Downstream Inundations Caused by Federal Flood Control Dam Operations in a Changing Climate: Getting the Proper Mix of Takings, Tort, and Compensation

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Downstream Inundations Caused by Federal Flood Control Dam Operations in a Changing Climate: Getting the Proper Mix of Takings, Tort, and Compensation

Robert Haskell Abrams¹ and Jacqueline Bertelsen²

Abstract: The 2012 United States Supreme Court decision in Arkansas Game & Fish Commission v. United States (AG&FC) presented the Court with a claim that the property of a landowner downstream of a flood control dam was taken without compensation as a result of non-permanent inundations of low lying portions of that parcel caused by a change in the dam’s pattern of releases. The Court held that that “government-induced flooding temporary in duration gains no automatic exemption from Takings Clause inspection” and must instead be tested according to the Court’s usual precedents governing temporary physical invasions and regulatory takings.³ On a remand that was circumscribed in its scope because several key issues were found to have been waived by the United States, the Federal Circuit held a taking had occurred. In doing so the Federal Circuit utilized language that understates the limitations on takings recoveries in such cases. Both the result and the remand opinion will encourage downstream landowners suffering inundation losses traceable to flood control dam operations to bring takings claims.

The AG&FC litigation comes at a time when flood control dam operations are becoming ever more prominent. Recent events throughout the nation attest to more extreme weather, both droughts and intense precipitation events. Dam operators, whose physical facilities were designed with reference to less extreme conditions, must adjust their operations to allow their dams to continue to function to provide optimal protection against massive flood damage. When those adjustments require increased or altered releases in comparison to past norms, those releases inevitably will lead to increases of inundation below the dam, raising the possibility that in some instances the increased inundation may cause significant harm for which the landowner will seek compensation.

This article analyzes the possible bases on which compensation can be granted. Congress, for the present, has eliminated the possibility of tort liability by granting federal flood control dam operators with blanket tort immunity. While the AG&FC decision bespeaks the possibility of Fifth Amendment taking of property liability, this article will argue that under takings standards,

¹ Professor of Law, Florida A & M University College of Law. Professor Abrams wishes to thank Cynthia McGee, Joan Matthews, Alex Couch, students at the College of Law during the 2012-14 calendar years for their research assistance on this article and on an Amicus Brief filed by Professors of Law Teaching in the Property Law and Water Rights Fields in Arkansas Game & Fish Commission v. United States, 568 U.S. ___, 133 S.Ct 511 (2012). That brief did not address the takings merits directly being solely directed at the need to measure the property rights of AG&FC by reference to state property law. The brief did argue that AG&FC did not enjoy blanket protection against inundation caused by the acts of a cor-riparian and that the invasion in the instant case was not likely to be considered a sufficient invasion of a protected property right to be a taking of property. Materials that constituted an early draft of portions of this article were distributed at the November 22, 2013 takings law conference held at the New York University Law School.

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³ 568 U.S. ___, ___, 133 S.Ct. 511, 522 (2012).
takings compensation rarely will be available to adversely affected landowners. Under long and unquestioned precedent, takings liability, rather than tort liability, attaches only when the downstream inundations are a deliberately planned aspect of the dam’s operation in the same way that a storage pool reservoir is part of the dam’s intended pattern of operation.

Even when releases are deliberately planned, very few adversely affected downstream landowners are likely to suffer a harm so disproportionate as to permit them to make a prima facie case of a taking vel non as required by the Court in AG&FC. Three separate lines of analysis make a taking of property unlikely: (1) in few, if any, jurisdictions will the state law definition of riparian rights include the right to be free of all inundations caused by actions of co-riparians, (2) the modern takings test elucidated in the Penn Central case cannot be satisfied, and, (3) the situation will be governed by the nuisance prevention line of cases in which governmental actions that prevent substantial harms to the public are not takings of property. In all of these contexts, the importance of the flood control is a factor in the determination that means most cases of temporary inundation either will not violate the property right or will not be found to be a taking of that right.

Without compensation, a clear possibility exists that some adversely affected landowners will suffer unfairly—they sustain harm that is disproportionate to that of others, and their share in the benefit is no more than similar to that of others. In the face of governmental tort immunity and the slim hope for a takings claim to succeed, this article argues in favor of the voluntary creation of a compensation system. While this can be done by before-the-fact condemnation, Congress has seldom required such action in the absence of planned zones of sacrifice as an element in a congressionally authorized program. Congress also may act after the fact through special legislation, or disaster relief, but those remedies are potentially quixotic rather than systemic. Private flood insurance can be purchased, but tends to be very costly and there is little evidence that it will be purchased, or that subsidized flood insurance is universally purchased. This article instead recommends creation of flood control districts that establish compensation funds financed by a tax on lands benefitted by the presence and operation of the flood control dam which greatly limits the risk of major losses to all such lands. Additionally, the scope of the governmental tort immunity should be reduced by excluding cases of gross negligence from the immunity, thereby striking a better balance between flood control dam operator freedom to respond to changing and exigent circumstances and doing so in wanton disregard of the harms that the actions might cause.
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I. The Problem of Downstream Inundations Caused by Flood Control Dam Operations

Flood control dams operate with a beguiling simplicity—build a dam and then close the gates to fill the reservoir when excessive amounts of water are flowing downstream; open the gates to empty the reservoir at times when there is less water flowing downstream. Ecologically both ends of the flow alteration spectrum are, to some degree, problematic. Dams interdict the natural flow and alter the river’s hydrograph. Dams limit or eliminate scouring heavy flows that move silt downstream and keep channels clear allowing greater volumes of water to move downstream more quickly without flooding. At the same time, some downstream flooding is part of the pre-dam natural cycle that provides nutrients to flooded areas and creates riparian habitat, to which the area’s species and ecology adapted over the eons. The presence of dams modifies the habitat in a myriad of ways, for instance, interfering with fish passage and destroying spawning regions. Dam discharges also change the flow’s characteristics, such as temperature and oxygen content and may add high concentrations of pollutants from sediments that have collected at the bottom of the dam’s pool that are roiled and re-suspended during periods of release.

In the face of these generally negative ecological consequences, the retention of water is justified by harm prevention that accompanies a vast reduction of downstream flooding during high flow periods. The flood risk reduction often is accompanied by collateral benefits such as hydropower generation, flat water recreation, navigation improvements, and public water supply security in the form of storage that can hedge against drought. The effects of water intentionally released from flood control dams are comparatively minor when all the other benefits and costs are toted up, and easily recede to being a tertiary concern, if considered at all. Part of the lack of concern for the human values affected by post-dam releases has a logical explanation. Those releases flow into the same channel that had previously seen comparatively little developmental activity precisely because its low-lying lands were flood-prone in pre-dam times. Somewhat ironically, the overall success of flood control dams at preventing and mitigating downstream flooding has encouraged ever more intensive use of what was previously the riverine flood plain.

The lack of focus on flood control dam releases is ending. Once built, the dam’s operations create an umbrella of comparative safety in which downstream development encroaches on the flood plain in reliance on protection against major floods and confidence that releases of stored water could and would be planned in a manner intended to minimize interference with downstream owners. The dam and its operations become a “new normal” that encourage development under the dam’s umbrella of safety against severe flooding and the dam’s pattern of releases that redefine the usual downstream flood plain. These homes,
businesses, and other land use patterns below the dam now may be in harm’s way if the pattern of releases changes.\(^4\)

What scientists describe as the “loss of stationarity” makes it a certainty that many flood control dams will change their patterns of releases. Stationarity is the concept that weather varies within a predictable range of extremes. For water infrastructure planners that historic experience guided the design and management of facility construction and subsequent dam operations. Increased variability of weather patterns has undermined the stationarity assumption of predictable norms of weather extremes.\(^5\) If the assumptions on which those operational choices were built are no longer valid, it is patent that changes in operations are needed to meet the new reality.\(^6\) Put most simply, climate change necessitates altered release patterns. It is axiomatic that a flood control dam operator must “empty” the reservoir so that it has space in which to store the next heavy flow event. The advent of more frequent intense precipitation events\(^7\) means that the prudent flood control dam operator at times will need to release stored waters more quickly than in an environment that featured less frequent intense rainfall events.\(^8\) When the dam operator increases the rapidity of the releases, downstream riparian owners will have higher volumes of water flowing past their tracts, which necessarily means that the watercourse will inundate additional portions of their land. If that inundation interferes with productive activity, the landowner will suffer a loss and complain, bringing dam releases under scrutiny.

Climate variability is not the only impetus to change release patterns, human factors may come into play. In the AG&FC litigation that serves as a focus for this article, for example, the Army Corps of Engineers was asked to limit the adverse effects of its historic pattern of releases to provide a longer growing season to low-lying farms, a change which in turn caused damage far downstream.\(^9\) The physical hydrologic lesson of that case is simple: changes in a dam’s release pattern cause water to move downstream at altered times and in altered amounts which can cause physical impacts to streamside downstream property that were not experienced previously. Thinking about the streambed as an open conduit having in many places little or no freeboard, any increase in a release adds water that necessarily will encroach on low-lying riparian lands adjacent to the watercourse that had remained dry under the prior release pattern.

\(^4\) Adding to the irony, the presence of these new and expanded human activities in the traditional flood plain increases their current risk of flood damage by hardening the landscape by creating more impervious surfaces which increase the amount of runoff during rainfall events and channel it into the waterways more suddenly.


\(^6\) See infra at QQQ (describing the reasons why and how dam operations might be altered).

\(^7\) QQQ[Get cite to NOAA or NWS data on this].

\(^8\) A dam operator might also find it prudent to maintain the pool at a lower level. Lowering the usual level of the pool may adversely affect other interests that a dam might serve, such as hydropower generation and storage for water supply.

\(^9\) See infra at QQQ.
Whether driven by climate change or human factors, changes in flood control dam operations hold the possibility of inundation-caused injury to properties situated downstream of the dam.

A. Giving the Problem Legal Visibility: The AG&FC litigation

The Arkansas Game & Fish Commission (AG&FC) case, perhaps because it was not prompted by concern linked to loss of stationarity, came into the judicial system in a sympathetic posture. After almost a half-century of experience operating the Clearwater Dam on the Black River in Missouri in one manner, the United States Army Corps of Engineers (Corps) adopted an eight-year series of temporary changes in that pattern beginning in 1993. The changes were made in response to a request by farmers below the dam who would obtain longer cultivation periods when their low-lying farmlands were not inundated. The Corps altered its longstanding release pattern, but the decision to provide that marginal farming benefit was flawed, or at least incomplete in its assessment of impacts. It did not foresee potentially serious adverse consequences to a valued ecological resource, one of the region’s few remaining bottomland hardwood forests, and plainly did not intend to make the AG&FC property a zone of sacrifice to be flooded as the means of obtaining other benefits.11

The Corps did not foresee that the forest, located in the Dave Donaldson Black River Wildlife Management Area in Arkansas, 115-miles downstream from the Clearwater Dam, would be seriously affected. Within the first year of the changed release regime, however, AG&FC, which owns the lands and oversees the Management Area, alerted the Corps to the increased flooding of their bottomlands. Prior to the change in the Corps dam operations, the forested area of the AG&FC regularly flooded, but that flooding almost always receded while the trees were dormant and before their summer growing season. In effect, the new pattern, if continued long enough, threatened to drown the trees because during the growing season the roots would be unable to absorb nutrients and oxygen necessary for photosynthesis.12 AG&FC gave warning to the Corps at a time when the permanent damage to the forest could have been avoided. Initially, and for a period of years, the Corps did not agree that its change in operations

10 The chronology of events is recounted in detail by the Federal Circuit in its initial opinion in the case. See Arkansas Game & Fish Comm'n v. U.S., 637 F.3d 1366, 1369-73 (Fed. Cir. 2011).

11 A particularly succinct statement of what the Corps did and why it caused an adverse effect on AG&FC appears in Justice Ginsburg’s opinion for the Court:

In 1993, the Corps approved a planned deviation in response to requests from farmers. From September to December 1993, the Corps released water from the Dam at a slower rate than usual, providing downstream farmers with a longer harvest time. As a result, more water than usual accumulated in Clearwater Lake behind the Dam. To reduce the accumulation, the Corps extended the period in which a high amount of water would be released. The [AG&F] Commission maintained this extension yielded downstream flooding in the Management Area, above historical norms, during the tree-growing season, which runs from April to October. If the Corps had released the water more rapidly in the fall of 1993, in accordance with the Manual and with past practice, there would have been short-term waves of flooding which would have receded quickly. The lower rate of release in the fall, however, extended the period of flooding well into the following spring and summer. While the deviation benefited farmers, it interfered with the Management Area’s tree-growing season.

was the cause of the longer period of distant downstream inundation. Quite late in the process, the Corps recognized that its altered release pattern could be capable of negatively affecting the forest at, what was for the trees, a critical time of the year.\footnote{Despite conceding its role in the changed pattern of inundation, the Corps never fully conceded its actions were the sole cause of the loss of the hardwoods. The Corps maintained that a multi-year period of summer drought was responsible for so weakening the trees that they could not recover once the previous regime of dam releases was reestablished and the root zone was clear of water during the growing season. This factual issue was found against the Corps by the Court of Federal Claims,\textit{ 87 Fed. Cl. at} 633, a ruling that was sustained on appeal. \textit{Ark. Game & Fish Comm'n v. United States, 736 F.3d 1364, 1371-72 (Fed. Cir. 2013). See, Defendant's Post Trial Brief at} 9, \textit{Arkansas Game & Fish Comm'n v. United States, 87 Fed. Cl. 594, 623 (2009) (No. 141). The issues the Corps may have raised with regard to intervening causes were not properly preserved for appeal.}}

With the advantage of hindsight and knowledge of the consequences, the unfortunate choice made by the Corps stands out in high relief. The marginal farming gains, which appear to be the only benefits of the change,\footnote{A review of the litigation materials available on-line raise no other reason for the change.} are not an important or substantial flood control benefit. More importantly, the benefit garnered by reduced periods of farm inundation compares unfavorably to the forest loss.\footnote{This author could find no record in the materials relating to the case that quantified the farming benefit.} The loss is made worse because the Corps, for a time, seemed to turn a deaf ear on the calls from AG&FC imploring the Corps to revert to its past release pattern. Then, once the Corps more fully engaged on the issue and reinstituted the prior release pattern, it was too late to save the portion of the forest that succumbed to the stresses.

The loss to AG&FC was substantial—it included 18 million board feet of hardwood lumber, which together with the cost of reclaiming the flooded area, eventually led to an award by the Court of Federal Claims in excess of $5.6 million dollars.\footnote{Ark. Game & Fish Comm'n v. United States,\textit{ 87 Fed. Cl. at} 647. Interest added more than $100,000 to the award.} Together, those facts paint a picture of the Corps as either unable to measure the consequences of its actions or insensitive to the impacts of its actions, or both.\footnote{It is tempting to pillory the Corps for its inaction and failure to promptly restore the old release plan. The Corps, however, had taken steps to obtain input from an array of stakeholders potentially affected by the releases, establishing two ad hoc commissions. Those commissions assisted the Corps for almost eight years, but for the most part did not reach consensus on a changed long-term operating plan. AG&FC was a participant in that process. \textit{Id.} What remains less clear is why the Corps' own technical assessments of the situation were so slow to model more accurately the effects of the changed releases on the Donaldson Management Area.}

\section{The Course of Litigation Prior to Reaching the United States Supreme Court}

The threshold litigation problem for AG&FC was that the Corps could not be sued for negligence because Congress, beginning in 1928 before any of the flood control dams in the Mississippi-Missouri Basin were built, granted federal dam operators statutory tort immunity for the operation of flood control dams.\footnote{See, 33 U.S.C. § 702c. Act of May 15, 1928, c. 569, § 3, 45 Stat. 535.} Unable to pursue a tort remedy, AG&FC instead sought relief by claiming that the series of longer periods of inundation constituted a physical invasion of its land amounting to a Fifth Amendment taking of property without compensation.
The Court of Federal Claims ruled, in essence, that the Corps had taken a property interest in the form of a temporary flowage easement in the Management Area because the changes in the flow regime caused “intermittent, frequent, and inevitably recurring” flooding that resulted in the destruction of a significant amount of timber.\(^{19}\) The court further found that, because the flooding and subsequent damage to the timber were foreseeable consequences of the changes in the flow regime, the government’s actions amounted to a permanent taking.\(^{20}\)

The Corps defended on both the facts and the law. As a factual matter, the Corps relied on a computer model demonstrating that the deviations in the flow regime alone were not sufficient to result in substantial changes in the Management Area’s flood pattern, but that “natural rainfall and runoff, plus the timing of the water levels” may result in greater periods of inundation.\(^{21}\) In addition, the Corps asserted that its actions were not the sole cause of the loss of the hardwoods. The Corps maintained that the summer droughts in 1999 and 2000, were "naturally occurring intervening event[s] . . . that caused the massive, the devastating mortality” of the hardwoods.\(^{22}\) The Court of Federal Claims was not persuaded by the Corps’ arguments and found that the Corps’ deviations from the long-followed release plan were responsible for the Management Area’s increased flooding and resulted in the destruction of the timber in the Management Area from 1993 through 2000.\(^{23}\)

The legal argument of the Corps was a narrow one. The Corps argued that only permanent physical invasions of this type, as opposed to a temporary inundation, could be a taking of property under the relevant Supreme Court precedents. In particular, the Corps relied on Sanguinetti v. United States.\(^{24}\) In Sanguinetti, the Supreme Court found that temporary, increased flooding of private land was not a taking when that land had periodically flooded prior to the construction of a canal.\(^{25}\) The Corps contended that since prior and subsequent to the construction of the dam, the Management Area was subjected to flooding, and the flow deviations which had caused the increased inundation periods had ceased, its actions did not amount to a taking.\(^{26}\) In the Court of Federal Claims, this argument was rejected, with the court saying:

\(^{19}\) 87 Fed. Cl. at 619-620.

\(^{20}\) Id. at 624.

\(^{21}\) Id. at 608-09, 627-29.

\(^{22}\) Id. at 623 (citing Dr. Baker’s testimony and arguing the summer droughts in 1999 to 2000 were intervening causes that broke “the link between the increased flooding probability and the damage to the trees”).

\(^{23}\) 87 Fed. Cl. at 634. The ruling was sustained on appeal. 736 F.3d at 1371-72.

\(^{24}\) 264 U.S. 146 (1924).

\(^{25}\) Id. at 149-50 (“[i]t 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.”).

\(^{26}\) Brief for Defendant-Appellant at 20-21, Ark. Game & Fish Comm’n v. United States, 637 F.3d 1366 (Fed. Cir. 2011) (No. ), 2010 WL 301858 (C.A.Fed.).
[A] plaintiff need not show that its property "suffer[ed] an effectual destruction or a permanent and exclusive occupation by government runoff" to recover on a takings claim based on a flowage easement. Rather, recovery based on a government's taking would be permitted even if the landowner eventually was able to reclaim his land or the intrusions of water were halted. . . . Accordingly, the Commission has met its burden of proving that the Corps' releases were "intermittent, frequent, and inevitably recurring floodings" that support a taking, rather than "isolated invasions" that might merely constitute a tort. 27

The United States Circuit Court for the Federal Circuit, by a 2-1 vote, reversed the finding of a taking. The Federal Circuit majority ruling was very narrow, relying on a preemptive legal ground: inundations of property downstream of a flood control dam could be a taking of property only if that flooding was permanent or intended to be continually repeated. 28 In support of its bright-line test, the Federal Circuit built its own argument based on Sanguinetti v. United States, 29 which the court construed as having established a special rule for flooding cases to the effect that non-permanent downstream inundation caused by Corps dam operations could not be a taking of property. 30 Since the changes in the AG&FC case were always deemed to be interim operating rules, and thus temporary, and the eventual reinstatement of the old regime ceased the extended periods of flooding, the court found there could be no taking of property.

2. The AG&FC Litigation in the United States Supreme Court and on Remand

The United States Supreme Court “granted certiorari to resolve the question whether government actions that cause repeated floodings must be permanent or inevitably recurring to constitute a taking of property.” 31 The Court disagreed with the Federal Circuit’s interpretation given to Sanguinetti and reversed the Federal Circuit stating, “We rule today, simply and only, that government-induced flooding temporary in duration gains no automatic exemption from Takings Clause inspection.” (Emphasis added.) 32 Despite the narrow holding, the Court’s opinion was replete with dicta offering guidance on remand relating to how its takings’ precedents help identify issues to be considered in cases claiming takings as a result of less than permanent flood control operations. 33 One of those issues “is the degree to which the invasion is

27 87 Fed. Cl. at 618-19 (quoting Ridge Line. 346 F.3d at 1353, 1357, 1358 and Fromme, 412 F.2d at 1196).
29 264 U.S. 146 (1924).
30 637 F.3d at 1374.
32 133 S.Ct., at 522.
33 Id. at 522-23.
intended or is the foreseeable result of authorized government action.\textsuperscript{34} The Court’s remand also identified issues of fact finding and underlying state property law, which, if properly preserved for review, were issues the Federal Circuit should consider on remand for a proper Fifth Amendment takings analysis.

In late 2013 the Court of Appeals for the Federal Circuit issued its ruling on remand. This time the original Court of Claims decision that had found a taking of AG&FC’s property\textsuperscript{35} was affirmed.\textsuperscript{36} The Federal Circuit found that several of the key issues identified by the Supreme Court as relevant for a takings analysis had not been preserved for review. The Corps failed to raise or preserve a number of important lines of inquiry.\textsuperscript{37} The issues foreclosed included the nature of the state law property rights claimed to have been taken and the extent to which those rights support AG&FC’s reasonable investment-backed expectations to be free of changed patterns of inundation through government action. Those two issues are intertwined because an important element of that expectation is the underlying state water law, which in the AG&FC setting is Arkansas’ law of reasonable use riparianism.

The Corps also failed to raise the applicability of the nuisance prevention doctrine to its operation of flood control dams, which often functions in a manner similar to an affirmative defense to takings claims. Otherwise actionable takings claims fail because the governmental regulation or action protects the public against a nuisance, or in some other manner forestalls harm to the public by burdening the landowner’s parcel. Within the nuisance prevention cases, there is a subcategory in which government regulation of landowners, or actions taken to protect against harms that burden landowners, impose a cost on one or more of the landowners to prevent more serious injury to the common welfare. As a terminological matter, these cases will be referred to as the triage subcategory of the nuisance prevention doctrine cases. The leading case in the triage subcategory is Miller v. Schoene\textsuperscript{38} in which the Supreme Court refused to find a taking of property when the government required landowners to destroy their own property at their own expense in order to avert a public harm that appeared likely to occur if the private property of the regulated owners was not destroyed. As discussed more fully later in this article,\textsuperscript{39} the nuisance prevention line of cases, when applied, significantly narrows the scope of what sorts of downstream adverse effects are takings of property under the Fifth Amendment.

\textsuperscript{34} Id. at 522. The Court’s own citation in support of that statement is as follows: John Horstmann Co. v. United States, 257 U.S. 138, 146, 42 S.Ct. 58, 66 L.Ed. 171 (1921) (no takings liability when damage caused by government action could not have been foreseen). See also Ridge Line, Inc. v. United States, 346 F.3d 1346, 1355–1356 (C.A.Fed.2003): In re Chicago, Milwaukee, St. Paul & Pacific R. Co., 799 F.2d 317, 325–326 (C.A.7 1986). This article will criticize the simplistic approach taken by the Federal Circuit when it undertook that inquiry on remand. See infra at QQQ.

\textsuperscript{35} 87 Fed. Cl. 594.

\textsuperscript{36} 736 F.3d 1364.

\textsuperscript{37} Id. at 1369.

\textsuperscript{38} 276 U.S. 272 (1928).

\textsuperscript{39} See infra at QQQ.
The Federal Circuit finding of a taking on remand adopted broad language that tended to eclipse the narrowed scope of review attributable to the Corps’ litigation strategy that resulted in the non-preservation of several issues that might have altered the result. As written, the Federal Circuit opinion suggests that a claimant can recover for a taking of property by proving only objective foreseeability of harm due to increased flooding linked to a pattern of releases that confers a benefit of lesser flooding on others situated below a dam. That use of foreseeability badly misstates the rules laid down by the precedents upon which the Federal Circuit relied.

The apparent breadth of the AG&FC remand ruling will encourage litigation by downstream landowners adversely affected by flood control dam releases or changes in past patterns of releases (unless those releases are very infrequent or a response to an exigent problem). Moreover, as will be argued at length in this article, the eventual AG&FC decision rendered by the Court of Claims, and now affirmed by the Federal Circuit, transmutes flooding case takings law into a determination that closely tracks the elements of tort recovery. If not corrected, that reading of takings law has the potential to make the federal treasury the insurer of an extensive array of downstream losses caused by federal dam operations. The tort-like reasoning that led to the eventual result favoring AG&FC is just that, a governmental tort. While in some cases governmental actions that constitute torts are also takings of property under the Constitution, not all tortious actions violate the Fifth Amendment. To accept that “tort-as-taking” substitution usurps the clear power and intent of Congress when it immunized federal flood control dam operators from tort liability. A finer grained takings analysis must be utilized.

B. Generalizing the Problem: Constructing a Legal Paradigm for Operating Flood Control Dams Fairly

Taking on the perspective of a flood control dam operator for a moment, the loss of stationarity greatly complicates dam operations and demands reconsideration of past operating decisions. The loss of stationarity implies that prudent operational planning must consider the potential for more intense flood events and more prolonged or intense droughts. Focusing on floods alone, flood control potential is maximized when the reservoir level is kept as low as possible leaving room to impound potential flood waters and release them after the period of excessive runoff and flow has ended. Two elements in that scenario auger in favor of releasing stored water at higher than historical rates. First, if the precipitation events are expected to be more intense than previously the case, there will be more water in need of being released and that will require higher rates to accomplish the release in the same period of time. Second, the loss of

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40 736 F.3d at 1373, n. 3.
41 Id. at 1375, n. 5.
42 See infra at QQQ.
43 See infra at QQQ[x ref to wherever we cite the Idecker complaint and its tracking of AG&FC remand].
44 See infra at QQQ
stationarity increases the potential for more storms following on the heels of their predecessor, making it important to release water more rapidly as a form of preparation for a potential next storm. If the rates of release increase, downstream inundation increases in comparison to the previous experience. The pattern of releases is within the control of the dam operator, but the larger strategy and the risk that is being mitigated, is being dictated by the patterns of precipitation and drought. Not all dam operations will be changed to include more rapid releases in response to the loss of stationarity, but some will and that response, at a societal level, is a good and logical one. When those changes are made, there will be more cases like AG&FC when the altered release patterns cause losses occasioned by new downstream inundations. AG&FC has opened the door to takings claims in those cases. Despite the sympathetic posture of the AG&FC facts, the remainder of this article explores the reasons why there should be very few takings recoveries for injuries caused by releases from flood control dams.

At a very pragmatic level, the concern ought to be about fair treatment and equitable sharing of the benefits and burdens of flood control efforts. Despite the burdens on downstream riparians that may accompany releases of stored water in excess of either the native flow of the river or dam-altered historic patterns of releases, their situation brings to mind a quip made in relation to garbage by a member of the waste disposal industry: “Everyone wants us to pick up the trash, but no one wants us to put it down.” All of the landowners below the dam are very happy to have the benefits of the dam’s protection against major flooding, but none of those owners want the stored excess waters released in a manner that causes them to suffer even temporary partial inundations that adversely affect what has become the pattern of full enjoyment of their parcels. When the losses downstream are mainly on par with one another, or not too severe, that is fair enough to all—they benefit by the protection against more extreme flooding and all are at risk of small or similar losses due to temporary inundations associated with the release of the stored water. When, however, a few of the downstream landowners suffer more substantial losses, disproportionate to those of the other downstream landowners, in the absence of compensation, the result no longer seems fair. The next sections of this Article will demonstrate that that redress of those disproportionate losses will seldom be available under current law, and that the aspect of current law that prevents those losses from being found uncompensated takings of property is appropriate. Finally, the article will suggest two alternatives to takings as a means of providing redress for disproportionate losses, a slight relaxation of governmental tort immunity, and more broadly, the establishment of flood control

45 For dams that have the ability to do double service relating to both flood control and water supply, meeting operational goals for flood prevention storage capacity and drought mitigation water supply are in tension with one another. On the flood prevention side, the basic strategy is to keep the reservoir as empty as possible, in order to store more water during an extreme precipitation event. On the water supply side, the basic strategy is to keep the reservoir as full as possible, to have the greatest amount in storage to be released as needed to combat the effects of drought. Melding those two strategies, the dam operator would attempt to keep the pool as full as possible, but only so full that it can be rapidly lowered by releases when an intense potentially flood producing rainfall event is predicted.

districts that lay taxes on all benefitted parcels to create a fund from which compensation can be paid.

II. The Difficulty of Establishing a Taking vel non Based on Temporary Inundation of the Claimant’s Property

As noted previously, the United States Supreme Court decision in Arkansas Game & Fish Commission v. United States\(^47\) ruled very narrowly on the Fifth Amendment taking of property issue. Along with its holding that a non-permanent inundation of a portion of the AG&FC’s lands\(^48\) can, in limited circumstances, be a taking, the Court added dicta to serve as guidance on remand and in similar future cases. That dicta began in the very next sentence after Justice Ginsburg, writing for a unanimous Court,\(^49\) announced the succinct and narrow reversal of the decision below of the Federal Circuit:

We rule today, simply and only, that government-induced flooding temporary in duration gains no automatic exemption from Takings Clause inspection. When regulation or temporary physical invasion by government interferes with private property, our decisions recognize, time is indeed a factor in determining the existence vel non of a compensable taking.\(^50\)

Establishing a taking vel non places several burdens on the claimant. As indicated in the language set out above, the Court expressly pointed out that duration of the flooding was a factor.\(^51\) The Court went on to mention three other aspects that figure in the takings analysis: “the degree to which the invasion is intended or is the foreseeable result of authorized government action,” the character of the land and the claimant’s investment-backed expectations, and the severity of the interference with the property.\(^52\) The Court also pointed out that there were a number of issues it neither reached nor reviewed because of the posture of the case, and noted that on remand, if they had been properly preserved, they could be considered by the Federal Circuit. These issues included a possible legal distinction between upstream and downstream inundation, the nature of the underlying property right, and a number of factual findings.\(^53\)

\(^{47}\) 133 S.Ct 511 (2012).

\(^{48}\) Arkansas Game & Fish Comm'n v. United States, 87 Fed. Cl. 594 (2009).

\(^{49}\) Justice Kagan did not participate.

\(^{50}\) 568 U.S. at ___, 133 S.Ct. at 522.

\(^{51}\) Presumably the shorter the duration, the less likely the action is to effect a taking. The duration, so long as it is not permanent, is not a key factor in the lines of analysis presented in this article. None of the arguments against a finding of taking rely on the short-term nature of the imposition on the landowner and the concern for unfairness to landowners would be no less if a substantial and disproportionate loss occurs over a short period of time.

\(^{52}\) Id.

\(^{53}\) Id. 133 S.Ct. at 521-22
When the Court’s opinion is removed from its case specific context, the methodology to be followed in downstream flooding takings cases can be broken down into a series of more or less sequential steps:

- determining that the case is within the scope of the waiver of governmental immunity that authorizes it to be heard by the Court of Federal Claims, a determination that turns on analysis of whether the case falls on the takings side of the tort-takings dividing line;
- determining the state law content of the property right that is claimed to be taken and on that basis applying the typical regulatory takings tests announced by *Penn Central*\(^54\) and other cases; and
- assessing whether the governmental action qualifies as either nuisance prevention or action taken to prevent great public harm.

To recover for a taking of property, the claimant must prevail on all three inquiries or else no taking will be found. These topics are considered in turn and all of them are difficult for a claimant to accomplish, even a claimant who suffers a substantial and disproportionate loss.

### A. Crossing the Tort Immunity-Takings Claim Divide

While addressed by the Federal Circuit on remand under the label of foreseeability, a review of the cases demonstrates that the underlying issue is quasi-jurisdictional and relies on a foreseeability analysis that is not coextensive with typical tort law concepts. In cases like *AG&FC*, a claimant suing the federal government for a taking first must establish that the case is properly within the “purview” of the Court of Federal Claims. The term “purview” is being coined to describe a nether region between the subject matter jurisdiction of the Court of Federal Claims and the merits of cases lodged there. This is a form of jurisdiction-to-determine-jurisdiction. The court must examine the facts surrounding the claim to determine whether the claim is within the limited waiver of sovereign immunity that defines the authority and jurisdiction of the Court of Federal Claims to grant relief under the Tucker Act. The relevant statutory language permits the Court of Federal Claims to hear cases:

… against the United States founded either upon the Constitution, or any Act of Congress or any regulation of an executive department, or upon any express or implied contract with the United States, or for liquidated or unliquidated damages in cases not sounding in tort.\(^55\)

In such cases, dismissals of non-frivolous claims that fall on the tort side of the tort-taking dichotomy are treated as dismissals for failure to state a claim on which relief can be granted,


\(^{55}\) 28 U.S.C. § 1491(a)(1). In the flood control area, in addition to the Tucker Act limitation on tort recoveries there also is an express tort immunity statute. See 33 U.S.C. §702c.
rather than dismissals due to a lack of subject matter jurisdiction.\textsuperscript{56} Making the showing requires the claimant to locate the case as falling on the taking side of the divide between attempted recoveries that sound in tort and those based on takings liability, a showing that emphasizes a specialized form of foreseeability.

1. The Degree of Foreseeability and Intentionality Required to Avoid Immunity and the Overbroad Reading of Precedents by the Federal Circuit on Remand

On remand, the Federal Circuit limited its opinion to issues preserved by the parties that had been raised in the initial appeal from the Court of Federal Claims.\textsuperscript{57} The court then further subdivided its review of the takings questions (as opposed to some evidentiary questions it had declined to reach on the original appeal) into five separate categories, one of which it terms “Foreseeability.”\textsuperscript{58} The past precedents cited by the Federal Circuit make it quite clear that what the Federal Circuit termed the “Foreseeability” issue is actually the litmus tort-takings issue for avoiding immunity and invoking its subject matter jurisdiction. In that regard, the Federal Circuit relied on its earlier decision in Moden v. United States\textsuperscript{59} to explicate the standard being applied. Moden involved an appeal from a subject matter jurisdiction\textsuperscript{60} dismissal of a claim by landowners that the TCE contamination of their property, arguably traceable to improper use of that solvent at the neighboring air force base, took their property in violation of the Fifth Amendment. In Moden the Federal Circuit stated:

The government contends that [to be within the Court of Federal Claims jurisdiction] the resulting injury must be foreseeable from the authorized government act, whereas the Modens and \textit{amicus curiae}, Defenders of Property Rights, contend that the authorized government act need only be the “cause-in-fact” of the resulting injury. Simplified somewhat, the government's interpretation requires that the injury was the likely result of the act, whereas the Modens’ interpretation requires only that the act was the likely cause of the injury. The government's interpretation finds support in the language of the standard, which refers to a “direct, natural, or probable result,” not a direct, natural, or probable cause. The government's interpretation also finds support in our case law. In [Ridge Line Inc. v. United States], we stated that the court must determine whether the alleged injury was the “predictable result of the government action.” This \textit{Ridge}


\textsuperscript{57} Arkansas Game & Fish Comm'n v. United States, 736 F.3d 1364, 1369 (2013).

\textsuperscript{58} Id. at 1369-75. The other four are “Duration,” “Causation,” “Severity,” and “Reasonable Investment-Backed Expectations.”

\textsuperscript{59} 404 F.3d 1335, 1343 (Fed. Cir. 2005).

\textsuperscript{60} The terminology used in \textit{Moden} was subject matter jurisdiction rather than failure to state a claim on which relief can be granted. Id.
Line interpretation itself finds support in a long line of controlling precedent. (citations omitted).\textsuperscript{61}

The Moden court explained its view in greater detail in a footnote:

Recently, we summarized the relevant aspect of Ridge Line as requiring that “a property owner must prove that the asserted government invasion of property interests allegedly effecting a taking ‘was the predictable result of the government action,’ either because it was ‘the direct or necessary result’ of the act or because it was ‘within the contemplation of or reasonably to be anticipated by the government.’” \textsuperscript{62}

In fact, this is a high standard, it moves beyond a mere cause-in-fact relationship evidenced by a strong post hoc argument, to require obviousness as the words “direct” and “necessary” imply, or alternatively, an even more subjective standard under which the injury must be “within the contemplation” of the government at the time that it acts. The cases cited for the proposition, importantly, include the exact same Supreme Court case and page citation, John Horstmann Co. v. United States,\textsuperscript{63} as does Justice Ginsburg’s AG&FC opinion when it addresses the role of foreseeability in takings claims. Horstmann involved an unprecedented 19-foot water-level rise in a lake whose water level had not varied more than 2 feet in the preceding two decades. The extraordinary rise occurred in the immediate aftermath of the beginning of operation of a federal irrigation project that was transporting water in unlined canals in an area having porous soils. Based on the science of the time, the government could not be charged with knowledge that the lake level would rise and destroy the claimant’s soda mining operations.

Returning to the AG&FC setting, there is no basis for concluding, as did the Federal Circuit,\textsuperscript{64} that the Corps intended to invade AG&FC’s rights. The record supports the Corps’ clear, albeit mistaken belief that the changes in operations were not going to have major impacts on the forest 115-miles downstream of the Clearwater Dam. Similarly the standard that the Federal Circuit purports to apply adds that the adverse result cannot be the “incidental or consequential” result of an authorized activity, is the wrong standard. Finally, nothing in the entire record of the case suggests that the Corps deliberately contemplated making the AG&FC parcel a downstream site to be utilized or sacrificed to its efforts to limit the inundation of the

\textsuperscript{61} Id.


\textsuperscript{63} AG&FC, 133 S.Ct. at 522. The precise language of the Court is as follows: “Also relevant to the takings inquiry is the degree to which the invasion is intended or is the foreseeable result of authorized government action. See, e.g., John Horstmann Co. v. United States, 257 U.S. 138, 146, 42 S.Ct. 58, 66 L.Ed. 171.”

\textsuperscript{64} Arkansas Game & Fish Comm’n v. United States, 736 F.3d 1364, 1372-73 (2013).
upstream farming parcels. In cases where there is an intended zone of sacrifice for occasional disposal of water, both Congress and the Corps have opted\textsuperscript{65} for condemnation.\textsuperscript{66}

Even more telling on the issue of the degree of foreseeability required to cross the tort-takings divide was another of the cases cited by the Supreme Court in highlighting the foreseeability issue for remand, In re Chicago, Milwaukee, St. Paul & Pacific R. Co.\textsuperscript{67} In the portion of In re Chicago pointed out by the Court’s citation, the Seventh Circuit poses a hypothetical and issues a warning, supported by Supreme Court precedent, against allowing this analysis to transmute torts into takings:

So when does error “take” property? Suppose agents of the FBI, while chasing a kidnapper, demolish someone’s car, or suppose a postal van runs over a child’s tricycle. Do these accidents “take” the car and tricycle? Certainly they are casualties of the operation of government. Yet despite the contention that all torts by the government are takings, the Supreme Court has distinguished the two. Accidental, unintended injuries inflicted by governmental actors are treated as torts, not takings. And torts are compensable only to the extent the Federal Tort Claims Act permits. The Court has never treated limitations on liability in tort as mere pleading obstacles, to be surmounted by shifting ground to the Tucker Act.\textsuperscript{68}

On remand in AG&FC the Federal Circuit answered the foreseeability question it had posed in this way: “the Corps of Engineers could have foreseen that the series of deviations approved during the 1990s would lead to substantially increased flooding of the Management Area and, ultimately, to the loss of large numbers of trees there.”\textsuperscript{69} For that reason the Federal Circuit is finding a taking on facts and doctrines that are precisely the kind of tort concepts that the Supreme Court and the precedents it cites have said should not be deemed takings,\textsuperscript{70} because the losses were “accidental” or “unintended injuries.”

\section*{2. Congressionally Granted Immunity and the Separation of Powers Error of Transmuting Intentional Torts into Takings}

\textsuperscript{65}A later portion of this Article will argue that even were AG&FC and others similarly situated able to place the case on the takings side of the tort-taking divide and fulfill all of elements necessary to make out a taking, the nuisance prevention line of cases would operate to prevent a finding of taking. See infra at QQQ.

\textsuperscript{66}QQQ\cite cite congressional choice to condemn for spillway.

\textsuperscript{67}799 F.2d 317 (C.A.7 1986). The pages pointed to by the Court in its citation of the case were pages 325-26.

\textsuperscript{68}799 F.2d at 325-26.

\textsuperscript{69}Arkansas Game & Fish Comm'n v. United States, 736 F.3d 1364, 1372-73 (2013) (emphasis added).

\textsuperscript{70}The list of cases that follow in support of this point are the cases cited with the descriptions provided on this point by In re Chicago, supra note 66: Keokuk & Hamilton Bridge Co. v. United States, 260 U.S. 125 (1922) (damage to a bridge caused by the government’s blasting is not a taking); YMCA v. United States, 395 U.S. 85 (1969) (damage to a building caused by using it as a military command post during an insurrection in Panama is not a taking). The following cases were cited as supporting the In re Chicago statement that unintended injuries are treated as torts, not takings: United States v. James, 478 U.S. 597 (1986); Kosak v. United States, 465 U.S. 848 (1984); Laird v. Nelms, 406 U.S. 797 (1972).
Dam operators engaging in flood control, such as the Corps in relation to the Clearwater Dam in *AG&FC*, inherit a predicament that is seldom, if ever, one of their own making. Congress, when it authorizes the construction of flood control projects, is responding to strong public safety and welfare concerns. The underlying physical problem of too much water at various times in various parts of the watershed is patent. The maps showing the extent of the Flood of 1927,\(^{71}\) the first chapter in the history leading to the construction of Clearwater Dam, demonstrate the destructive possibilities of flooding in the Black River basin and its contribution to the broader flooding further downstream after its confluence with other rivers. The building of the dam and its operation are an effort at risk management in the face of an uncontrolled force—the rain falls when and as it will. The problem is not one of the Corps’ making, and the risk management decision to have a dam is Congress’ response to a problem of regional concern.

Once the dam is built, its operations are a deliberate effort to impound water which would otherwise have damaging downstream effects, and release it in a pattern that is intended to provide an optimal degree of protection and risk reduction to downstream properties. Most emphatically, this is not a zero sum game; some release patterns will be substantially more advantageous than will others. Inevitably, the releases have downstream effects, some of which are adverse to the interests of individual landowners.\(^{72}\) To provide flood control, the pool behind the dam must be lowered according to some pattern of the Corps’ choosing. It would be ludicrous to forbid the Corps from seeking to obtain benefits from its pattern of releases. In fact, whether successful or not, the Corps in altering the release patterns of the Clearwater Dam was attempting to increase the total social welfare derived from the pattern of its operations. In the *AG&FC* case, the Corps was lobbied for the changed pattern of releases by farming interests who were being harmed by the previous pattern of releases. If changes in downstream inundation patterns are takings whenever a landowner is substantially disadvantaged, the Corps’ ability to provide the optimal pattern of flood control and releases is severely compromised. The Corps becomes an involuntary insurer of all such downstream losses. That would violate a clearly enunciated federal policy and will hamstring efforts to better adapt to climate change in the future. The Supreme Court addressed this precise policy matter in *Horstmann* when it refused to find a taking in regard to unforeseen effects: “Any other conclusion would deter from useful enterprises on account of a dread of incurring unforeseen and immeasurable liability.”\(^{73}\)

Congress, when it immunized the Corps from all tort liability for flood control structures and their operations, was trying to ensure that the Corps was in a position to operate the dams as it saw best. To do that, the Corps needed to be free of potential claims from any landowner downstream who might be adversely affected. “No liability of any kind shall attach to or rest


\(^{72}\) Some downstream effects can be positive, such as releases for environmentally valuable flows, or releases for irrigation, or downstream municipal use in drier seasons.

upon the United States for any damage from or by floods or flood waters at any place ... .”

This blanket tort immunity is not limited in any way by the Tucker Act partial waiver of sovereign immunity, and applies nationwide to any project involving flood control whether administered by the Corps of Engineers, the Bureau of Reclamation, or any other federal entity. Congress clearly understood the need for dam operations to be within the discretion of the Corps in cases resembling AG&FC. That discretion was not to be circumscribed by every nuance of downstream effect traceable to the flood control efforts. Condemnation remains necessary for the dam’s footprint and its intended storage reservoir, but not for the remainder of the downstream effects, unless deliberately chosen as an intended form of storage (as contrasted to release) of water.

The ability freely to reconsider and modify dam flood control operations is an increasingly important principle. As previously described, situations similar to that encountered in the AG&FC case will become more common with the loss of stationarity. The Corps, and others operating dams for flood control, increasingly will be faced with the challenge of devising new release patterns to attempt to minimize adverse impacts of flooding and as a hedge against drought. In the face of such public exigency, there can be no viable reliance on any singular pattern of water releases. Dam operators will face conditions not foreseen at the time the dam was built and initial patterns of operations were planned. The one choice that the citizenry rightfully expects is that the operations chosen will be an attempt to minimize the adverse impacts. There will be winners and losers, but other than cases of deliberate use of downstream properties to function as additional temporary reservoir capacity, the takings clause of the Constitution is not implicated by the Corps’ discretionary operational choices.

On remand in AG&FC, the Federal Circuit made an oblique reference to this issue when it addressed in broad dicta an upstream/downstream distinction belatedly raised by the Corps. On remand, the Corps, for the first time, urged that there is a distinct and legally significant difference between inundating parcels upstream and those downstream of a flood control dam. The Federal Circuit summarily rejected the argument. It noted that because the change caused harm to AG&FC in pursuit of conferring a benefit for the low-lying farms, the Corps could not

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[75] An argument can be made that the specific grant of absolute immunity would require an even greater showing of planned use of the claimants' lands for disposal of flood waters than the previous discussion. See, e.g., Aetna Ins. Co. v. United States, 628 F.2d 1201, 1203 (9th Cir. 1980).

[76] See supra at QQQ.

[77] At the time it granted tort immunity for federal flood control efforts Congress appears to have been well aware that losses caused by flood control actions are not takings and would go uncompensated. In 33 U.S.C. §702c, Congress expressly requires condemnation be used for some landowners who would be exposed to a greater possibility of uncompensated loss that would arise in consequence of flooding associated with the operation of flood control efforts.

[78] See supra at QQQ.
raise any defense based on the general benefit being provided to all downstream of the dam. That rejection of the Corps’ argument, although relevant to the severity of loss issue that a claimant must be able to show under the regulatory takings doctrine of *Penn Central*, obscures the thrust of the upstream-downstream distinction.

First, that rejection of the Corps’ argument overlooks the simple reality just described—in most cases the water stored in the dam will have to be released and when it is released, due to conservation of matter and the law of gravity, it has to go somewhere and that somewhere is downstream of the dam’s outlet. While there may be some cases where there is sufficient capacity in the dam and favorable downstream conditions so that a release pattern can be totally benign, the far more common pattern will be that some downstream parcels get greater benefits from the dam’s chosen patterns of operations than others. Correlatively, some downstream parcels will be subjected to less favorable or adverse effects of the chosen release pattern. Under the Federal Circuit’s improvidently broad language, if there are any “winners” all “losers” whose losses cross the *de minimis* threshold have compensable injuries. Second, the position of the Federal Circuit ignores the fact that even the “losers” remain beneficiaries of the dam’s presence because all persons and landowners downstream benefit from the increases to safety and reduction of calamitous risks that the dam is providing. In the AG&FC setting, if the loss to AG&FC is a taking, so, too, would be the loss of someone whose house now floods during a higher release period as a direct and provable consequence of the return to the old release pattern. Upon return to the old pattern of releases, what (other than the statute of limitations) is to stop the farmers whose requests prompted the change in the first place from claiming that their lands were taken by the original operating plan? Imposing that form of cause-in-fact driven liability on the government is not a tenable result. Finally, the Federal Circuit’s approach fails to account in any way for the harm that is being prevented by the dam’s operation that can prevent all takings liability.

**B. Understanding the Nature of the Property Right to be Free of Inundation**

In a setting such as that of the *AG&FC* case, Arkansas law defines the property rights of the riparian land owner. The question of what rights, if any, are being taken by the Corps in that

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79 736 F.3d 1364, 1375, n. 4.

80 Under some conditions, the stored water might evaporate or percolate in sufficient quantity, and/or be diverted from the reservoir for agricultural or water supply purposes in sufficient quantity, so that releases above virgin flow are never required. Those cases, of course, would impose no damage to downstream parcels.

81 This aspect of the upstream-downstream line is discussed at greater length in the consideration of the average reciprocity of advantage precedents. See infra at QQQ.

82 See infra at QQQ.

83 This article will limit itself to a discussion of reasonable use riparianism as the state water law governing the right to be free of inundation. Not only is that the dominant water law of the areas where most flood control dams operate, even prior appropriation states borrow reasonable use riparianism principles to govern some aspects of riparian ownership other than the right to divert and appropriate the water, such as the correlative rights of co-riparians to make recreational use of the water surface. See, e.g., Snively v. Jaber, 48 Wash. 815, 296 P.2d 1015 (1956) (recreational overuse as unreasonable).
case, therefore, begins with a consideration of those state law property rights, the point from which diminution of value or right to be free of invasion are measured. The United States Supreme Court has stated, “the Constitution protects rather than creates property interests, the existence of a property interest is determined by reference to ‘existing rules or understandings that stem from an independent source such as state law.’” 84 A very pointed example of this principle is the Court’s unanimity on that issue in Stop the Beach Renourishment v. Florida Department of Environmental Protection. 85 In that case the entire Court agreed that, under Florida property law, the petitioners lacked the rights they claimed were taken by implementation of the beach renourishment law. As a result there could be no taking of property.

In the AG&FC litigation, the issue of Arkansas property rights is conspicuously absent. The government did not raise it and, prior to the case reaching the Supreme Court, neither the Court of Federal Claims 86 nor the Federal Circuit 87 cited a single Arkansas case. When the litigation reached the high court, Justice Ginsburg’s opinion noted:

But Arkansas law was not examined by the Federal Circuit, and therefore is not properly pursued in this Court. Whether arguments for an upstream/downstream distinction and on the relevance of Arkansas law have been preserved and, if so, whether they have merit, are questions appropriately addressed to the Court of Appeals on remand. 88

On remand, the Federal Circuit ruled that any dispute regarding the content of the AG&FC property right under state law had not been preserved, and likewise ruled that, as a consequence, the role of AG&FC’s investment backed expectations could not be raised. 89 In that way, the failure of the Corps to contest the scope of AG&FC’s property rights had two impacts—consideration of the basic nature of the right claimed to be violated was foregone and application of one or more key aspect of the usual takings test that the Court laid out as the framework for all takings challenges 90 was precluded.

In regard to the Donaldson Management Area, getting a precise measure of state law property rights is made difficult by Arkansas’ longstanding adherence to reasonable use riparianism as its principal water law and as the measure of riparian rights. 91 The rights created


87 Arkansas Game & Fish Comm’n v. United States, 637 F.3d 1366 (Fed. Cir. 2011).


89 See, Arkansas Game & Fish Comm’n v. U.S., 736 F.3d 1364, 1375 (Fed. Cir. 2013).


are correlative rights to a common pool resource, and what is a reasonable use of one parcel may have an impact on other riparian parcels and their potential uses. The leading Arkansas case is Harris v. Brooks. The opinion in that case, which involved an irrigation depletion in competition with a co-riparian’s in situ recreational use of the waterbody that relied on maintenance of an appropriate water level, adopts several ideas presented by the Restatement (First) of Torts §852. Having particular relevance to the AG&FC case, the Arkansas Supreme Court quotes a passage from the Restatement:

> It is axiomatic in the law that individuals in society must put up with a reasonable amount of annoyance and inconvenience resulting from the otherwise lawful activities of their neighbors in the use of their land. Hence it is only when one riparian proprietor’s use of the water is unreasonable that another who is harmed by it can complain, even though the harm is intentional. Substantial intentional harm to another cannot be justified as reasonable unless the legal merit or utility of the activity which produces it outweighs the legal seriousness or gravity of the harm.

The actions of the Corps in the AG&FC case, if sufficiently proven to have caused the increased inundation, which in turn destroyed the hardwoods as claimed by AG&FC, exceed mere annoyance or inconvenience. Equally, however, Arkansas law requires that even if Respondent’s actions are properly characterized as intentional, and the impact is substantial, those actions may still be considered legally reasonable based on “legal merit or utility.” (Emphasis added). The broader pattern of flood control has immense utility. Thus, even though the Corps’ intentionally changed its pattern of releases, and even if the Corps had known (which they initially did not) that harm would inure to AG&FC, a downstream co-riparian, the law of riparianism considers the whole picture including the utility of the action taken. Under Arkansas principles, the Clearwater Dam in this case is protecting vast tracts of land, including homes and businesses from flooding. That is an act having great utility. The Corps’ operation of a flood control dam, even if not the most typical riparian use, is a riparian use nonetheless. Recalling that the property rights of all co-riparians are correlative, the myriad of benefits attributable to the dam’s flood control operations are germane to determining the riparian rights of others in the basin.

Only a small number of Arkansas cases have decided issues of riparian rights, but a comparatively recent case, South Flag Lake, Inc. v. Gordon, addresses the situation in which use on one parcel was held to be reasonable in spite of causing a considerable areal amount of continuing inundation of the lands of a co-riparian. Although the claimed injury of the inundated co-riparian in South Flag Lake is not as dramatic as the AG&FC claims of forest injury and did

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92 Id.
93 Id. at 135 citing Restatement (First) of Torts § 852 cmt. c (1939).
not involve major economic value, that case and other Arkansas cases\footnote{Those cases include QQQ. Those cases are recounted in greater detail in the Amicus Brief filed by Professors of Law Teaching in the Property Law and Water Rights Fields in Arkansas Game & Fish Commission v. United States, 568 U.S. ___, 133 S.Ct 511 (2012). The author of this Article was counsel for that Amicus.} establish there is no \textit{per se} rule that would support AG&FC in a claim that Arkansas law gives them an absolute property right to be free of alterations of watercourse conditions, including those that increase inundation of their parcel. The public welfare benefits provided by the dam militate in favor of a finding that the Corps’ flood control use is of sufficient utility to be reasonable, even in the face of a substantial interference with the parcel of a co-riparian. Indeed, this might be exactly the type of case in which the doctrine of \textit{damnum absque injuria}--damage without legal injury—\textemdash is properly applied.\footnote{See, J. Nelson Happy, \textit{Damnum Absque Injuria: When Private Property May be Damaged Without compensation in Missouri}, 36 Mo. L. Rev. 453 (1971).} Under that analysis it is likely that the taking claim of AG&FC in this case would fail because there was no invasion of a property right under Arkansas law. Even if Arkansas law deemed the Corps’ actions to invade the riparian rights of AG&FC, the case would still have to move to the second stage of being found to be a regulatory taking of property under the 5\textsuperscript{th} Amendment.\footnote{As considered more fully later, it is likely that this would not be a regulatory taking. See infra at QQQ\[x-ref to Penn Central diminution & whole parcel aspects].}

As litigated, one of the claims of AG&FC was that the inundation of its lands caused by the changed pattern of dam operations should be treated as falling under the “physical invasion” line of takings cases,\footnote{QQQ[cite to AG&FC brief in 1st Fed Cir iteration].} the most prominent of which is Loretto v. Teleprompter Manhattan CATV Corp.\footnote{458 U.S. 419 (1982).} It is vital to note that \textit{Loretto} involved a permanent physical invasion of the landowner’s property and on that basis alone constituted a taking of property. The lack of permanence of this series of inundations in AG&FC had been turned into a bright line “no taking” argument by the government, and became the principal ground for reversal of the Court of Federal Claims by the Federal Circuit in the original appeal.\footnote{QQQ[pin cite to original appeal]} In the Supreme Court that bright line reading of the importance of permanence was expressly disavowed. Thus, what the Court held was only that temporary physical invasions \textit{may} be takings, leaving open whether they are takings to be decided on a case-by-case basis. That determination was to be made on remand, with the Court adding guidance by indicating that the duration of the intrusion was a relevant consideration in determining the extent of the detriment suffered by the claimant when making the taking decision.\footnote{QQQ[pin cite to SCt opinion.]} In trying to assess the importance of the duration and nature of the physical invasion in the taking calculus, state property law again is relevant because that law sets the expectations of the

\begin{itemize}
\item \footnote{QQQ[cite to AG&FC brief in 1st Fed Cir iteration].} 458 U.S. 419 (1982).
\item \footnote{QQQ[pin cite to original appeal]} QQQ[pin cite to SCt opinion.]
\end{itemize}
landowner. Here, too, Arkansas’ reasonable use riparianism cases reject the possibility that a riparian can have a reasonable expectation that the riparian fee is an inviolate area immune from any physical encroachment or intrusion. This is true not only when the “invasion” is by water inundating portions of the parcel as in South Flag, but also when the invasion involves use of the surface of waters overlying a riparian’s property. Thus, under Arkansas law, the fact that the inundation can be characterized as a temporary physical invasion does not imply that the invasionary nature is the key factor in the broader takings analysis. If anything, Arkansas’ law of riparian rights suggests that owners of riparian tracts should have little expectation that their riparian fee is an exclusive domain.

The takings test pointed to by the Supreme Court also assesses the extent of the deprivation under the totality of circumstances. In both Harris v. Brooks and in cases involving use of waters overlying privately owned beds, the public interest weighs heavily as a limitation on claimed rights of riparian proprietors in Arkansas. Here, while AG&FC is a public entity, the forest use for which it is seeking compensation as a taking is proprietary in nature and is in competition with the public use of flood control. As noted above, the Corps, even if it was negligent in its disregard or miscalculation of the potential and actual downstream effects its dam operations might cause, the Corps was acting in pursuance of the highly important public interest of flood control which makes it less likely that AG&FC, as an Arkansas riparian proprietor, can claim a reasonable expectation to be wholly free of physical invasion of its parcel.

C. Applying the Takings Test of Penn Central to AG&FC and Similar Downstream Inundation Cases

Penn Central Transportation Company v. City of New York is generally considered the leading case for framing the analysis in alleged regulatory takings cases. Penn Central offers guidance about how to determine when a regulation is a valid exercise of the police power and when it steps over the murky divide and “goes too far” and becomes a taking of property. The signal contribution of Penn Central is its three-part test: (1) the loss must be substantial and the whole parcel, not merely the affected portion, is the baseline to consider how much has been

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102 Water law on this point is complex. See generally, BARTON THOMPSON, JR., JOHN LESHY, & ROBERT ABRAMS, LEGAL CONTROL OF WATER RESOURCES, 74-85 (rights of co-riparians to use the entire surface of the waterbody), 613-633 (state law navigability as determining the right of the general public to use waters superjacent to privately owned beds of lakes and streams) (5th ed. 2013). On this latter point, Arkansas is one of the leading states that has moved to open formerly private waters to public use by expanding its navigability concept, which state law precedents have long deemed to be a concept that considers the public’s interest in use of the common pool resource. See State v. McIlroy, 268 Ark. 227, 595 S.W.2d 659 (1980); Barbora v. Boyle, 119 Ark. 377, 178 S.W. 378 (1915).

103 The Federal Circuit on remand appears to conclude that the Corps was not acting in the public interest in this case because the impetus and one of the results of the changed operation was to benefit farming interests located closer to the dam. See, Arkansas Game & Fish Comm’n v. U.S., 736 F.3d 1364, 1375, n. 4 (Fed. Cir. 2013). That assessment totally ignores the fact that the historic pattern of releases had imposed losses, albeit less dramatic and possibly less economically important, on the farming parcels that could not be cultivated due to the former pattern of releases. Also, see infra QQQ.


105 “The general rule at least is that while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking.” Pennsylvania Coal Co. v. Mahon, 260 U.S. 393, 415 (1922).
taken, (2) the inquiry must account only for the landowner’s justifiable investment backed expectations, and (3) the character of the governmental interest has a place in the determination. In AG&FC on remand, the facts considered in making some of these inquiries were deemed to have been waived or otherwise limited by the litigation choices of the Corps, but if the case were litigated on a clean slate, AG&FC and claimants in similar circumstances would have a difficult time satisfying any of the three the *Penn Central* tests.

1. Economic Impact on the Owner Using the Parcel as a Whole Baseline

Under the first factor, the Donaldson Management Area still possesses great value to AG&FC and the citizens of Arkansas. The parcel-as-a-whole analysis would suggest that there is substantial value remaining and that the parcel is still able to serve its intended uses as a refuge, reserve, and public recreation area. In other temporary inundation cases, even severe short-term impacts might leave the parcel with many valuable uses remaining, including uses of the remainder of the parcel while a portion of the parcel is adversely affected.

2. Interference with Investment Backed Expectations

There does not seem to be a justifiable expectation that flooding will not impact the Donaldson Management Area, which is low-lying and is subject to greater or lesser inundation in almost every year. That lack of justifiable expectation may be offset by the recurring nature of the Corps operations, which gives the interference continuing character that no longer corresponds to the expectation of variable flooding that might cause harm. The expectation of having no alterations in inundations caused by the actions of co-riparians is undercut by the state law of reasonable use riparianism: all riparian lands are burdened by the correlative reasonable uses of co-riparians. In this regard the Arkansas’ precedents directly affirm the propriety in some cases of actions of co-riparians that alter patterns of inundation of others’ parcels. Similarly, in AG&FC there is not purposeful investment in the forest resource for its ongoing production of timber—the refuge was created for conservation and recreation purposes, an issue deemed to have been waived in the case. Looking at more general cases where the lowest-lying portions of a riparian parcel immediately adjoining a flood prone stream are inundated, it would seem to be

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107 As already described, supra p. 1 and note 6, on remand in AG&FC the Federal Circuit found that the United States had not preserved issues key aspects of the *Penn Central* test and did not even cite *Penn Central* in its opinion. Had those issues been preserved, all three elements of the *Penn Central* test point to a no taking result.

108 Another factor affecting loss calculation in *Penn Central* was the grant to the landowner of transferrable development rights which partially offset the loss. See 438 U.S. at 136. In AG&FC and similar cases even the “losers” on the downstream side of a flood control dam are obtaining a substantial benefit from the increases to safety and reduction of calamitous risks that the dam is providing.

109 That same element is picked up by Justice Ginsburg’s opinion for the Court in which the duration of the interference with the property is relevant. Ark. Game & Fish Com’n v. United States, 133 S.Ct. at 522 (2012). A finding of a permanent physical invasion would suggest a *per se* taking under Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419 (1982).

110 See supra at QQQ.
imprudent and unjustified to invest heavily in the continued freedom of those areas from inundation.

3. Character of the Governmental Action

The character of the governmental interest, the third *Penn Central* factor, has not been the subject of extensive elaboration by the Court. The most direct effort to explore the content of that factor appears in Justice O’Connor’s concurring opinion in *Palazzolo v. Rhode Island*. After describing *Penn Central* as the “polestar” of takings jurisprudence and borrowing phrases from that case she stated:

We have eschewed “any ‘set formula’ for determining when ‘justice and fairness’ require that economic injuries caused by public action be compensated by the government, rather than remain disproportionately concentrated on a few persons.” The outcome instead “depends largely upon the particular circumstances [in that] case.” We have “identified several factors that have particular significance” in these “essentially ad hoc, factual inquiries.” Two such factors are “[t]he economic impact of the regulation on the claimant and, particularly, the extent to which the regulation has interfered with distinct investment-backed expectations.” Another is “the character of the governmental action.” The purposes served, as well as the effects produced, by a particular regulation inform the takings analysis. (Emphasis added.)

In virtually every case the building and subsequent operation of a flood control dam is for a fundamentally important and uniquely public purpose, the protection of all interests in the flood plain below the dam. Thus, in downstream flooding cases, the character of the government action weighs heavily in favor of the government in the *ad hoc* takings balance. Like several other areas of constitutional adjudication, takings law applies a sliding scale analysis which, when applied to the Corps’ actions in service of flood control, accord the Corps far greater leeway before a taking can be found. Again, applied to the Corps’ actions here, which are in service of flood control which is of paramount importance to public safety, far greater leeway is accorded before a taking can be found.

D. Nuisance Prevention Cases

The Supreme Court has long recognized that governmental regulations that proscribe activities that are nuisances or that are illegal are not takings of property. There is an underlying

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111 533 U.S. 606, 632 (2001) (O’Connor, J., concurring)

112 Id. at 633-64.

113 As noted supra at QQQ, the same factor is important in the state law determination of property rights and further limits the reasonable expectations of all owners below a flood control dam to be free of dam-operation-caused variations in the natural flow of the watercourse. Similarly, the same factor, the prevention of great public harm is an independent consideration that brings AG&FC and cases like it into the nuisance prevention line of cases. See infra at QQQ.
character to such actions—they protect the public at large from potential harms to public welfare, including protections of morals, health and safety, and even protecting local economies from disruption. So, for example, enforcement of a law requiring the closing of a distillery during prohibition,\textsuperscript{114} or a law barring operation of brick mill,\textsuperscript{115} or continued quarrying in residential area,\textsuperscript{116} all withstood constitutional challenge despite near total losses of value to the regulated owners. The case from this line that is most like the destruction of the AG&FC hardwood forest is Miller v. Schoene.\textsuperscript{117} In Miller owners of cedar trees afflicted with cedar rust, a disease that does not adversely affect the cedars, were required by state law to destroy the diseased trees at their own expense to prevent infection of nearby apple orchards, which were seriously harmed by the disease. The Court in Miller unanimously upheld protection of public welfare against a takings challenge. That holding placed a direct loss on the affected cedar tree owners, who were required to act wholly within their own property to cut and remove at their own expense their cedar trees for the welfare of broader community and the economic well-being of a discrete class of other citizens, those in the apple growing industry.

1. Protecting the Public by Preventing Greater Harm via Triage

There is a close parallel to Miller in the AG&FC setting. At the time the regulatory action that is later challenged as a taking occurs, there are indirectly competing users of an intertwined resource complex and government may, without taking property, regulate the manner in which the uses are to be accommodated.\textsuperscript{118} In Miller the regulator chose to protect the apple industry against harm at the expense of the cedar tree owners; in AG&FC the Corps as regulator of dam operations chose to protect the low-lying farmers at the expense of the forest. Both the Virginia legislature and the Corps were faced with an unavoidable decision—even making no change in current obligations of cedar tree owners or the pattern of operations decides the issue in favor of one set of private uses and against the other. For the Virginia legislature it was a choice between cedar trees and apples. The Corps also faced a choice because it must release the impounded water from a previous high flow period in order to empty the reservoir to be able to store water that would pose the next threat of a major regional flood event.

The Corps is, in essence, engaged in a form of triage that attempts to limit the adverse flooding consequences in the basin. This is no different than the Virginia legislature when it forced the removal of the cedar trees to protect the apple industry. The impetus for building the Clearwater Dam was precisely that—mitigating flood risks that would occur in the absence of building the Clearwater Dam in the first place. Once built, the Corps in making releases is

\begin{footnotes}
\item[117] 276 U.S. 272 (1928).
\end{footnotes}
choosing among operational patterns to maximize the net flood risk reduction benefits. Necessarily, that choice, as in AG&FC, will provide some with greater and others with lesser benefits and burdens. In AG&FC the Corps was doing just that, trying to provide additional flood protection to the farmers in Missouri just below the dam by altering its release patterns. No doubt, the Corps may have wrongly assessed the consequences of its change in dam operations and, by reducing release-induced flooding for the farmers, increased release-induced flooding for the forest. What that action presents is a question of poor decision making about how to manage excess water, not a taking of property.

The Miller holding is not in any way qualified or limited to cases in which the governmental choice of course of action is completely correct. As to the Corps’ allegedly poor predictive performance, under the Miller rationale, takings is not the remedy. Unfortunately for AG&FC and others harmed by Corps possible negligence\(^\text{119}\) in carrying out the triage, tort remedies are unavailable because Congress has granted the Corps immunity. The Miller Court would have rejected the takings claim even if there had been evidence that the state forestry official had been wrong in believing that destroying the cedar trees was the best way to protect the apple orchards, or even if the forester had been wrong that destroying the cedar trees would be effective at preventing the harm to the apple orchards. The nuisance prevention and quarantine/triage line of defense to claims of a taking is that broad.

The Supreme Court’s well-known decision in Lucas v. South Carolina Coastal Council\(^\text{120}\) strongly supports that view, even if the destruction of the hardwoods could be considered a Lucas “wipeout.”\(^\text{121}\) Justice Scalia’s plurality opinion states:

> A law or decree with such an effect [i.e., a law that imposes a “wipeout”] must, in other words, do no more than duplicate the result that could have been achieved in the courts—by adjacent landowners (or other uniquely affected persons) under the State’s law of private nuisance, or by the State under its complementary power to abate nuisances that affect the public generally, or otherwise.\(^\text{122}\)

While some might argue that statement assists AG&FC, because maintaining the Donaldson Management Area is surely itself a commendable public-benefitting use, the passage just quoted from Lucas concludes with a footnote that states:

\(^{119}\) Assessing whether the Corps was negligent is not the objective here. What is factually established is that the Corps eventually agreed that its actions were a substantial causative factor (though not the only one) that resulted in the loss of the timber. Importantly, whether negligence is involved or not is immaterial to the takings issue. That the remedy available to AG&FC must sound in tort is highly relevant inasmuch as Congress has closed off that avenue.

\(^{120}\) 505 U.S. 1003 (1992).

\(^{121}\) Under the “parcel as a whole” calculus relied upon in Penn Central and other cases, the loss of the hardwoods here is not a wipeout. See infra p. 8.

\(^{122}\) 505 U.S. at 1029 (footnote omitted).
The principal “otherwise” that we have in mind is litigation absolving the State (or private parties) of liability for the destruction of “real and personal property, in cases of actual necessity, to prevent the spreading of a fire” or to forestall other grave threats to the lives and property of others. (Emphasis added.)

In relation to the AG&FC case, the worst that can be said of the Corps actions that are alleged to have inflicted the harm is that the change in the release pattern was ill-chosen and not necessary. The purpose being served, active engagement in the management of water collected and stored to prevent flooding, insulates the Corps from takings liability. The claim of a taking cannot be strengthened by arguing that the release of water to bestow a benefit on the farmers is separate from the flood control effort and therefore should not be covered by the nuisance prevention precedents. As is patently clear, the water stored behind Clearwater Dam to prevent or limit flooding downstream must eventually be released lest the dam have no storage capacity available for the next spring high water season, or a for a summer or fall extreme rainfall event.

The triage metaphor makes the point that no takings liability should attach to flood control operations quite clear. The purpose being served by the Corps’ releases, active engagement in public harm prevention, is a form of triage that takes place on two levels. The first level of triage inflicts a lesser harm (small inundations caused by the releases) to ensure that the storage is there for a potentially major flood event. The second level of triage tries to make those releases in a way that causes a minimum of harm. Getting it wrong on the second level is not a taking. At worst it reflects a negligent calculation of effects that may be tortious in nature, but it is not compensable as a taking. To use Justice Scalia’s words, the releases, which inevitably must be made in one pattern or another, are being made “to forestall [a] grave threat[s] to the lives and property of others.”

2. Average Reciprocity of Advantage Cases and the Harm-Benefit Distinction

Although it is has not been a prominent aspect of contemporary takings law or takings scholarship, historically the Supreme Court has espoused, and has never repudiated, a doctrine
that there is no taking of property when a landowner suffering a loss through operation of a government project also is a member of the class that benefits from the project. The doctrine is most famously mentioned in 1922 as part of Justice Holmes’ *Pennsylvania Coal* opinion, but its content and application primarily can be traced to a small series of cases cited by Justice Holmes in support of his 1922 opinion in Jackman v. Rosenbaum Co. in which he stated:

In the State Court the judgment was justified by reference to the power of the State to impose burdens upon property or to cut down its value in various ways without compensation, as a branch of what is called the police power. The exercise of this has been held warranted in some cases by what we may call the average reciprocity of advantage, although the advantages may not be equal in the particular case.

*Jackman* rejected a takings challenge by the owner of an existing structure to a state statute authorizing construction using a party wall so that urban properties could be developed with no intervening space. The three earlier Supreme Court decisions deemed by Holmes as having established the doctrine were quite varied factually. The first involved a drainage district within which all parcels were subject to a considerable tax burden to pay for a program that would enhance the value of all parcels. The second involved an irrigation district in which all parcels, including those not in need of the district’s facilities were subject to the tax. The third involved a deposits guarantee system funded by taxing all state banks’ deposits challenged by a solvent bank. The common element in those cases and in *Jackman* as well is that the claimants seeking a takings remedy opposed the program and its application and were denied relief because they were recipients of the benefit of the program.

Turning to the case of damage done by downstream releases of stored water by a flood control dam, the applicability of the average reciprocity of advantage doctrine is straightforward. All of the parcels are greatly benefitted by the first level of triage, the presence of the dam and its operations prevent or mitigate disastrous flooding. Even at the second level of triage, choosing a pattern of releases of the stored potential flood waters, the dam operator is still within the bounds of the average reciprocity of advantage doctrine. Assuming the dam operator is making a good

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Although most government regulations that confer a benefit are compensable takings, the average reciprocity of advantage rule identifies a critical subset of government actions that, although they convey a private or mixed public/private benefit, are nonetheless valid police power actions. Id. at 1489.

128 Id. at 1489-1524.
131 Id.
faith effort to maximize benefits and limit losses, there is benefit to the entire group that need not be distributed identically and that may be burdensome to and opposed by a subset of the affected group.

The average reciprocity of advantage argument was not fully considered in the AG&FC litigation. The Corps, belatedly and at best obliquely tried to raise this line of argument when the case was on remand from the Supreme Court. The Corps then, for the first time, urged that in regard to flood control dams there is a distinct and legally significant difference between inundating parcels upstream of the dam and those downstream of the dam. Apart from being untimely, that suggestion hardly pinpoints the average reciprocity of advantage argument that would give it credence in defending against AG&FC’s taking claim.

As a counterpoint to the average reciprocity of advantage doctrine that limits the possibility of takings, the harm-benefit distinction most clearly comes into play when a claimant is met with the nuisance prevention “defense” to the takings claim, and tries to avoid that defense by arguing that the government action is one that inflicts the harm in order to bestow a benefit, and not an action that prevents harm.

Simply put, the harm/benefit test states that a regulation intended to prevent a public harm is a valid exercise of the police power (for which no compensation is required), while a regulation intended to confer a public benefit is potentially a regulatory taking (for which compensation is constitutionally mandated).135

The harm-benefit distinction was suggested by the facts in the AG&FC litigation because the triggering event for the Corps’ action was the request by the farmers for a change in dam operations that would provide them with a longer growing season. Eventually, on remand, the Corps apparently, and quite obliquely, tried to suggest the nuisance prevention and average reciprocity of advantage lines of argument by urging an upstream-downstream distinction as a reason why no taking had occurred. The Federal Circuit summarily rejected the argument, particularly as the court considered its application to the case at bar. In doing so the Federal Circuit appeared to accept the applicability of the harm/benefit test to the case:

The government also suggests that a downstream property owner's interest in not being flooded by a flood control project is different from an upstream owner's interest, because property downstream from a dam is not occupied by the project but is the intended beneficiary of the project, which is designed to reduce flooding impacts. It may often be the case that a downstream property owner is the beneficiary of a flood control project. That is not true, however, when the project results in substantially increased flooding of one downstream owner's property due to efforts to benefit other downstream properties,
such as the agricultural lands that were the intended beneficiaries of the deviations at issue in this case.\(^\text{136}\)

Three aspects of the Federal Circuit’s response merit comment because of the likelihood that the decision will be misapplied in the future. The upstream-downstream distinction suggested by the Corps is relevant. Not only does it demarcate the principal zone of intentionality that requires condemnation to locate the dam footprint and upstream reservoir, it also is the dividing line separating the area in which public harm prevention is manifest and will defeat a takings claim. Secondly, the response of the Federal Circuit incorrectly applies the harm-benefit distinction by assessing this case as a benefit-only case because of the favorable treatment of the farmers, while ignoring the broad harm prevention provided to all downstream landowners. Taking that point a step further, even though the Corps’ action in AG&FC was taken in hopes of providing a benefit to the farmers, the “benefit” being provided was in fact an effort to prevent or reduce a long-imposed alternative harm suffered by those farmers due to the prior pattern of releases. More generally, all triage cases are ones in which the choice facing the actor is to benefit one by limiting their harm before attending to the harm likely to be suffered by the other. Thus, in the context of obligatory releases of stored potential flood water, the harm-benefit distinction should be of no avail in the effort to resuscitate a takings claim against the nuisance prevention line of cases.

The broad formulation of the Federal Circuit that uncritically treats the case as a benefit bestowal case which is a taking for those who suffer substantial losses has a final important flaw, overbreadth that will invite an avalanche of litigation. As written, the Federal Circuit’s remand opinion appears to allow any downstream “loser” suffering “substantially increased flooding” to state a prima facie case of compensable taking on that basis alone.\(^\text{137}\) The floodgates of litigation argument, like any “parade of horribles” argument, should not be allowed to detract attention from the legal merits and policies of the area. In this setting, avoiding a welter of takings litigation, almost all of which should fail on the merits, acts in furtherance of the policies that are in play when government is acting to protect the citizenry and promote the general welfare. The Corps is acting pursuant to congressional instruction to operate the dam for flood control purposes, exercising its discretion regarding how best to accomplish that goal. In that setting the policy bias is in favor of allowing the governmental official freedom to operate. A similar policy animates granting government officials’ qualified immunity from personal liability for violating an individual’s constitutional rights when that official’s actions do not violate clearly established law.\(^\text{138}\) In this setting Congress has gone a step further and given blanket tort immunity to federal

\(^{136}\) 736 F.3d 1364, 1375, n. 4.


flood control operations,\textsuperscript{139} and it would be odd indeed to allow a lowered takings threshold to force the federal official to litigate every incidental loss.

Taken together, the cavalier rejection of the issues raised by an upstream-downstream distinction renders the standard applied on remand by the Federal Circuit troubling and ripe for abuse. The court’s approach appears to reduce these cases from a full “takings vel non inquiry” to instead require little more than proof of a causally linked substantial losses as the basis for finding a taking. Results that would follow upon that line of analysis are tantamount to requiring the government to serve as an involuntary insurer of all such substantial losses. This proves too much, too easily\textsuperscript{140} and violates the standards set down by the Supreme Court both as to the tests to apply for temporary inundations and in regard to the tort/taking distinction.

**III. Fairness-Based Compensation for Disproportionate Burdens Without Resorting to Takings Law**

**A. Reasons in Policy to Pay Compensation**

This article has taken a sympathetic view of the plight of the AG&FC in its litigation while steadfastly arguing that a taking of property did not occur. The avoidable loss of a bottomland hardwood forest due to the Corps’ apparent unresponsiveness and possibly flawed analysis is an ecological tragedy that should have been averted. The result is made worse by the fact that the impetus for the change seems to have been of little societal benefit or importance. The triggering event was a self-interested request from farmers seeking to obtain a marginal benefit in the productivity of their lands. That should not obscure the fact that even in cases imposing significant and palpably unfair losses consequent upon the inundation of lowlands of downstream owners, such as AG&FC and others who will be harmed in the future, such losses arise from releases of stored potential flood waters the Corps must be given a broad range of discretion to manage flood control operations without requiring compensation. This is both legally and practically the proper result.

Moving away from its specific facts, what the AG&FC situation illustrates at a social engineering level is the conundrum of what to do when protecting one set of lands from flooding necessarily involves burdening other lands with a less advantageous result than could have been achieved with a different floodwater management strategy. As adverted to earlier, with the increasing frequency of extreme weather events, the Corps and other dam operators are ever more likely to have to undertake management strategies that are in the nature of two-level triage rather than universal protection. The first level of triage involves capturing the potentially destructive flows and impounding them for the benefit of all in the downstream flood plain. The second level of triage relates to determining how best to release the stored flood waters. At this

\textsuperscript{139} See 33 U.S.C. § 702c, originally enacted May 15, 1928, c. 569, § 3, 45 Stat. 535. The concern with a floodgates of litigation is expressly noted in the legislative history. See 69 Cong. Rec. 6641 (1928).

\textsuperscript{140} See supra at QQQ [page 20 of this draft middle of the page]
second level, the optimal triage policy will not always be evident due to the complexities of modeling basin-wide results of particular management decisions in a system as dynamic as a storm-affected basin having too much water and too little reservoir capacity to hold it all back for gradual and totally “safe” release. It seems unfair to force some of the downstream owners, all of whom are equally in harm’s way, to bear disproportionate losses when the flood control manager decides on a release pattern. The sense of unfairness and the disproportion of the loss are no less even when one recognizes that the flood control manager didn’t contribute to the natural events that produced the water and has no choice but to act and release the stored water.

1. Fairness as the Avoidance of Demoralization Losses

What remains is to bring fairness to the adversely affected landowners back into the equation. The need to compensate beyond what is constitutionally required is advocated in one of the iconic articles in the takings literature. Professor Frank Michelman, who also subscribed strongly to the breadth of the nuisance prevention line of cases as negating takings claims, argued that there should be voluntary compensation for “demoralizing” losses that are not compensable as takings. Perhaps AG&FC is such a case, i.e., an instance where compensation should be paid for policy reasons. The more general point is that these flood control settings hold the potential for very uneven degrees of loss that was avoidable, or could have been distributed differently under an alternative flood control strategy. Unlike some other situations, flood control efforts frequently will present a means for fairly funding and implementing a non-constitutional system for providing compensation to adversely affected landowners suffering significant and disproportionate losses.

Case-specific solutions are at times available. The most obvious of these are executive disaster declarations that permit specialized aid to be distributed to the victims of disasters, in this case floods. Those do not seem apposite in the genre of cases like AG&FC because the harm, though substantial is neither widespread nor of regional significance. Special congressional legislation can at times be obtained. That fits the AG&FC circumstances quite nicely, but such legislation is exceptional and not a systemic remedy.

2. Partial Revocation of Tort Immunity to Ensure Reasoned Decisions

A first-level, more systemic corrective is to narrow the scope of governmental tort immunity. To a degree, the courts have already begun to do this, by stepping in and policing the

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141 See generally, Frank I. Michelman, Property, Utility, and Fairness: Comments on the Ethical Foundations of “Just Compensation” Law, 80 Harv. L. Rev. 1165 (1967) (compensation seldom constitutionally required but fairness to adversely affected landowners calls for compensation to avoid substantial demoralization losses). Professor Joseph L. Sax also has written about the role of fairness in takings jurisprudence. See QQQ[get cite to the recent article about Day if it fits]


line between acts of the federal dam operator in furtherance of flood control and unrelated activities—the immunity extends only to the former.\textsuperscript{144} None of the arguments adduced in this Article in opposition to takings liability have any force when the governmental action is not in furtherance of flood control.

A second-level adjustment of the immunity doctrine is to permit tort liability when the flood control dam operator is guilty of gross negligence. Even in the service of flood control there is no justification nor any need to immunize losses caused due to the gross negligence of the dam operator. An agency entrusted with public safety from possible floods should never be allowed to act heedlessly and in wanton and willful disregard for the safety of those whom it is being tasked to protect. Congress currently is considering that exact form of legislation.\textsuperscript{145} There is no chilling effect on management decisions by holding dam operators to what will be, in effect, a rational basis under the circumstances type of review. The fact that there may be a gray area at the borderline between negligence and gross negligence should spur greater planning and public participation in federal flood water management operations. Like the first-level incursion on tort immunity, however, revoking immunity for gross negligence is a salutary development and worth the investment in improved decision making. The change may even contribute to the perceived fairness of the release plan chosen by the dam manager, but it remains incomplete because it still fails to reach cases where either a reasonable decision or flawed (but not reckless) decision about dam operations inflicts a substantial and disproportionate loss on a downstream landowner.

B. Cost Internalization Through Flood Control Districts

A broader method of providing compensation to “losers” needs to be found. Once the smaller losses are put to one side,\textsuperscript{146} other compensation options for serious flood-induced losses that could have been avoided by different dam operations choices are possible. Few are attractive. Commercial flood insurance is such an option, but it is costly and requires sufficient foresight and solvency on the part of landowners to make the purchase. Experience with federally subsidized flood insurance is to a degree politically unpopular, and even that subsidy does not result in universal coverage.

A more appealing remedial option is to establish flood control districts that create compensation funds that are available to be distributed to redress substantial flood losses. These districts would obtain funding by laying a small ad valorem tax on all parcels in the district. The compensation fund could be tapped according to criteria set by the district, presumably including


\textsuperscript{146} The text limits its discussion of compensation to losses that are substantial. Trivial losses should not be compensable under the doctrine of \textit{de minimis non curat lex}. Small losses may have to be borne by those on whom they fall due because the transaction costs that would attach to providing a remedy are too great in proportion to the loss they assuage.
a threshold in terms of severity of loss. Using a flood control district approach is essentially an insurance system that obtains universal participation of all potential victims, thereby spreading the cost coextensively with the risk. A flood control district operates less expensively than a commercial insurance option because there are not profits being extracted,\textsuperscript{147} the collection as a tax is very efficient, and there is universal participation which tends to lower rates overall. All members of the district share in the benefit—both the protection afforded by the dam’s operation and access to remedial payments from the fund for qualifying losses.

Using flood control districts to afford compensation for losses in the manner here advocated finds support in a portion of the law and economics literature that coined the term “givings.” Under that analysis a giving occurs anytime a government regulation or action bestows a benefit upon a private property owner. The regulation or action concurrently may impose a burden upon other private property owners. Thus, government regulations and actions that affect property often distribute benefits and burdens to achieve a goal. When viewed in the context of a 5th Amendment takings analysis, since the Constitution permits takings only for public use, any taking must confer some benefit on the public, which almost invariably produce private benefits that come in the form of a derivative giving. As a matter of economic principle, “Takings, when uncompensated, generate negative externalities; givings, when unaccounted for, generate positive externalities. From an economic standpoint, neither type of externality should remain outside the state’s calculus.\textsuperscript{148} Using Miller v. Schoene as an example, Abraham Bell and Gideon Parchomovsky suggest compensation should issue from those who receive the uninternalized benefit:

The "public use" requirement of the Takings Clause makes derivative givings likely companions of physical takings. In Miller v. Schoene, the state ordered the destruction of cedar trees on Miller’s lot in order to prevent the spread of a fungus to nearby apple tree lots. Miller suffered a physical taking - without compensation - while his neighbors received a derivative giving. However, the Court closed its eyes to the givings half of the picture and determined that, as a result of the public benefit, no compensable taking had taken place. A better result would have been similar to that of Boomer [v. Atlantic Cement Co.], absent the valuation problems: The apple tree farmers should have been charged for the benefit to their properties, and Miller should have received compensation.\textsuperscript{149}

\textsuperscript{147} Additional economies can be obtained by using alternative dispute resolution methods to process claims that are not settled on a mutually agreeable basis under the compensation rules that can be drawn to minimize the grounds for claims and disputes.

\textsuperscript{148} Abraham Bell & Gideon Parchomovsky, Givings, 111 Yale L.J. 547, 554 (2001). The accompanying footnote 30 credits the concept as follows: “See Harold Demsetz, Toward a Theory of Property Rights, 57 AM. ECON. REV. 347, 347-57 (1967) (arguing that property rights arise to effect internalization of externalities, both positive and negative).”

\textsuperscript{149} Abraham Bell & Gideon Parchomovsky, Givings, 111 Yale L.J. 547, 572 (2001).
Translating that suggestion as an appropriate outcome in Miller v. Schoene to the flood control context, utilizing flood control districts to provide compensation promotes internalization of both costs and benefits. Having compensation assuages substantial and disproportionate losses on a broad scale. Even if some losses remain in place based on thresholds of harm, the largest and most disproportionate losses will be reduced or eliminated. From a broader public perspective, flood control district compensation internalizes the cost of compensation on the beneficiaries of the dam’s protection by reclaiming a portion of the “giving” that the dam provided in flood protection to all of the downstream landowners and that the dam operator provided to the “winners” in its choice of a pattern of releases of stored potential flood water. Taking the justification for taxing district residents a step further, in many basins the need for protection is related not only to the presence of those parties in a flood-prone area, the severity of flooding and the flood threat often is exacerbated by their activities that “harden” the flood plain or impede the natural drainage and flood absorption capacity of the basin. Thus, in the end, the cost of building the dam that includes purchasing reservoir storage space and the cost of managing the dam remain on the public as a whole and is funded by Congress or in accord with its legislated dictates. The other operations-imposed losses deserving of redress suffered by downstream landowners are compensated by those who received the giving.

Conclusion

The injuries caused in the service of flood control will continue to increase. Flood control has long been a vital governmental function and the desire for greater protection in an era of increased weather variability will only increase the pressure on the operators of those dams to operate them to minimize major harms. Public sentiment on this subject is similar to that of the average citizen in the previously mentioned garbage pick-up and disposal context—everyone wants the water impounded, but no one wants the water released in ways that disadvantage their downstream parcels. Congress, some 80 years ago, began putting in place the major physical engineering projects, including the Clearwater Dam, with the intent to have those dams constructed and operated to protect against, or at least mitigate, harms suffered by citizens as a result of major floods. Inevitably as the areas below those dams become more populated, or as

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150 The compensation formula could be less than 100% of the loss (akin to a co-pay), or have differing percentages of compensation as the total amount of the loss increased.

151 Moreover, to a degree, the need for flood control is in part a result of the choice of those having land in the district to locate in a flood-prone area. There frequently is a symbiotic relationship at work in these settings. Many activities pursued in the downstream areas might have been foregone but for the public subsidy provided by the dam’s presence and flood control protection.

152 “As more and more people inhabit the Earth, and as more development and urbanization occur, more of the natural landscape is replaced by impervious surfaces, such as roads, houses, parking lots, and buildings that reduce infiltration of water into the ground and accelerate runoff to ditches and streams. In addition to increasing imperviousness, removal of vegetation and soil, grading the land surface, and constructing drainage networks increase runoff volumes and shorten runoff time into streams from rainfall and snowmelt. As a result, the peak discharge, volume, and frequency of floods increase in nearby streams.” United States Geological Survey, The Water Cycle: Surface Runoff, http://ga.water.usgs.gov/edu/waterecyclerunoff.html. See also, Brian Clark Howard, Amid Drought, Explaining Colorado’s Extreme Floods, NAT. GEOGRAPHIC, Sept. 14, 2013, http://news.nationalgeographic.com/news/2013/09/130913-colorado-flood-boulder-climate-change-drought-fires/.
the drainage patterns change, or as the loss of stationarity alters the frequency and severity of flood events, it is imperative that flood control dam operators can act to maximize the protection accorded to the public at large by those dams. The choices for the management, including both impoundment and release of those potential flood waters, frequently will involve forms of triage that require choosing among harms that may be suffered by those downstream of the dam.

Congress has chosen to ensure the freedom of action of dam operators by granting immunity in tort cases. The Supreme Court has cabined that immunity in the sphere where it is needed, protecting federal dam operators from liability related to actions affecting flood risks. The Supreme Court and others have also recognized that tort immunity prompts parties adversely affected by water management decisions to seek remedies by claiming 5th Amendment takings of property. The Court specifically indicated that such cases must first cross a high foreseeability threshold that allows them to be considered under takings law, and not tort law, and even then requires those cases to satisfy all of usual regulatory takings tests to succeed. On several fronts, the eventual decision of the Federal Circuit in *AG&FC* finding a taking appears to violate those warnings and proscriptions, even after granting leeway for the litigation errors of the Corps. There can be little doubt that AG&FC suffered a disproportionate loss at the hands of a possibly flawed decision by the Corps. That loss under those circumstances bespeaks great unfairness, but not necessarily a taking of property by the government.

The aphorism, “Hard cases make bad law,” is at work here. It is unfair to leave the loss of the Donaldson Management Area hardwood forest resource solely on AG&FC. Even so, proper application of takings law, coupled with the Corps’ tort immunity in this case requires that compensation be denied. That unhappy result is not a warrant for improperly applying existing takings law to create an untenable precedent that makes federal dam operators virtual insurers of major downstream losses occasioned by their operational flood control decisions. The preferable path is to ensure fair treatment and compensation of the adversely affected landowners by creating flood control districts empowered to collect taxes from all beneficiaries of the dam, and use those funds to redress unfair and disproportionate losses incurred as a result of the flood control choices made by the dam operator.