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SUMMARY

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Flooding and Federal Projects: Exposures and Limits to Liability

Over the past century, the federal government has undertaken a number of civil works projects to prevent widespread flooding damage. Congress authorizes these flood control projects and generally delegates design and construction to federal agencies such as the U.S. Army Corps of Engineers or the Bureau of Reclamation. Despite these various projects, many regions have experienced flood events associated with trillions of dollars of damages. Hurricanes have proven costly near the coasts, and there have been major floods along inland rivers such as the Mississippi and Missouri.

This century has seen an increase in litigation over federal liability for flood damage. Some lawsuits allege government liability for damages based on the failure of levees and floodwalls designed and constructed by federal agencies. Other lawsuits claim damages resulting from intentional decisions to compromise infrastructure, such as by directing floodwaters away from population centers. Still others allege damages from flooding allegedly caused by federal infrastructure modifications directed by Congress.

This report examines federal liability for flood damage and analyzes the exposures and limits of that liability. It provides an overview of the legal basis for tort and takings claims as well as valid defenses that the government may assert, including the discretionary function defense under the Federal Tort Claims Act (FTCA), sovereign immunity under the Flood Control Act of 1928 (FCA), and the public necessity defense under the Fifth Amendment's takings clause.

The FCA and FTCA have historically shielded the government from much of the liability for flood-related claims. Under the FCA, the government cannot be sued for damages resulting from federal flood control projects or associated floodwaters. Under the FTCA, the federal government is exempt from liability for discretionary actions where the claim alleges that either negligent or intentional action by the U.S. government caused the harm.

This report considers the evolution of federal liability case law for flooding damages based on court decisions associated with Hurricane Katrina (2005), flooding on the Missouri River (2007-2014), flooding in the Mississippi River basin (2011), and Hurricane Harvey (2018). Since Hurricane Katrina, plaintiffs have been increasingly successful in bringing claims against the United States under the Fifth Amendment, claiming that flooding on their properties constituted takings without just compensation. Starting with the Supreme Court's 2012 ruling in *Arkansas Game & Fish Commission*, a series of flood-related takings decisions in the U.S. Court of Appeals for the Federal Circuit has resulted in considerable federal liability for temporarily or permanently taken private property in connection with federal flood control efforts.

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The federal government constructs and manages a variety of flood control structures. Floods can occur when natural conditions prove too extreme for flood control structures or those structures fail. In other instances, the government may make specific decisions that cause lands to flood.

This report examines the legal issues resulting from flood damage in both situations. It analyzes the general framework of liability claims and defenses for flood damage under both tort and takings law, followed by a discussion of key cases concerning federal liability. As described below, there has been an evolution toward increased exposure for takings claims for flood-related damages associated with federally authorized infrastructure. This evolution includes claims based on the failure of government-constructed or government-operated flood control systems as well as claims based on the government's intentional flooding of land.

Theories of Liability and Sources of Immunity

Sovereign Immunity

As a threshold issue, any suit against the federal government must overcome the doctrine of sovereign immunity. Sovereign immunity means that the government cannot be sued without its consent. Congress, however, may waive sovereign immunity and allow the federal government to be sued in specific circumstances.[1] The plaintiff bears the burden of proving that it has the right to sue the government.[2]

Claims against the government for flood-related damages typically rely on two statutes that allow the government to be sued. In the Federal Tort Claims Act (FTCA), Congress waived sovereign immunity for certain tort claims based on a "negligent or wrongful act or omission" of a federal employee.[3] In the Tucker Act, Congress authorized claims against the government for constitutional violations,[4] including violations of the Fifth Amendment's Takings Clause, which provides that private property cannot be taken for public use without just compensation.[5]

Tort Claims

A tort is a harmful act, other than breach of contract, for which relief may be obtained, usually in the form of damages.[6] A person harmed by a federal action may try to bring a claim under the FTCA. The FTCA authorizes claims for certain property damage, personal injury, or death caused by a government employee's "negligent or wrongful act or omission."[7] An FTCA negligence claim must show harm by a federal action or omission under circumstances where the United States, if a private person, would be liable in the law of that state.[8]

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[1] *See, e.g.*, Fed. Hous. Admin. v. Burr, 309 U.S. 242, 244 (1940) ("the United States cannot be sued without its consent"); Rothe Dev. Corp. v. U.S. Dep't of Def., 194 F.3d 622, 624 (5th Cir. 1999).

[2] *Dolan v. U.S. Postal Service*, 586 U.S. 481, 484 (2006).

[3] 28 U.S.C. § 1346(b)(1).

[4] 28 U.S.C. § 1491(a)(1).

[5] U.S. CONST. amend. V; *see also* Cong. Research Serv., *Overview of the Takings Clause*, CONSTITUTION ANNOTATED, https://constitution.congress.gov/browse/essay/amdt5-9-1/ALDE_00013280/ (last visited Jan. 23, 2023).

[6] *Tort*, BLACK'S LAW DICTIONARY (11th ed. 2019).

[7] 28 U.S.C. § 1346(b).

[8] *See* CRS Report R45732, *The Federal Tort Claims Act (FTCA): A Legal Overview*, coordinated by Jonathan M. Gaffney.

One common defense to an FTCA claim is the *discretionary function exception*.[9] A discretionary function is one where the person responsible for the governmental action exercises an element of judgment or choice in a decision based on public policy considerations.[10] A non-discretionary function—sometimes referred to as *directory* or *mandatory*—is one where a government agency or employee is implementing an action without the exercise of judgment or choice, such as following a rule or undertaking required maintenance pursuant to considerations not based on public policy.[11] The FTCA allows claims that a government employee was negligent in the performance (or non-performance) of mandatory functions, although state law may limit the government's FTCA liability if the court finds that the government is not solely responsible for the damages incurred.[12] The FTCA claim may be dismissed, however, if it is based on the performance (or non-performance) of a discretionary function, regardless of wrongdoing.[13] Where federal flood control measures include both mandatory and discretionary elements, the exception to FTCA liability applies to those parts of the government action that Congress did not specifically require.[14]

Courts have historically applied the discretionary function exception broadly for claims alleging negligent design or construction of flood control or irrigation projects and have been less inclined to apply the exception to maintenance decisions. For example, the discretionary function exception has been applied to bar liability for decisions based on the cost of construction materials or enhanced safety considerations, planning delays, and limiting design to withstand a certain level of storm despite awareness that more powerful storms are possible.[15] At times, courts have declined to apply the discretionary function exception to maintenance decisions, such as those based on technical considerations as opposed to public policy considerations.[16]

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[9] *Id.* at 18*;* 28 U.S.C. § 2680(a); United States v. Gaubert, 499 U.S. 315, 322–23 (1991) (applying discretionary function test for challenged conduct involving an element of judgment or choice based on public policy considerations); Nat'l Mfg. Co. v. United States, 210 F.2d 263 (8th Cir. 1954) (clarifying that the FTCA does not overrule or invalidate immunity conferred under the Flood Control Act of 1928, 33 US.C. § 702c).

[10] *Gaubert*, 499 U.S. at 322.

[11] CRS Report R45732, *supra* note 8, at 18; Directory Requirement & Mandatory, BLACK'S LAW DICTIONARY (11th ed. 2019).

[12] *See* CRS Report R45732, *supra* note 89. The court would follow state law when reviewing for negligence. For example, in a comparative fault state such as Louisiana, if multiple actors are negligent, they are each responsible only for that portion of the harm that they caused, even if all of the actors are not parties to the suit. *See* LA. CIV. CODE art. 2323. *See also* LA. REV. STAT. 9:2800.68.

[13] *See generally* CRS Report R45732, *supra* note 8, at 18.

[14] *See, e.g.*, Vaizburd v. United States, 90 F. Supp. 2d 210, 214–15 (E.D.N.Y. 2000). The court in *Vaizburd* applied the discretionary function exception to policy choices in the design, planning, and implementation of a project to reduce storm damage and protect shoreline, finding that even though the project as a whole was mandated by statute, the U.S. Army Corps of Engineers (USACE) had discretion in its implementation decisions. *Id.*

[15] *E.g.*, Dalehite v. United States, 346 U.S. 15, 35–36 (1953) (decisions in establishing plans, specifications, or schedules of operations); United States v. Ure, 225 F.2d 709, 712–13 (9th Cir. 1955) (decision based on cost of construction materials); Valley Cattle Co. v. United States, 258 F. Supp. 12, 19-20 (D. Haw. 1966) (decision to limit flood planning to "two-year storm" preparations despite knowing much stronger storms hit the area); Nat'l Union Fire Ins. v. United States, 115 F.3d 1415 (9th Cir. 1997) (decision to extend planning delayed infrastructure improvements despite existing problems causing property damage). *See also* United States v. S.A. Empresa de Viacao Aerea Rio Grandense (Varig Airlines), 467 U.S. 797 (1984) (agency execution of a decided-upon action is discretionary).

[16] *See, e.g.*, E. Ritter & Co. v. Dep't. of Army, Corps of Eng'rs, 874 F.2d 1236 (8th Cir. 1989) (assigning liability for failing to maintain the banks of a flood control project because the decision did not involve public policy considerations; discretionary function exception did not apply because operating the project incorrectly was not part of USACE's mandated policy to prevent flooding). ARA Leisure Servs. v. United States, 831 F.2d 193, 195 (9th Cir. 1987) (failure to maintain a road in a National Park was not "a decision grounded in social, economic, or political policies"). *But see* Cope v. Scott, 45 F.3d 445 (D.C. Cir. 1995) (deciding on the level of maintenance of a government

Immunity Under the Flood Control Act of 1928

Flood claims against the United States have historically had to overcome immunity defenses under the Flood Control Act of 1928 (FCA), which provides that the United States shall not have "liability of any kind ... for any damage from or by floods or flood waters at any place."[17] Section 3, codified at 33 U.S.C. § 702c, allows the government to construct large flood control projects while limiting liability if those efforts do not prevent all flooding damage.[18] FCA immunity is available to federal agencies such as the U.S. Army Corps of Engineers (USACE), but the breadth and scope of this immunity has been subject to litigation.[19] Though the Supreme Court observed that "it is difficult to imagine broader language" than FCA immunity, the case history evinces a more nuanced application.[20]

At one point, the Supreme Court broadly applied FCA immunity. In *United States v. James* (1986), the Court upheld an FCA immunity defense for wrongful death claims against the government after two people drowned in the reservoirs of federal flood control projects.[21] The Court reasoned that the FCA's purpose was to limit federal liability for flood control projects, so immunity broadly applied to "all waters contained in or carried through a federal flood control project."[22] For years following *James*, most courts applied FCA immunity if a public works project had flood control as one of its purposes, though circuits disagreed on the required nexus to flood control.[23]

The Supreme Court revisited FCA immunity in its 2001 case *Central Green Co. v. United States*, directing lower courts to conduct a more nuanced examination of the statute. According to the Court, the test for whether immunity attaches depends on the "character of the waters" causing the damage as opposed to the relationship of a flood control project to that damage.[24] Characterizing the FCA immunity discussion in *James* as dicta, the Court said that the test for immunity was no longer based on the character of the federal project or the purpose it served but rather on the waters that caused the damage and the purpose for their release.[25] Since *Central Green*, courts have carefully considered the "character of the waters" in denying immunity for

project involved considerations of public policy, even if resulting in a failure to maintain a road, as agencies are allowed to establish priorities based on staffing and funding); Childers v. United States, 40 F.3d 973 (9th Cir. 1994) (determining that National Park Service's trail maintenance was a discretionary action based on resource constraints).

[17] 33 U.S.C. § 702c.

[18] 69 Cong. Rec. 6641 (1928). *See also* United States v. James, 478 U.S. 597, 608 (1986).

[19] *See* Morici Corp. v. United States, 491 F. Supp. 466 (E.D. Cal. 1980), *aff'd*, 681 F.2d 645 (9th Cir. 1982).

[20] *James*, 478 U.S. at 604 (declaring Section 702c language "unambiguous"); *id.* at 597.

[21] *Id.*

[22] *Id.* at 597–98.

[23] Circuits agreed that FCA immunity did not extend to "wholly unrelated" federal projects, but they disagreed over how connected the project must be to flood control. *Compare* Boyd v. United States ex rel. U.S. Army, Corps of Eng'rs, 881 F.2d 895 (10th Cir. 1989) (limiting FCA immunity to flood control operations, versus projects with nexus to flood control) *with* Reese v. S. Fla. Water Mgmt. Dist., 59 F.3d 1128 (11th Cir. 1995) (per curiam) (applying FCA immunity to projects whose operational purposes include flood control, independent of underlying activity).

[24] 531 U.S. 425, 437 (2001). As the Supreme Court observed, "[t]he text of the statute does not include the words 'flood control project.' Rather, it states that immunity attaches to 'any damage from or by floods or flood waters ... ' Accordingly, the text of the statute directs us to determine the scope of the immunity conferred, not by the character of the federal project or the purposes it serves, but by the character of the waters that cause the relevant damage and the purposes behind their release." *Id.* at 434.

[25] *Id.* (overturning *James*, 478 U.S. at 604).

damage from routine water use, as opposed to floodwater impacts. This change allowed more tort claims against the government to proceed notwithstanding the FCA.[26]

Takings Claims

The Tucker Act authorizes the U.S. Court of Federal Claims to consider non-tort claims for damages arising under the Constitution.[27] This authorization allows plaintiffs to sue the U.S. government for property damage under the Fifth Amendment's Takings Clause.[28] Unlike claims for government-caused damages under the FTCA, a takings claim under the Tucker Act requires no negligence or wrongdoing by the United States. For a Tucker Act claim, a property holder needs to show (1) a compensable property interest and (2) that the United States took that property interest without acquiring it through the appropriate legal means.[29] Private property includes but is not limited to real estate and refers to an ownership or use right under either state or federal law. The government may have a defense to flood-related takings claims if it invoked police powers or the doctrine of necessity to justify emergency action, such as preventing fire from spreading or forestalling grave threats to life and property.[30]

Throughout the 20th century, plaintiffs were generally limited in recovering takings claims for flood-related damages due in large part to the Supreme Court's 1939 opinion in *United States v. Sponenbarger*.[31] That case held that when protecting a significant area from flooding, the government is not liable to every owner whose property it cannot protect.[32]

In the 21st century, courts have increasingly considered takings claims for flooding liability. In 2001 and again in 2022, the U.S. Court of Appeals for the Federal Circuit determined that FCA immunity does not apply to takings claims, as Congress did not clearly and explicitly repeal Tucker Act jurisdiction to hear claims for flood-related damages when it adopted the FCA.[33]

This holding clarified that the FCA does not insulate the government from flood-related takings claims against the United States. Courts remain free to consider carefully whether the government

[26] *E.g.*, Fortner v. Tenn. Valley Auth., No. 04-CV-363, 2005 WL 2922190 (E.D. Tenn. Nov. 4, 2005) (applying FCA immunity where boaters died in undercurrents after federal operators opened floodgates); *In re* Katrina Canal Breaches Litig., 696 F.3d 436, 444–46 (5th Cir. 2012), discussed *infra*.

[27] 28 U.S.C. § 1491(a)(1).

[28] U.S. CONST. amend. V; *see also* Cong. Research Serv., *Overview of the Takings Clause*, CONSTITUTION ANNOTATED, https://constitution.congress.gov/browse/essay/amdt5-9-1/ALDE_00013280/ (last visited Jan. 23, 2023).

[29] *See*, *e.g.*, Milton v. United States, 36 F.4th 1154 (Fed. Cir. 2022).

[30] *Id.* at 1162 (citing Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1029 & n.16 (1992); Bowditch v. Boston, 101 U.S. (11 Otto) 16, 18–19 (1879); Pa. Coal Co. v. Mahon, 260 U.S. 393, 415–16, (1922); TrinCo Inv. Co. v. United States, 722 F.3d 1375, 1377–78 (Fed. Cir. 2013)).

[31] 308 U.S. 256 (1939).

[32] *Id.* at 265; *c.f. In re* Downstream Addicks, 147 Fed. Cl. 566, 583 (2020) (applying *Sponenbarger* for the "routine" proposition that the government does not owe compensation to every landowner whom it fails to protect from existing flood hazards), *rev'd on other grounds by Milton*, 36 F.4th 1154.

[33] California v. United States, 271 F.3d 1377, 1381, 1383 (Fed. Cir. 2001) (finding no evidence that Congress intended for FCA to preclude Tucker Act claims), *accord Milton*, 36 F.4th at 1160.

"caused" the taking,[34] such as by examining the "character of the waters."[35] Courts also look at the "entirety" of the government action by weighing the benefits from a federal flood control project against any resulting flooding harm.[36]

Since 2012, a line of takings cases has emerged that provides additional support for certain takings theories against the United States for flooding damages. Specifically, the Supreme Court held in *Arkansas Game & Fish Commission* that a flowage easement is a potentially compensable property right under the Takings Clause.[37] A *flowage easement* is a right to inundate someone else's land, even intermittently.[38] As detailed in *Arkansas Game & Fish Commission*, temporary flooding can rise to a Fifth Amendment taking of a flowage easement that entitles a property owner to just compensation.[39] The Court identified several factors to determine whether such a taking has occurred, including the flood's duration, the character of the land, the investment-backed expectations of the landowner, the intent and foreseeability of government action, and the severity of the interference. This explicit recognition of a temporary taking of a flowage easement opened a path for plaintiffs to pursue flooding damage claims under the Fifth Amendment, which was put to the test in litigation emanating from Hurricane Katrina.[40]

Failed Infrastructure: The Varied Examples of Hurricane Katrina Litigation

Hurricane Katrina struck the Gulf Coast in 2005 and became the costliest U.S. storm on record.[41] By August 31, 2005, 80% of New Orleans was under water.[42] While some flooding was expected,

[34] *E.g.*, Ridge Line v. United States, 346 F.3d 1346 1356–57, (Fed. Cir. 2003) (comparing Sanguinetti v. United States, 264 U.S. 146, 149–50, (1924) (no taking where claimant could not prove the government's construction of a canal caused increased flooding) *with* Cotton Land Co. v. United States, 75 F. Supp. 232, 232–35 (Fed. Cl. 1948) (taking where dam construction and operation initiated a series of events that led to deprivation of the beneficial use of land); *Orr et al. v. United States*, 145 Fed. Cl. 140 (2019) (denying motion to dismiss claim against Bureau of Reclamation for excessive flooding resulting from a single incident of opening floodgates due to possibility that discovery could reveal facts supporting a taking but not foreclosing subsequent dismissal if sounding in tort).

[35] Ark. Game & Fish Comm'n v. United States, 568 U.S. 23, 39 (2012) (citing Palazzolo v. Rhode Island, 533 U.S. 606, 618 (2001)).

[36] *E.g.*, St. Bernard Par. Gov't v. United States, 887 F.3d 1354, 1357–58 (Fed. Cir. 2018), *cert. denied*, 139 S. Ct. 796 (2019).

[37] 568 U.S. 23; *see also* Cong. Research Serv., *Physical Takings*, CONSTITUTION ANNOTATED, https://constitution.congress.gov/browse/essay/amdt5-5-4/ALDE_00013283/ (last visited Jan. 3, 2023).

[38] *Ark. Game & Fish Comm'n*, 568 U.S. 23.

[39] *Id.*; *see also* Story v. Marsh, 732 F.2d 1375, 1383 (8th Cir. 1984) (explaining that property owners could not claim ignorance of flowage easement implications because easement language was clear, unambiguous, and comprehensible).

[40] Although Hurricane Katrina occurred in 2005, litigation over that storm was still underway when the Supreme Court issued its 2012 opinion in *Arksansas Game & Fish Commission*. *See St. Bernard Par. Gov't. v. United States*, 126 Fed. Cl. 707, 741 (explaining that the significance of *Arkansas Game & Fish Commission* "cannot be overstated" and initiated a new round of briefs), *rev'd on other grounds by St. Bernard Par. Gov't*, 887 F.3d 1354 (discussed *infra*). As the trial court detailed, it took over a decade to address Katrina's takings claims because constitutional cases such as these will typically proceed only if they cannot be resolved on other grounds, including under the Federal Tort Claims Act. *Id.* at 740.

[41] National Oceanic & Atmospheric Admin. (NOAA), *Hurricane Costs* (Dec. 14, 2022), https://coast.noaa.gov/states/fast-facts/hurricane-costs.html. While plaintiffs alleged trillions in damages as described *infra*, NOAA estimated damages at more than $150 billion. *Id.*

[42] For an extensive study of levee failure, see Interagency Performance Evaluation Task Force (IPET), Performance Evaluation of the New Orleans and Southeast Louisiana Hurricane Protection System, Final Report of the Interagency

the extent of inundation was unprecedented, in part because the influx of water overwhelmed the large part of the city that sits near or below sea level and lacks natural drainage. A significant amount of flooding in New Orleans resulted from structural failure of levees and floodwalls, allowing storm surge to flow into the low-lying city.[43] In total, hurricane protection infrastructure failed in approximately 50 locations.[44] Much of this infrastructure was authorized by Congress, constructed or under construction by USACE, and maintained by local levee districts.[45]

Courts had the responsibility to determine federal liability for flood-related damages. In Katrina's aftermath, a substantial number of plaintiffs filed claims totaling trillions of dollars in damages, many naming the United States as defendant.[46] Suits included both tort and takings claims. Some plaintiffs alleged damages from failures of the city's protective perimeter as authorized by the Lake Pontchartrain and Vicinity Hurricane Protection Project; others claimed damages associated with the Mississippi River Gulf Outlet (MRGO), a federally authorized shipping channel east of the city.[47] The Eastern District of Louisiana consolidated many of the suits against the federal government into *In re Katrina Canal Breaches Consolidated Litigation*.[48]

The history of this litigation is a case study in the exposures and limits of the government's liability for flooding. The Fifth Circuit resolved many of these cases in 2013, widely applying FCA immunity and the FTCA's discretionary function exception to the various tort claims against the government.[49] In the end, the government broadly avoided liability for the Hurricane Protection System failures and more narrowly avoided paying compensation for claims associated with MRGO. Takings claims associated with MRGO—though ultimately unsuccessful—

Performance Evaluation Task Force (2009), https://biotech.law.lsu.edu/katrina/ipet/ipet.html (last visited Jan. 24, 2023) [hereinafter IPET Report]. Roughly half of New Orleans sits below sea level and the city is virtually surrounded by water, with Lake Pontchartrain to its north, the Mississippi River bounding the west and south, and the Gulf of Mexico further to the east. According to the IPET Report, more than 80% of the city flooded. *See* IPET Report, Vol. I at I-3.

[43] Levees are typically broad, earthen structures. Floodwalls may be built atop levees or in place of levees and made of concrete and steel. The infrastructure around New Orleans represented a combination of federal and local investments and responsibilities (the *Hurricane Protection System*). According to one report, most breaches resulted from overtopping of water exceeding protective structures, but some breaches occurred before the surge exceeded the structures' design (i.e. floodwalls failed). Richard Knabb et al., *Tropical Cyclone Report: Hurricane Katrina* 9, Nat'l Hurricane Ctr. (Dec. 20, 2005), https://biotech.law.lsu.edu/katrina/govdocs/TCR-AL122005_Katrina.pdf.

[44] IPET Report, *supra* note 42, at I-3.

[45] Pub. Law No. 89-298, § 204, 79 Stat. 1073, 1077 (1965); Water Resource Development Acts of 1974 (Pub. Law No. 93-251, Title I, § 92), 1986 (Pub. Law No. 99-662, Title VIII, 805), 1990 (Pub. Law No. 101-640, § 116), 1992 (Pub. Law No. 102-580 § 102), 1996 (Pub. Law No. 104-303 §325), 1999 (Pub. Law No. 106-53, § 324), and 2000 (Pub. Law No. 106-541, § 432). Construction was ongoing when Hurricane Katrina struck in 2005, with some portions of the system managed by the levee districts and others under USACE jurisdiction. *See* IPET Report, *supra* note 42, Vol III, at III-40.

[46] *Katrina Canal Breaches Litig.*, 696 F.3d at 443 (citing 21,166 entries in the consolidated federal docket); Brad Heath, *Katrina Victims Swamp Corps for Trillions in Claims*, USA TODAY (Jan. 7, 2008), https://usatoday30.usatoday.com/news/nation/2008-01-06-katrina-claims_N.htm (noting over 489,000 claims against USACE, of which 247 claims sought $1 billion or more).

[47] Pub. Law No. 84-155, 70 Stat. 65 (1956); Pub. Law No. 89-298, § 204, 79 Stat. 1073, 1077 (mandating design and construction of levees and floodwalls to withstand a "standard hurricane" for the region, which was roughly equivalent to a Category 3 hurricane). Much of the federal flood control infrastructure was part of the Lake Pontchartrain and Vicinity Hurricane Protection Project, in which USACE constructed levees and floodwalls while local governments and local levee districts were generally responsible for operation and maintenance once completed.

[48] *See generally* U.S. Dist. Court for E. La., *05-CV-4182 Katrina Canal Breaches Litigation*, http://www.laed.uscourts.gov/CanalCases/CanalCases.htm (last visited Jan. 3, 2023).

[49] *Katrina Canal Breaches Litig.*, 696 F.3d at 443.

demonstrated how *Arkansas Game & Fish Commission* had carved a path for future plaintiffs alleging flooding damages.

When Flood Control Is a Project Purpose: Hurricane Protection Failures

Many plaintiffs brought claims against the federal government alleging faulty design, construction, or maintenance of levees and floodwalls designed to protect New Orleans from storm damage. Most of those failures occurred due to floodwaters that rose higher than the levees and floodwalls designed to contain them, although some infrastructure failed for other reasons.[50] The district court determined that although the flood control system was "tragically flawed," most of these claims were immune from suit under the FCA because they were part of an authorized federal flood protection project.[51] Upholding that judgment on appeal, the Fifth Circuit was clear that while the project design and plans "may not have been prudent," Congress still approved them.[52] Thus, even if USACE were negligent, the FCA immunized the government against any fault in designing, constructing, and maintaining flood control infrastructure.[53]

One group of plaintiffs failed to overcome the discretionary function exception for negligence claims based on a failure to properly dredge and maintain a canal.[54] Those plaintiffs unsuccessfully argued that USACE violated a non-discretionary duty to follow agency policies governing dredging permits and relied on scientific judgment in making decisions, as opposed to public policy considerations.[55] The trial court determined and the Fifth Circuit affirmed that USACE had discretion under the cited regulation to determine when and how to take action, with decisions based on both technical and public policy considerations.[56] Accordingly, the FTCA's discretionary function exception barred those claims.[57]

Another group of plaintiffs unsuccessfully filed takings claims against the United States for damage associated with flooding from canals that formed part of the federally authorized Lake Pontchartrain and Vicinity Hurricane Protection Project.[58] The trial court dismissed the suit, holding that plaintiffs' properties flooded as a result of Hurricane Katrina, not governmental action associated with construction or maintenance of the canals and levees.[59] To the extent that federal action played any role, it was secondary to that of the severe storm, which was the

[50] Congress approved the system to withstand a "standard" storm roughly equivalent to a Category 3 storm. Although Katrina was a Category 3 storm at the time of landfall, its storm surges of up to 19 feet were higher than standard (9-12 feet). *See* Richard Knabb et al., *supra* note 43; IPET, *supra* note 42, Vol. I (noting variances in construction material quality and floodwall design risk levels, and elevation variations due to subsidence and human error, with some levee failures occurring before water levels exceeded the designed level of protection).

[51] *Katrina Canal Breaches Litig*., 696 F.3d at 448; *In re* Katrina Canal Breaches Consol. Litig., No. 05-CV-4182, 2013 WL 1562765, at *20 (E.D. La. Apr. 12, 2013).

[52] *Katrina Canal Breaches Litig*., 696 F.3d at 448.

[53] *Id.*

[54] *Id.*; *Katrina Canal Breaches Litig*., 696 F.3d at 452. These plaintiffs were commonly referred to as the Anderson plaintiffs.

[55] *Id.*

[56] *Id*. (applying the discretionary function exception for a public-policy-informed decision to issue a dredging permit); *In re* Katrina Canal Breaches Consol. Litig., 533 F. Supp. 2d 615, 638 (E.D. La. 2008) at 641–42.

[57] *Katrina Canal Breaches Litig.*, 696 F.3d 436.

[58] Nicholson v. United States, 77 Fed. Cl. 605 (2007).

[59] *Id.*

precipitating event that caused water to pour into the city.[60] The lack of discrete action by the government and one-time nature of the flooding further supported the trial court's dismissal.[61] Notably, however, the court foreshadowed that takings claims based on flood damages attributed to MRGO could potentially lead to a different outcome, as those cases concerned a project authorized for the purpose of navigation rather than flood control infrastructure.[62]

When Flood Control Is Not a Project Purpose: MRGO Litigation

Some plaintiffs argued that the storm surge that overtopped or breached levees was exacerbated by the construction, operation, and delayed improvements associated with MRGO. MRGO is a 76-mile navigational channel between the Port of New Orleans and the Gulf of Mexico originally designed and built as a shortcut for ships.[63] Studies and courts have reviewed whether MRGO became a "hurricane highway," or a funnel accelerating the movement of water inland. The Fifth Circuit determined that more than a decade of USACE decisions to defer action based on costs, and the lack of a local sponsor, left MRGO's levee vulnerable to wave attacks as the channel eroded up to three times its width.[64]

Tort Claims for Negligence in Operation and Maintenance of Infrastructure

Although courts had applied FCA immunity broadly to government actions associated with federal projects whose purposes included flood protection, the trial court did not apply FCA immunity to several groups of plaintiffs alleging that MRGO was responsible for flooding because its project purpose was for shipping as opposed to flood control.[65] The appellate court similarly denied immunity to the government, but it used a more nuanced analysis, looking at the activity that caused the harm as opposed to the overall project purpose.[66] The Fifth Circuit built on the "character of the waters" analysis and limited FCA immunity to claims where water was "released by flood-control activity or negligence therein."[67] The court determined that a portion of MRGO's channel allowed waters to be pushed into New Orleans, amplifying the storm surge and raising Lake Pontchartrain levels, which increased the pressure on levees across the area.[68] Those claims could overcome FCA immunity, including that storm surge enabled by MRGO contributed to canal flooding.[69]

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[60] *Id.* at 618.

[61] *Id.* at 619–20 (finding "no indication that the specific design of the walls, their placement or their function, imperfect as it was, exacerbated the flooding ... [N]o authoritative takings guidance ... grants relief for omissions, oversights, or bad decisions"). Notably, this decision preceded *Ark. Game & Fish Com'n*, discussed *supra*.

[62] *Id.* at 622 (citing the Chief of Engineers' preliminary assessment that MRGO contributed to Katrina's storm surge).

[63] Pub. Law No. 84-155, 70 Stat. 65.

[64] *Katrina Canal Breaches Litig.*, 696 F.3d at 443.

[65] *E.g.*, *Katrina Canal Breaches Consol. Litig*., 533 F. Supp. 2d 615; In re Katrina Canal Breaches Consol. Litig., 647 F. Supp. 2d 644, 699 (E.D. La. 2009); *Katrina Canal Breaches Consol. Litig*., 577 F. Supp. at 821–27; *see also*.*In re* Katrina Canal Breaches Consol. Litig., 577 F. Supp. 2d 802, 821–27(E.D. La. 2008) (limiting FCA immunity to floodwaters with a nexus to a flood control project); Graci v. United States, 456 F.2d 20 (5th Cir. 1971) (rejecting FCA immunity for MRGO claims following Hurricane Betsy).

[66] *Katrina Canal Breaches Litig*., 696 F.3d at 444–47.

[67] *Id.* at 448 (applying *Cent. Green*, 531 U.S. 425 and *Graci*, 456 F.2d 20).

[68] *Id.* at 445 (citing *Katrina Canal Breaches Litig.*, 647 F. Supp. 2d at 671).

[69] *Id.*; *see also Katrina Canal Breaches Consol. Litig*., 533 F. Supp. 2d at 637 (applying FCA immunity to Lake Pontchartrain and Vicinity Hurricane Protection Project); *Katrina Canal Breaches Consol. Litig*., 577 F. Supp. 2d at 802. Some plaintiffs alleged claims based on MRGO-fueled storm surge, which they argued was solely a navigational

The courts then had to decide to what extent the FTCA's discretionary function exception could serve as a valid defense to MRGO-related tort claims.[70] One set of plaintiffs prevailed in overcoming the discretionary function exception but then failed to prove that the U.S. government *caused* the floodwall failures.[71]

Three plaintiffs succeeded at the trial level in overcoming the discretionary function exception and obtained favorable judgments against the United States, but the appellate court reversed.[72] The trial court found these plaintiffs had proven USACE negligence in the maintenance and operation of MRGO, which was a "substantial cause" in levee breaches and subsequent flooding.[73] However, on appeal, the Fifth Circuit held that these plaintiffs could not overcome the discretionary function exception because maintenance and operation of MRGO, as well as the timing of improvements to protect MRGO's shores, was susceptible to policy analysis, which barred the claim as a discretionary function.[74] The appellate court also held that a procedural violation of the National Environmental Policy Act—even if compliance with the statute was mandatory—was insufficient to overcome the FTCA's discretionary function exception.[75]

Takings Claims for Construction, Operation, and Improper Maintenance

In 2018, the Federal Circuit in *St. Bernard Parish v. United States* considered whether payment of just compensation was required for the taking of a flowage easement following Hurricane Katrina based on the construction, operation, and failure to maintain MRGO.[76] The appellate decision hinged on a nuanced analysis of whether the government had "caused" a taking. Specifically, the court considered whether the water "invasion" was a "direct, natural, or probable result of an authorized activity" in light of the entirety of federal projects in the area.[77] The court determined that USACE's *failure* to timely protect MRGO's levee was not part of an "authorized activity" and thus failed the causation test. However, affirmative federal actions in constructing and operating MRGO merited further consideration.[78]

project. *In re* Katrina Canal Breaches Consol Litig., 471 F. Supp. 2d 684, 695–97 (E.D. La. 2007).

[70] *See St. Bernard Par. Gov't*, 121 Fed. Cl. at 691.

[71] *Katrina Canal Breaches Consol. Litig.*, 2013 WL 1562765, at 21.

[72] *Katrina Canal Breaches Litig.*, 647 F. Supp. 2d 644; *Katrina Canal Breaches Litig*., 696 F.3d at 449–53. These plaintiffs were known as the *Robinson* plaintiffs. After 19 days at trial, the district court found that three of seven of the Robinson plaintiffs had proven the government's full liability. *Katrina Canal Breaches Litig*., 696 F.3d at 443. The appellate court analyzed MRGO and concluded that the discretionary function exception—"unfortunately" for plaintiffs—mooted any finding of liability. *Katrina Canal Breaches Litig*., 696 F.3d at 454.

[73] *Katrina Canal Breaches Litig.*, 647 F. Supp. 2d at 697. The court cited USACE's duty under Louisiana law for landowners "to discover any unreasonably dangerous condition" and either correct it or warn of its existence, which it found USACE failed to do. *Katrina Canal Breaches Litig.*, 647 F. Supp. 2d at 733 (limiting negligence to operation and maintenance while declining to find liability based on the original design and construction of the channel).

[74] *Katrina Canal Breaches Litig*., 696 F.3d at 453.

[75] *Id.* at 450 (reversing *Katrina Canal Breaches Litig.*, 647 F. Supp.2d at 725, which had rejected the discretionary function exception due to USACE's failure to comply with a mandatory duty under the National Environmental Policy Act when it did not report that "MRGO was causing significant changes in the environment" and the effects such changes could have on the surrounding community).

[76] *St. Bernard Par. Gov't*, 887 F.3d at 1357–58.

[77] *Id.*

[78] *Id.* at 1360 ("While the theory that the government failed to maintain or modify a government-constructed project may state a tort claim, it does not state a takings claim. A property loss compensable as a taking only results when the asserted invasion is the direct, natural, or probable result of authorized government action.").

As for whether federal construction and operation of MRGO constituted a taking, the Federal Circuit determined that plaintiffs had not sufficiently proven causation. The court said that determining causation for temporary flood-related takings requires consideration of the entirety of government actions related to risks, including whether flooding would have occurred absent *any* federally authorized activity (such as the separate Lake Pontchartrain and Vicinity Hurricane Protection Project) and any government action that mitigated the alleged damages.[79] In particular, the court said that any causation analysis for flood-related takings must "consider both risk-increasing and risk-decreasing government actions over a period of time to determine whether the totality of the government's actions caused the injury."[80] Though it rejected the *St. Bernard Parish* takings claims based on this standard, the court left open the possibility of future awards where flood protection benefits from government actions fail to offset flooding damage.

Intentional Flooding by Design

In some situations, damage occurs where a government action was expected to lead to flooding. As with negligence claims, intentional torts may be subject to the FTCA's discretionary function exception and FCA immunity. Similarly, takings claims may be brought irrespective of intent. The evolution of claims following *Arkansas Game & Fish* shows how plaintiffs have increasingly turned to takings claims to allege government-induced flooding.

Hurricane Harvey: Takings for Flooding According to Plans

In August 2017, Hurricane Harvey pushed through the Gulf of Mexico and circled over Houston for days, leading to widespread flooding from the most significant tropical cyclone rainfall event in U.S. history.[81] The massive storm dumped several feet of water on the city, whose flood control system relied heavily on the reservoirs behind the Addicks and Barker dams operated by USACE. With water filling the reservoirs upstream of the dams faster than they could drain, USACE opened the system's floodgates and, for the first time since the system was constructed, released water from both reservoirs downstream in the direction of Houston.[82] By the time the storm had passed, Harvey had caused more than $100 billion in damage, including flooding more than 150,000 Houston-area properties both upstream and downstream of the reservoirs.[83] These upstream homes largely did not exist when Addicks and Barker were constructed, and downstream urban development had likewise intensified since dam construction.[84]

Beginning in September 2017, hundreds of property owners filed Tucker Act complaints in the Court of Federal Claims seeking compensation for damages from USACE's operation of the Addicks and Barker reservoirs, which they alleged caused a physical taking of property.[85] The

[79] *Id.* at 1365–67.

[80] *Id.* at 1365.

[81] NOAA, *supra* note 41; *see also* Harris Cnty. Flood Control Dist., *Memorandum re: Immediate Report – Final Hurricane Harvey – Storm and Flood Information* (June 4, 2018), https://www.hcfcd.org/Portals/62/Harvey/immediate-flood-report-final-hurricane-harvey-2017.pdf.

[82] *Downstream Addicks*, 147 Fed. Cl. at 573.

[83] *Id.* at 14; NOAA, *supra* note 41.

[84] Rebecca Hersher, *Houston Got Hammered By Hurricane Harvey — And Its Buildings Are Partly To Blame*, NAT'L PUB. RADIO (Nov. 14, 2018), https://www.npr.org/2018/11/14/666946363/houston-got-hammered-by-hurricane-harvey-and-its-buildings-are-partly-to-blame/ (last visited Jan. 27, 2023).

[85] *See* Milton v. United States, 36 F.4th 1154 (Fed Cir. 2022). For more discussion of flood-related takings liability and the *Milton* decisions, see CRS Legal Sidebar LSB10790, *Opening the Floodgates? Federal Circuit Lets Claims*

court consolidated the cases and split them into two sub-dockets for upstream and downstream property owners.[86] The trial judges found that upstream owners had compensable claims but downstream owners did not, the latter of which was then reversed upon appeal.[87]

Takings Claims for Failure to Obtain Full Scope of Flowage Easements

The courts held in favor of the upstream owners, finding that USACE was liable for damages for the temporary flooding of properties located behind the reservoirs.[88] There, the reservoirs held waters back, and the properties behind them flooded as designed. Although it was widely known that upstream properties could flood as the reservoirs filled, USACE had not acquired flowage easements for the full capacity of the reservoirs. The court determined that when water from Harvey flooded upstream properties, as USACE had planned, those owners were entitled to compensation for the government's taking of a flowage easement.[89] Of the six bellwether plaintiffs entitled to compensation, damages to each property ranged from $1,400 to $195,000.[90]

Takings Claims for Opening Floodgates to Release Floodwaters Downstream

For the downstream owners, the trial court rejected takings claims due to lack of a cognizable property interest in "perfect flood control in the wake of an Act of God."[91] On appeal, however, the Federal Circuit allowed the downstream plaintiffs' claims to proceed even where federal floodgates operated according to established plans.[92] In addition to reaffirming that the FCA does not bar a court from hearing every flood-control-related takings claim, the court held that downstream owners had a cognizable property interest in a flowage easement that, if taken, could be compensable under the Fifth Amendment.[93] The appellate court sent the downstream cases back to the trial court to determine whether there had been a permanent or temporary taking sufficiently caused by USACE action that was not subject to a valid defense such as police power or public necessity.[94] The Federal Circuit further instructed the Court of Federal Claims to explicitly apply the factors outlined in *Arkansas Game & Fish Commission* and consider whether the plaintiffs had established causation given the totality of the government's action to address the relevant risks as outlined in *St. Bernard Parish*.[95]

Proceed Against Corps of Engineers for Hurricane-Related Flooding, by Kristen Hite.

[86] Order, *In re* Addicks & Barker (Texas) Flood Control Reservoirs, No. 17-3000L, 2017 WL 6334791 (Fed. Cl. Dec. 5, 2017).

[87] *In re* Upstream Addicks & Barker (Texas) Flood Control Reservoirs (Upstream Addicks), 146 Fed. Cl. 219 (2019); *Downstream Addicks*, 147 Fed. Cl. at 583.

[88] *Upstream Addicks*, 146 Fed. Cl. 219.

[89] *Id.*

[90] *In re* Upstream Addicks & Barker (Texas) Flood Control Reservoirs, 162 Fed. Cl. 495, 534 (2022). Accounting for interest, awards for the bellwether properties averaged around $90,000 per plaintiff.

[91] *Downstream Addicks*, 147 Fed. Cl. at 570, 584 (citing the FCA and determining that downstream owners had no vested right in perfect flood control simply because they had properties that benefited from flood control structures).

[92] *Milton*, 36 F.4th at 1154. The Federal Circuit acknowledged that an Act of God could affect a finding of liability under Texas law but held that such consideration is relevant only to whether the government had effected a "taking," not whether a cognizable property interest existed in the first instance. *Id.* at 1152.

[93] *Id.* at 1162 (declining to apply a blanket police power exception to USACE's operation of the floodgates at issue).

[94] *Id.* at 1163. The trial court had cited the government's police powers as a basis of denying property claims but had not explicitly considered this in the context of a takings claim defense, *Downstream Addicks*, 147 Fed. Cl. at 579.

[95] *Milton*, 36 F.4th at 1163.

Although the case is ongoing, the rulings thus far demonstrate potential exposure to the government from a single flooding event, even when all actions operate according to plan. While the occurrence of the storm was not entirely predictable, many argue that the resulting flooding generally was. The reservoirs were designed to fill in a major storm event, and the floodgates were designed to open if the reservoirs filled to a certain point. USACE had undertaken measures to advise the public on some of the risks, but the rarity of such a major storm still led to widespread damage that many property owners did not expect. How the courts resolve the downstream cases may serve as a broader indicator of the government's exposure to a reasoned decision to "open the floodgates."

Levee Detonation and Floodway Activation: Mississippi River

In 2011, USACE undertook the rare action of sending a dynamite-loaded barge down the Mississippi River to then detonate a levee near Birds Point, MO. Its purpose was to protect Cairo, IL, a town at the confluence of the Mississippi and Ohio rivers, from some of the highest river levels in the Mississippi River Basin in the past century.[96] As the river's crest moved downstream, the agency activated a floodwater diversion system for the Mississippi River and Tributaries Project (MR&T), initially authorized by the FCA, to open a series of floodways designed to channel excess flow away from the main channel of the Mississippi River.[97] Floodways function as backup channels intended to divert high water flows to reduce flooding risks. In this case, USACE could activate a floodway by detonating part of a levee, knowing that it would inundate the area behind the floodway in order to reduce flooding in other areas. Though Missouri was unsuccessful in preventing the activation of the floodway, some landowners did succeed years later in pursuing takings claims.

Less than a decade following its authorization, the Birds Point to New Madrid floodway was the subject of litigation over flowage easements and flood damage. Following the first floodway activation in 1937, the Supreme Court considered compensation for floodway damages.[98] In that case, the Court refused to recognize a taking based on a single flooding incident from activating the floodway, although the plaintiff in that case was able to obtain a favorable sale of a permanent flowage easement to USACE.[99]

Decades later, the Eighth Circuit considered enjoining USACE from reactivating the floodway and ultimately concluded that no injunction was available to prevent USACE from detonating

[96] Missouri *ex rel.* Koster v. U.S. Army Corps of Engr's, No. 1:11CV00067, 2011 WL 1630339 (E.D. Mo. Apr. 29, 2011), aff'd No. 11-1937 (8th Cir. Apr. 30, 2011), No. 10A1059 (U.S. May 1, 2011) (Alito, J., in chambers) (injunction denied); *see also* Sheila Simon, *Blowing Up Missouri: Lessons for the Next Great Flood*, 91 UMKC L. REV. 135 (2022).

[97] Missouri, 2011 WL 1630339; Quebedeaux v. United States, 112. Fed. Cl. 317 (2013) (denying motion to dismiss for single event taking following the second-ever opening in 2011 of the MR&T Morganza floodway); Flood Control Act of 1928, ch. 569, 45 Stat. 534 (33 U.S.C. § 702 et seq.) (authorizing measures to protect against flooding and maintain navigation through a series of floodways to divert floodwaters in order to reduce pressure on other segments of the levee system). Operational plans for MR&T floodways have been modified since the system was created. See, e.g., Flood Control Act of 1965, Pub. Law No. 89-298, 79 Stat. 1076–77.

[98] Danforth v. United States, 308 U.S. 271 (1939).

[99] *Id.* (citing Flood Control Act of 1928 § 4).

levees during a high water event.[100] There, the court cited explicit congressional authorization for USACE to intentionally breach levees when water exceeded certain levels.[101]

Likewise, in 2011, Missouri unsuccessfully sued to prevent USACE from detonating the Birds Point levee, citing concerns that the diverted water would flood 130,000 acres of homes and farms.[102] There, the court refused to enjoin USACE from detonating the levee near Cairo on the basis that the action was not reviewable, and even if it were, the decision was for USACE to make.[103] USACE first blew holes in the Birds Point levee to divert water from Cairo and then opened three more floodways downstream.[104] As predicted, floodway activation inundated farmland and residences in Missouri in order to prevent damage in Cairo and beyond.[105] Missouri landowners filed takings claims as a class action, *Big Oak Farms v. United States*, claiming a right to compensation based on USACE's decision to flood their properties as designed.[106]

Although the FCA authorized USACE to acquire flowage easements for the Birds Point floodway, plaintiffs alleged that USACE had not acquired easements to the full scope of lands affected by activation of the floodway, both in terms of geographic reach and magnitude of impact.[107] Notably, the Eighth Circuit had considered inadequate easement coverage in 1984 and determined that while imperfect acquisition could not serve as the basis to prevent floodway activation, plaintiffs could file a takings claim for any ensuing flooding damage.[108]

The evolution of claims in *Big Oak Farms v. United States* showcases the significance of *Arkansas Game & Fish Commission*. In 2012, the *Big Oak Farms* court initially dismissed many claims on the basis that a single flooding event was more akin to a tort and did not constitute a permanent taking. The Court of Federal Claims dismissed claims based on the single flooding

[100] *Story*, 732 F.2d at 1375. In *Story*, the court observed that Congress authorized both the construction of the levees and the artificial breaching of those levees when water exceeded certain levels set by operational plans. *Id.* at 1380–81.

[101] *Id.* Because Congress broadly delegated levee operation to USACE without further direction on whether or where to breach, the court afforded USACE a high degree of deference to the agency's technical expertise. *Id.*

[102] *Missouri*, 2011 WL 1630339; *see also* Press Release, Mo. Att'y Gen., Attorney General Koster Asks Court to Intervene in Birds Point Demolition (Apr. 26, 2011) (raising concerns that flooding could render extensive tracts of farmland unproductive for a generation). The claims were brought under the Administrative Procedure Act, 5 U.S.C. § 702, and Clean Water Act, 33 U.S.C. § 1371(a).

[103] *Missouri*, 2011 WL 1630339. The court held that the agency's decades-old plan to detonate the levee did not qualify as rulemaking, the plan could be changed without formal notice or a hearing, and nothing prevented the agency from undertaking additional emergency measures if so warranted. *Id.* (citing *Story*, 732 F.2d at 1380–84). It also held that the decision to activate the floodway was not arbitrary, capricious, or an abuse of discretion under the Administrative Procedure Act (APA). *Id.* at 6.

[104] Associated Press, *Army Corps of Engineers to Blow Hole in Levee In Effort to Save Illinois Town from Flooding*, WASH. POST (May 2, 2011), https://www.washingtonpost.com/national/army-corps-of-engineers-to-blow-hole-in-levee-to-save-illinois-town-from-flooding/2011/05/02/AFV1XNcF_story.html.

[105] *Flood Warnings: Mississippi River Forecast to Swell to Historic Levels Across the Deep South*, WASH. POST (Apr. 28, 2011). The four floodways included Birds Point–New Madrid floodway (Missouri), Bonnet-Carre floodway (Louisiana), Morganza spillway (Louisiana), and the West Atchafalaya floodway (Louisiana).

[106] Big Oak Farms, Inc. v. United States, 105 Fed. Cl. 48 (2012) (granting motion to dismiss); Big Oak Farms, Inc. v. United States, 131 Fed. Cl. 45 (2017) (denying motions for summary judgment).

[107] Flood Control Act of 1928 § 4; *Story*, 732 F.2d at 1384 (noting USACE said it obtained the necessary easements); Compl. ¶ 28, Big Oak Farms, Inc. v. United States, No. 11CV00275 (Fed. Cl. May 3, 2011), 2011 WL 1652432 (alleging that levels of sand and gravel deposited exceeded the easements' scope).

[108] *Story*, 732 F.2d 1375. For lands that flooded regardless of whether the floodway was activated, compensation could be denied. *See, e.g. Missouri*, 2011 WL 1630339. Landowners could alternatively seek relief through other means, such as insurance, from the U.S. Department of Agriculture. *See* U.S. Dep't of Agric., Bulletin No. MGR-11-004, *Flooding of the Birds Point-New Madrid Floodway* (May 4, 2011).

event in 2011 because it was authorized to hear claims only for takings, not torts.[109] Soon after that initial dismissal, the Supreme Court recognized in *Arkansas Game & Fish Commission* that flooding need not be a permanent taking for a property owner to receive compensation.[110] In response, the Court of Federal Claims reinstated the *Big Oak Farms* claims and was willing to consider this single instance of flooding damage as potentially subject to takings claims.[111] In 2017, the court recognized the fact-specific analysis of a flooding claim required by *Arkansas Game & Fish Commission* and allowed plaintiffs' claims to proceed to trial and provide evidence that flood damage outweighed flood protection benefits.[112] Although the various claims in *Big Oak Farms* were ultimately dismissed or settled, the litigation nevertheless illustrates the potential scale of liability.[113]

Removal of Infrastructure: Missouri River

Whether USACE's intentional acts require flowage easements is before the courts again in *Ideker Farms v. United States*, which is before the courts of the Federal Circuit. Between 2014 and 2020, hundreds of property holders along the Missouri River from Bismarck, ND, to Leavenworth, KS, filed suit against the United States seeking hundreds of millions of dollars in compensation based on USACE-induced flooding in more than 100 separate events occurring between 2007 and 2014.[114] Plaintiffs alleged the taking of flowage easements by USACE's action along the Missouri River, including upstream water releases to support endangered species and removal of some 20th-century infrastructure to allow a more "natural" variation in river levels.[115] As of January 2023, both sides were awaiting a decision by the Federal Circuit to resolve matters on appeal, with trial proceedings on hold pending that outcome.

In 2018, the trial court determined which USACE activities had caused flood damage on representative plaintiffs' properties (*Ideker I*).[116] The court found that federally authorized changes to infrastructure and river flows that were intended to cultivate habitat for fish and wildlife, including listed species under the Endangered Species Act (ESA), had caused flood damage to specific parcels that constituted a taking.[117] The court dismissed claims from 2011—the most substantial flooding event—on the basis that flooding would have occurred with or without USACE's actions.[118] However, for years other than 2011, the court found that federal

[109] *Big Oak Farms*, 131 Fed. Cl. at 47 (citing *Big Oak Farms*, 105 Fed. Cl. 48).

[110] *Ark. Game & Fish Comm'n*, 568 U.S. 23.

[111] *Big Oak Farms*, 131 Fed. Cl. at 54 (identifying disputed issues as to the extent the breach caused additional damages and, if so, whether overall flood protection benefits from the levee system outweighed the harm caused by the breach).

[112] *Id.*

[113] Big Oak Farms v. United States, 141 Fed. Cl. 482 (2019) (dispensing with the initially alleged class action and related claims); Stipulation of Voluntary Dismissal with Prejudice, Big Oak Farms, Inc. v. United States, No. 11-275-L, (Fed. Cl. Feb. 5, 2021).

[114] Ideker Farms, Inc. v. United States (*Ideker I*), 136 Fed. Cl. 654, 661 (2018), *appeal docketed*, No. 21-1875 (Fed. Cir. Apr. 22, 2021).

[115] *Id*. The court described the suite of federal actions as "System and River changes."

[116] *Id.* The Court of Federal Claims consolidated hundreds of suits under the *Ideker* umbrella, identified 40 bellwether plaintiffs representing the broader class, and found a taking for most but not all of those claims. *Id.* at. 659.

[117] The trial court evaluated for each representative plaintiff whether (a) USACE water releases from upstream dams caused their properties to flood, (b) the flooding was foreseeable, and (c) the damage was sufficiently severe to establish a valid claim. *Id.* at 678. The court differentiated between 2011 flooding associated with protecting flood control infrastructure and other release instances intended in part to benefit wildlife habitat. *Id.*

[118] *Id.* at 692–93. The 2011 claims were dismissed because they hinged on whether USACE mismanaged flood control structures, which was a different theory of liability than the Fifth Amendment cases before the Court of Federal Claims.

measures to slow the flow and increase the "roughness" of the river to benefit ESA-listed species had increased water levels and exacerbated flooding.[119] Specifically, 28 of the 44 bellwether plaintiffs had proven that federal actions to benefit wildlife had predictably raised water levels more than would otherwise occur, causing damage that interfered with plaintiffs' use of their land.[120] This holding allowed many of the *Ideker* claims to proceed.

In 2020, the Court of Federal Claims quantified damages for that subset of representative claims and determined that the United States had permanently taken flowage easements (*Ideker II*).[121] The court determined that flooding would continue, was foreseeable, and was severe enough to change the character of the land, thus effecting a permanent taking.[122] The court also found that property damage was more severe due to federal activities intended to enhance fish and wildlife habitat by removing previously authorized infrastructure and making changes to the river.[123]

Ideker II awarded damages in part based on the grounds that government activity interfered with reasonable investment-backed expectations, a traditional consideration in regulatory takings cases.[124] The court concluded that the federal infrastructure authorized in the 20th century had been in place long enough that property owners had reasonably come to rely on them for flood control.[125] For example, the Ideker Farms property was known to be prone to flooding when acquired, but the owner testified that the government had encouraged farmers to invest in farmland, as 20th-century federal infrastructure projects made that possible.[126] The court rejected the government's argument that flood protection benefits offset any increase in flooding related to federal habitat enhancement activities.[127] All told, the indicative properties received awards for the taking of a permanent flowage easement for 27%–30% of the land value.[128]

"The 2011 releases were so overwhelming that levee failure was inevitable." *Id.* at 716.

[119] *Id.* at 705–06. While it is possible levees were to blame for some of the water level changes, the court could not point to specific evidence differentiating levees post-2004 from ESA changes. *Id.*

[120] *Id.* at 674–80.

[121] Ideker Farms, Inc. v. United States (*Ideker II*), 151 Fed. Cl. 560 (2020), *appeal docketed*, No. 21-1875 (Fed. Cir. Apr. 22, 2021).

[122] *Id.* at 572, 584–87. For example, the court found that by 2014, farming the 55 acres of the Ideker Farms property was "no longer sustainable in light of the flood-prone river." *Id.* at 571 (citing *Ideker I*, 136 Fed. Cl. at 747–48).

[123] *Id.* One of the indicative properties—Ideker Farms—had flooded in six different years, and testimony described increased flooding and less predictable river levels under 21st-century management practices than under the 20th-century infrastructure alone. *Id.* at 574.

[124] *E.g. Penn Central Transportation Co. v. City of New York*, 438 U.S. 104, 124. A *regulatory taking* is based on a law or regulation's impact to property, as opposed to a tangible occupation (*physical taking*). For more information on takings, *see generally* Cong. Research Serv., *Overview of Takings Clause*, CONSTITUTION ANNOTATED, https://constitution.congress.gov/browse/essay/amdt5-9-1/ALDE_00013280/ (last visited Jan. 13, 2023).

[125] *Id.* at 588. The court reiterated an earlier determination that the federally authorized infrastructure constructed in the 20th century served as a baseline against which flooding following the 21st-century federally authorized habitat enhancements should be considered, *see* Ideker Farms, Inc. v. United States (*Ideker III*), 146 Fed. Cl. 413, 415–16, 419 (2020) (denying the government's request to amend its answer to include flood protections plaintiffs had received from 20th-century infrastructure measures). In its 2020 decision, the court reasoned that that the 20th-century infrastructure caused environmental impacts not contemplated at the time of authorization or construction, while the 21st-century project required a reengineering of the river that created flood risks not previously contemplated. *Id.* at 422–23.

[126] *Ideker II*, 151 Fed. Cl. at 589.

[127] *Id.* at 570.

[128] *Id.* at 606. For example, the court set just compensation for the Ideker Farms property at 30% of total land value, or $3,150/acre ($3.7 million total), plus the cost of levee damage from 2010 flooding ($1 million). *Id.* at 601, 606.

An appeal, which is still pending as of the date of this report, raised several issues.[129] One issue was whether flood protection benefits from the 20th-century infrastructure was the appropriate baseline against which to gauge flooding associated with 21st-century infrastructure modifications or if instead flooding should be offset against the full suite of federal infrastructure measures, however dated.[130] The court also revisited whether just compensation was due for any of the 2011 flooding damages.

Considerations for Congress

This report describes cases that have involved hundreds of billions of dollars in claims seeking federal compensation for flooding damage. It is difficult to quantify these claims with precision because many do not result in actual recovery, as courts have applied various doctrines to limit that liability. That may, however, be changing, as claims over the past decade have increasingly turned toward the Takings Clause of the Fifth Amendment. Recognizing such takings claims in *Arkansas Game & Fish*, the Supreme Court asserted that its "modest" opinion "augurs no deluge of takings liability."[131] Claims such as those arising from Hurricane Harvey and Missouri River flooding are testing that assertion. If courts were to continue to allow an expanded legal basis for claims against the government for flood-related damages or compensation, the potential financial exposure—particularly for USACE—could require a substantial increase in appropriations.

The evolution in the type of claims that plaintiffs raise in flooding cases—from tort to takings—is significant. Tort liability against the United States is largely governed by statute and thus subject to Congress's control, while compensation for takings is required by the Constitution. Congress remains able to reconsider issues of federal immunity related to flood damage and flood control projects under both kinds of claims, but its potential field of action is greater in the tort context.

With respect to tort claims, it is within Congress's authority to define the scope of the statutory waiver of sovereign immunity provided by the FTCA or the scope of the statutory grant of immunity provided by the FCA. As the trial court observed regarding many of the Katrina claims notwithstanding USACE's "errors in judgment":

> When Congress grants immunity to the "sovereign" and that immunity is interpreted as it has been by the Supreme Court in *James* and *Central Green*, in essence, the King can do no wrong if the facts of the case compel the Court to apply that immunity. Here, the Court must apply this broad immunity based upon the facts of this case. Often, when the King can do no wrong, his subjects suffer the consequences. Such is the case here.[132]

Justice Stevens once called FCA immunity an "obsolete legislative remnant" and said that it was incumbent on Congress to decide "whether any part of this harsh immunity doctrine should be retained."[133] For example, Congress has the option of explicitly stating whether FCA immunity is

[129] U.S. Resp. & Reply Br., Ideker Farms Co. v. United States, No. 2021-1849, 2022 WL 992499 (Fed. Cir. Mar. 25, 2022); Reply Br. for Pls. & Cross Appellants, Ideker Farms Co. v. United States, No. 2021-1849, 2022 WL 1568459 (Fed. Cir. May 12, 2022).

[130] The trial court set the earlier 20th-century infrastructure projects as the baseline standard against which the 21st-century project-induced flooding should be compared, as opposed to setting the baseline at the river's more "natural" state prior to construction of the 20th-century infrastructure, *see* Ideker Farms, Inc. v. United States, 142 Fed. Cl. 222 (2019); *Ideker II*, 151 Fed. Cl. at 570; *but see St. Bernard Par. Gov't*, 887 F. 3d at 1354; *Milton*, 36 F. 4th at 1154 (mandating weighing the entirety of federal activities in weighing harms against flood control benefits and protections).

[131] *Ark. Game & Fish Comm'n*, 568 U.S. at 37.

[132] *In re* Katrina Canal Breaches Consol. Litig., 533 F. Supp. 2d 615, 638 (E.D. La. 2008).

[133] Hiersche v. United States, 503 U.S. 923, 926 (1992) (Stevens, J., respecting the denial of the petition for writ of certiorari).

limited to flood control *projects* or *activities*, whether immunity extends to any floodwaters passing through federal infrastructure, or any other criteria. Congress could also decide to repeal FCA immunity altogether or restrict its scope beyond that which courts have applied.

Amending FCA immunity could have implications for takings cases as well. The Federal Circuit has previously limited application of FCA immunity for takings claims on the basis that *after* passing the FCA with its immunity provision, Congress passed the Tucker Act authorizing takings claims. If Congress were to subsequently affirm or amend the FCA's immunity provision, this time with the Tucker Act in the legislative background, then a court might reconsider that rule, especially if Congress were to explicitly apply FCA immunity to claims brought under the Tucker Act. The Tucker Act, however, establishes the courts' jurisdiction to award just compensation that the Constitution itself provides. If Congress were to extend FCA immunity to Tucker Act claims, courts would still face consideration of whether and how other mechanisms allow a plaintiff to pursue the constitutional right to just compensation if the federal government takes private property.

As an alternative to limiting immunity associated with the taking of property through flooding, Congress could act to reduce federal exposure to claims. One option could be to change the scope of authorized activities by a federal agency. For example, Congress could reconsider the role of federal agencies in leading the construction or operation of flood-related projects, particularly those with benefits that primarily accrue at a local level or to a single state.[134] Another example could be expressly directing an agency to assess increased flooding risks to private property resulting from proposed or existing federal infrastructure.

If Congress wants a project to proceed notwithstanding flooding risks to private property, it could direct agencies to acquire flowage easements or other property interests as part of project authorizations and appropriations. The Birds Point floodway provides an example of such an approach. While USACE has an obligation to consider acquiring permanent or temporary easements (including a flowage easement) in support of a water resources development project, other agencies may take alternative approaches.[135] Even where authorized, federal acquisition of property interests may be constrained by availability of funds. For example, in the case of the Addicks and Barker Reservoirs, USACE decided that the cost of acquiring the full scope of flowage easements was too high to justify for an infrequent flooding event. Congress could defer to agencies to weigh this level of risk in light of appropriated funds, or it could alternatively provide additional appropriations and direct agencies to reduce litigation risk by taking steps to secure such easements or otherwise purchase property.

If federal exposure to liability in flooding situations increases due to changes in the case law, Congress may alternatively decide that such increased exposure is acceptable. In effect, Congress may prefer that the United States pay claims after a particular flood has occurred, as opposed to acquiring a property interest in anticipation of such a situation wherever it might occur. If Congress chooses not to act, the courts would sort out such claims on a case-by-case basis. Congress could consider offering other means of compensating a property owner, such as by providing disaster assistance or insurance. Another option could be to require enhanced risk disclosures to enable more informed decisions about property risks—whether for governmental agencies, Congress, or property owners themselves.

[134] Because the Fifth Amendment right to just compensation also applies to the states under the Fourteenth Amendment to the Constitution, shifting responsibility for the operation of flood control projects might also result in shifting liability for takings claims to state or local governments.

[135] *E.g.*, 33 U.SC. § 598a; 33 U.S.C. § 591; 33 U.S.C. § 701c-1. For USACE, easement or land acquisitions for completed projects or change to a project's scope may or may not require additional congressional authorization.

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