In the

United States Court of Appeals For the Seventh Circuit

No. 12-3800

STATE OF MICHIGAN, et al.,

Plaintiffs-Appellants,

and

GRAND TRAVERSE BAND OF OTTAWA AND CHIPPEWA INDIANS, Intervenor-Plaintiff-Appellant,

υ.

UNITED STATES ARMY CORPS OF ENGINEERS and METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO,

Defendants-Appellees,

and

CITY OF CHICAGO, et al.,

Intervenors-Defendants-Appellees.

Appeal from the United States District Court for the Northern District of Illinois, Eastern Division.
No. 10 C 4457 — John J. Tharp, Jr., Judge.

Argued January 22, 2014 — Decided July 14, 2014

Before WOOD, *Chief Judge*, and MANION and WILLIAMS, *Circuit Judges*.

WOOD, Chief Judge. Meddling with Mother Nature is not always a good idea, as the ongoing saga of the Asian carp illustrates. The unfortunate confluence of two interventions-the linkage of the Mississippi River system to the Great Lakes and the effort to control weeds in southern aquatic farms by importing Asian carp, a voracious nonnative fish—has led to a situation in which two particular species of carp have overwhelmed the Mississippi River and its tributaries and threaten to migrate into the Great Lakes. Once the carp reach one of the Lakes, they have reached all of them, thanks in part to the last Ice Age and in part to the Erie Canal and later measures to facilitate shipping between Lakes Huron and Erie and Lakes Erie and Ontario around Niagara Falls. See, *e.g.*, http://web2.geo.msu.edu/geogmich/ phy_feature.html (all websites cited in this opinion were last visited on July 14, 2014). For an interesting account of the construction of the Erie Canal and the Chicago Sanitary Canal, see Simon Winchester, THE MEN WHO UNITED THE STATES at 196–222 (2013). Adding locks and canals to the natural links between the Lakes opened the way for commercial navigation all the way to the Atlantic Ocean. It is enough for our purposes, however, to focus on the connections between the Mississippi system and the Lakes.

In this action, five states bordering the Great Lakes and an Indian tribe assert that the Asian carp either will soon invade, or perhaps already have invaded, the Great Lakes and that they are poised to inflict billions of dollars of damage on the ecosystem. Believing that the responsible units of government have failed in their task of protecting the Great Lakes, the plaintiffs ask us to step in and impose measures to ensure that the carp are forever blocked from the Lakes.

This problem did not develop overnight. Beginning in the early 20th century, state and federal authorities constructed a series of canals and channels that connect Lake Michigan with the Mississippi River. One part of that system is now called the Chicago Area Waterway System (CAWS). It has been vital to the growth and development of the Chicago region and the surrounding Midwest. In addition to reversing the flow of the Chicago River in order to carry Chicago's wastewater away from, rather than into, Lake Michigan, the CAWS also established a navigable link between two of the country's most important bodies of water. The CAWS is not the only place where the Mississippi basin and the Great Lakes intersect, but it is the one at issue in our case.

The other part of the problem dates from the 1970s, when aquatic farmers in the southern United States introduced bighead and silver Asian carp to their facilities in the hope that the fish would control unwanted plant growth. See U.S. Environmental Protection Agency, *Asian Carp Species*, http://yosemite.epa.gov/r10/ECOCOMM.NSF/Invasive+Speci es/Asian-Carp; National Park Service, *Asian Carp Overview*, http://www.nps.gov/miss/naturescience/ascarpover.htm. Flooding in the region, however, enabled the carp to move beyond the farms out into open freshwater systems, and ultimately to work their way up the Mississippi River to within six miles of Lake Michigan. See Fisheries and Oceans Canada, *Brief History of Asian Carp in North America and Related Initiatives in Canada*, http://www.dfo-mpo.gc.ca/media/ back-fiche/2012/hq-ac15-eng.htm. This is far from the first case in which neighboring states have complained about one aspect or another of the CAWS. Immediately after it was constructed, the State of Missouri sued Illinois to stop operations of the Chicago Sanitary and Ship Canal (a major component of the CAWS) because it would cause sewage to flow down the Mississippi River and into Missouri. See *Missouri v. Illinois*, 200 U.S. 496 (1906). That suit was unsuccessful, but in later years interstate disputes arose over the maximum rate at which Illinois could divert water from Lake Michigan into the CAWS. See, *e.g.*, *Wisconsin v. Illinois*, 449 U.S. 48 (1980); *Wisconsin v. Illinois*, 388 U.S. 426 (1967); *Wisconsin v. Illinois*, 311 U.S. 107 (1940); *Wisconsin v. Illinois*, 278 U.S. 367 (1929). The case before us presents yet another problem.

In response to the advance of the Asian carp up to the doorstep of the Great Lakes, the States of Michigan, Wisconsin, Minnesota, and Ohio, and the Commonwealth of Pennsylvania, initiated this lawsuit against the U.S. Army Corps of Engineers and the Metropolitan Water Reclamation District of Greater Chicago in an effort to compel action that would prevent the fish from crossing into Lake Michigan. The Grand Traverse Band of Ottawa and Chippewa Indians intervened as a plaintiff. (For convenience, we refer to all plaintiffs as the States, since the Tribe has associated itself with all of the States' arguments.) The States sought a preliminary injunction that would require the Corps and the District to take a number of aggressive interim measures to maximize the chances of preventing the spread of the carp. See Michigan v. U.S. Army Corps of Eng'rs (Asian Carp I), 667 F.3d 765 (2011). The district court denied that motion, and we affirmed, holding that the States had failed to prove that irreparable injury would occur before the litigation could be

resolved, given the measures being undertaken by the responsible agencies.

At that point proceedings resumed in the district court. After further consideration, it dismissed the action under Federal Rule of Civil Procedure 12(b)(6) for failure to state a claim. The States have now appealed from that final judgment. It is worth emphasizing that we give the plaintiffs the benefit of the doubt in this situation: "We construe the complaint in the light most favorable to the plaintiff, accepting as true all well-pleaded facts alleged, and drawing all possible inferences in [their] favor." *Tamayo v. Blagojevich*, 526 F.3d 1074, 1081 (7th Cir. 2008). Any facts that we mention should be understood in this light.

Since we last saw this case, the threat that the Asian carp pose to Lake Michigan has not diminished. As we did before, we proceed on the assumption that the risk of invasion is a serious one, and that the negative consequences that would result from the establishment of a breeding population in the Great Lakes would be great. Nonetheless, while our analysis differs in significant respects from that of the district court, we ultimately agree with its disposition.

We do not, in particular, adopt the district court's conclusion that the Corps and the District are "authorized" to operate a navigable waterway no matter what the environmental cost, nor that any such authorization would relieve them of the duty to try to stop the spread of the Asian carp. Instead, we find once again that the States have not alleged facts showing that the Corps and the District are operating the CAWS in a manner that is likely to allow the Asian carp to reach Lake Michigan. As we did before, we leave open the possibility of relief should there come a time when reliable facts show that the carp pose a more immediate threat to the Lakes, or when the Corps and the District slacken their efforts to prevent the passage of the Asian carp out into Lake Michigan.

Ι

The bighead and silver carp have not blended well with the native species they have encountered. To the contrary, the carp are rapacious eaters of plankton, algae, and other small organisms. Over the years, they have crowded out the native fish by destroying their food supply from the bottom up, stripping the rivers of the key source of food for other fish. (The carp are thus not apex predators that depend on smaller fish for food.) A fish kill conducted near St. Louis in 1999 showed that the Asian carp constituted over 95% of the biomass in the Mississippi at that place and time. See Great Lakes Fishery Commission, testimony of Dr. Michael J. Hansen, "The Asian Carp Threat to the Great Lakes," *available at* http://www.glfc.org/fishmgmt/Hansen_testimony_aisancarp. pdf.

The carp are big fish: silver carp can reach up to 60 pounds and bighead carp up to 100 pounds, although the average Asian carp weighs 30-40 pounds. *Id.* They can eat between 20% and 120% of their own body weight daily. And besides wreaking havoc on the Mississippi's ecosystem, the silver carp can be dangerous: when agitated (for example, by motorboats), the carp leap out of the water, threatening damage to recreational and commercial watercraft and injury to passengers on board.

The Corps and the District have attempted for more than a decade to address the growing threat to the Great Lakes posed by the advance of the carp. In 2002, the Corps began to operate a "Dispersal Barrier System," which is a series of electrically charged underwater cables meant to kill, shock, or stun fish that try to pass by them. The first barrier was built just north of the Lockport Lock and Dam in the CAWS. It was joined by a second barrier 1300 feet downstream in 2009, and a third barrier between the two in 2011. See U.S. Army Corps of Engineers, *Electric Barriers*, http://www.lrc.usace.army.mil/Missions/CivilWorksProjects/ ANSPortal/Barrier.aspx.

In 2009, silver carp were spotted in the Chicago Sanitary and Ship Canal, just south (away from the Lake) of the Lockport Lock and Dam. In November of that year, "environmental carp DNA" (eDNA), which is found by collecting water samples and testing them for the presence of genetic material emitted by the carp, was detected north (lakeward) of the barrier system. (The reliability of eDNA was a matter of some contention when we last considered this case, but for present purposes we accept the States' allegation that it indicates immediate presence of the carp.) In response, the Corps applied the fish poison rotenone near the barrier, and a dead bighead carp was removed from the space north of the Lockport Lock but south of the electrical barrier. The Corps again applied rotenone in May 2010 in the Calumet-Saganashkee (Cal-Sag) Channel, but it turned up no carp. The following month, however, a single bighead carp was recovered in Lake Calumet, well lakeward of the barrier and only six miles from Lake Michigan.

Since September 2010, the Asian Carp Regional Coordinating Committee—a large group of federal and state agencies (and some Canadian agencies) led by the White House

Council on Environmental Quality-has regularly monitored the CAWS for Asian carp and reported on its results. See U.S. Army Corps of Engineers, Great Lakes and MISSISSIPPI RIVER INTERBASIN STUDY REPORT (hereinafter 35 2014), available REPORT) (Jan. 6, at http://glmris.anl.gov/documents/docs/glmrisreport/GLMRIS _Report.pdf. Through April 2014, none of the Coordinating Committee's tests, which involve (among other things) a mix of electrofishing and contracting with commercial fishing crews, have discovered any bighead or silver carp lakeward of the barriers. See Sampling Results, Asian Carp Regional Coordinating Committee, http://www.asiancarp.us/sampling /results.htm, and reports linked therein.

Π

Convinced that these efforts were inadequate to address the problem, the States sued the Corps and the District in 2010; they named the Corps because it is responsible for structures controlling navigation on the CAWS, and the District because it is responsible for the structures that control water levels and water quality. The complaint raised claims under both the federal common law of public nuisance and the judicial review provisions of the Administrative Procedure Act (APA), 5 U.S.C. § 702, although when we last saw this case we noted that those claims were functionally the same. See Asian Carp I, 667 F.3d at 787. The States seek a permanent injunction requiring the Corps and the District to take all appropriate and necessary measures expeditiously to develop and implement plans to effect a hydrological separation between Lake Michigan and the Mississippi River Basin-that is, to construct a physical barrier preventing any water passage between them. They also wanted the court to

order the Corps to expedite a congressionally mandated study of options to prevent the spread of aquatic nuisance species between the Great Lakes and the Mississippi River. This study is known as the Great Lakes and Mississippi River Interbasin Study Report; the parties all call it the "GLMRIS Report," but for simplicity we will refer to it simply as "the Report" unless the context requires otherwise. See Water Resources Development Act of 2007, § 3062, Pub. L. No. 110-114, 121 Stat. 1041 (2007).

Worried that the threat of an Asian carp invasion is too pressing to await these developments, the States additionally sought a preliminary injunction requiring the Corps and the District to take a host of interim steps, including (1) closing all locks and sluice gates in the CAWS except as needed to protect public safety; (2) installing temporary netting at strategic locations; and (3) applying rotenone on a regular basis. The States' appeal of the district court's denial of that preliminary relief led to our opinion upholding the district court's decision in 2011. See Asian Carp I, 667 F.3d 765. We concluded that the requested injunction was unlikely to reduce significantly the risk that the carp would reach the Lake before a trial on the merits could be completed. In so ruling, we took into account both the substantial costs that such an injunction would impose on the region and the fact that the Asian Carp Regional Coordinating Committee and its member agencies are actively working to prevent the nuisance. *Id.* at 789-90.

We resolved several questions in *Asian Carp I* that remain relevant to the current appeal. First, we held that sovereign immunity did not bar this suit, as it falls within the waiver of sovereign immunity found in the APA at 5 U.S.C. § 702. See

Asian Carp I, 667 F.3d at 775–76. We also considered, without deciding, the separate question whether a federal-commonlaw public-nuisance claim can be stated against the federal government. This question more appropriately related to whether the States have stated a claim, we thought, and it was not necessary to reach that issue in order to affirm the denial of the requested preliminary injunction. Id. at 774. We then addressed the question whether Congress had displaced federal common law in this area by enacting statutes addressing navigable waters and aquatic nuisance species. Strictly speaking, we concluded, it had not. Id. at 777–79 (citing American Elec. Power Co. v. Connecticut, 131 S. Ct. 2527, 2537 (2011)). Nevertheless, we were unwilling to disregard entirely the substantial efforts that the Corps and the District (as well as the other involved agencies) are making. Even assuming that the States had demonstrated the necessary likelihood of success on the merits, we were not convinced that the case for a preliminary injunction had been made. Asian *Carp I* at 789. Not wanting to put the courts at cross-purposes with the agencies already working to combat the advance of the carp, we affirmed the denial of preliminary relief.

On remand, the district court granted the joint motion of the Corps and the District to dismiss the complaint for failure to state a claim upon which relief can be granted. See FED. R. CIV. P. 12(b)(6). The court held that the defendants could not have caused a public nuisance because "maintenance of the hydrologic connection between CAWS and Lake Michigan is not only lawful, it is also specifically authorized, and in fact required, by statute." It read the Rivers and Harbors Act, 33 U.S.C. § 401, to prevent the relief that the States seek. That statute requires that construction of any "bridge, causeway, dam, or dike" over any navigable body of water be approved by Congress, as well as by the Chief of Engineers of the Corps and the Secretary of the Army. 33 U.S.C. § 401. Because congressional approval of a plan is required before separation can be implemented, the court concluded, "the Corps' failure to effect that separation cannot be the proximate cause of the alleged nuisance." Although the court granted the States leave to file an amended complaint, they declined to do so. Accordingly, the court entered judgment in favor of the defendants.

Two intervening events have changed this case since we last saw it. First, in 2012 Congress passed the Moving Ahead for Progress in the 21st Century Act, Pub. L. No. 112-141, 126 Stat. 405 (2012) (hereinafter the "Progress Act"). Part of that statute requires the Corps to expedite completion of the Report—the one that the Corps originally had been ordered to prepare in the Water Resources Development Act of 2007, Pub. L. No. 110-114, 121 Stat. 1041 (2007). The Progress Act directs the Corps to address the possibility of hydrological separation and authorizes it to proceed "directly to preconstruction engineering and design" if the Secretary of the Army determines that the completed study shows that a project is justified. The statute imposed a February 6, 2014, deadline to complete the report.

The second development is the Corps's completion of the Report, which it released on January 6, 2014, two weeks before we heard oral argument. See SUMMARY OF THE GLMRIS REPORT, *available at* http://glmris.anl.gov/documents/docs/ glmrisreport/GLMRISSummaryReport.pdf. The Report presents eight alternative plans for preventing the spread of aquatic nuisance species between the Mississippi River Basin and the Great Lakes Basin. Six of these plans, it predicts, would stop the spread of the Asian carp within 25 years, which happens to be the projected time for their arrival at Lake Michigan. The Corps declined to make a recommendation among the alternatives. It took the position that "additional technical investigation, policy evaluation, NEPA [National Environmental Policy Act] analysis, site-specific detailed design, and public and state/agency reviews would need to be accomplished prior to the recommendation of a specific alternative." *Id.* at ES-4.

Two of the options identified in the Report—maintaining the status quo and using only "nonstructural" measures such as chemical control and netting-were projected to have no impact on the spread of the carp. Of the six remaining options, two involve complete hydrological separation of the Mississippi from Lake Michigan (one calls for the use of lakefront barriers; the other proposes barriers further away from the Lake in the CAWS and the Cal-Sag Channel); two involve partial hydrological separation but leave at least one of the five current CAWS pathways open; and two do not involve hydrological separation, but depend on additional locks, barriers, and sluice gates (one of those adds a "buffer" area between the controls where the Corps could respond to aquatic nuisance threats). The "cheapest" of the options that would prevent the spread of carp would require an estimated \$7.806 billion to complete. The plans involving hydrological separation are among the most expensive: the estimate for lakefront hydrological separation is \$18.389 billion, and for mid-system separation \$15.512 billion.

The Report also considers the effect that each plan would have first on the navigability, water quality, and ecosystems of the CAWS and Lake Michigan, and second on the District's ability to control flooding. The Corps predicts that the plans for hydrological separation would have a significant negative impact on water quality in Lake Michigan in the absence of additional curative measures; the plans would also affect water quality and the ecosystem in the CAWS, and they would prevent ships from moving from the Mississippi River tributaries to Lake Michigan.

We take judicial notice of the Report, as well as two other reports offered by the States: one on the efficacy of the electric barriers currently in use, see U.S. Army Corps of Engineers, Summary of Fish-Barge Interaction Research and Fixed Dual Frequency Identification Sonar (DIDSON) Sampling at the Electric Dispersal Barrier in Chicago Sanitary and Ship Canal, http://www.lrc.usace.army.mil/Portals/36/docs/projects/ans/ docs/Fish-Barge%20Interaction%20and%20DIDSON%20at %20electric%20barriers%20-%2012202013.pdf (DIDSON Report), and the other on the potential for Asian carp reproduction in the Great Lakes Basin, see U.S. Geological Survey, Hydraulic and Water-Quality Data Collection for the Investigation of Great Lakes Tributaries for Asian Carp Spawning and Egg-Transport Suitability, USGS SCIENTIFIC INVESTIGATIONS REPORT 2013-5106, http://pubs.usgs.gov/sir/2013/5106 (Spawning Report).

When the Report was released, we asked the parties to be prepared to discuss whether this case is now moot, in whole or in part. The States emphatically state that it is not, and we agree with them. Though they no longer need an order requiring the Corps to expedite completion of the Report, a number of important questions remain, including whether the Corps must make a recommendation to Congress from among the options laid out in the Report; whether only an option requiring hydrological separation will suffice; and whether the Corps and the District must begin to work toward hydrological separation.

Ш

This appeal takes us into the sometimes-murky area of federal common law. Despite the pronouncement in *Erie R*. *Co. v. Tompkins*, 304 U.S. 64, 78 (1938), that "[t]here is no federal general common law," enclaves of federal common law remain. One such enclave exists for cases dealing with "air and water in their ambient or interstate aspects" Illinois v. City of Milwaukee (Milwaukee I), 406 U.S. 91, 103 (1972). Environmental protection is an area "within the national legislative power' ... in which federal courts may fill in 'statutory interstices' and, if necessary, even 'fashion federal law.'" American Elec. Power Co. v. Connecticut, 131 S. Ct. 2527, 2535 (2011) (quoting Henry J. Friendly, In Praise of Erie—And of the New Federal Common Law, 39 N.Y.U. L. REV. 383, 421-22 (1964)). Federal courts look first to state law for this purpose, and even when borrowing the law of a particular State would be inappropriate, they are to remain mindful that federal courts do not have creative power akin to that vested in Congress. American Elec. Power, 131 S. Ct. at 2536. Federal common law also can be displaced "when Congress addresses a question previously governed by a decision rested on federal common law." Id. at 2537 (quoting City of Milwaukee v. Illinois (Milwaukee II), 451 U.S 304, 314 (1981) (quotation marks omitted)).

A public nuisance is "an unreasonable interference with a right common to the general public," usually involving a significant interference with public health, safety, peace, comfort, or convenience. RESTATEMENT (SECOND) OF TORTS

§ 821B. In Asian Carp I, we observed that this Restatement definition "has been a common reference point for courts considering cases arising under federal common law." 667 F.3d at 780. Many types of conduct have been found to be a public nuisance: for example, one state's introduction of typhoid into a river that runs off into another state, see Missouri v. Illinois, 180 U.S. 208, 241-43 (1901); the discharge of "noxious gas" from one state's copper works into the other state, see Georgia v. Tennessee Copper Co., 206 U.S. 230, 236 (1907); and changes to a state's drainage system that cause flooding in the farmland of another state, see North Dakota v. Minnesota, 263 U.S. 365, 374 (1923). States may bring a federal common law claim to vindicate not only their interests in state property or property held in public trusts, but also in a quasi-sovereign capacity to challenge activity "harmful to their citizens' health and welfare." American Elec. Power, 131 S. Ct. at 2536. And "public nuisance law, like common law generally, adapts to changing scientific and factual circumstances." Id. (citing Missouri v. Illinois, 200 U.S. 496, 522 (1906)).

Before we address whether the States have stated a public nuisance claim, we must resolve a question we left open in *Asian Carp I*: whether it is legally possible to state a public nuisance claim against an agency of the federal government. See 667 F.3d at 774. This is a different question from whether the government enjoys sovereign immunity from such claims. Sovereign immunity, when it exists, cuts off a plaintiff's ability to sue the government. Here we are concerned with the question whether the United States itself can create a nuisance, or if the law adopts the fiction that any action taken by the federal government is by definition in the public interest and therefore cannot be characterized as an unreasonable interference with a public right.

As we explained in Asian Carp I, the term "public nuisance" originally described a criminal act of infringing on the rights of the Crown. See *id.* at 773 (citing William L. Prosser, Private Action for Public Nuisance, 52 VA. L. REV. 997, 998 (1966)). While we have left far behind such hoary doctrines as the Divine Right of Kings and the notion that the Crown can do no wrong, the question remains whether it is logically inconsistent to hold the federal government to account for a public nuisance. It is accepted that conduct "fully authorized by statute, ordinance, or administrative regulation" cannot subject an actor to liability for a public nuisance, see RESTATEMENT (SECOND) OF TORTS § 821B cmt. f. If that is true, then how could action taken by the federal government endanger a public right? One might think that the federal common law doctrine of public nuisance exists only to create a uniform rule for resolving disputes between states in a way that comports with the national interest. On that view, the federal government is outside the scope of the doctrine, because its actions are by definition in the national interest.

There is another perspective, however, and we find it more persuasive. Federal public nuisance actions protect the interests of the public against harms created by an actor's conduct that impinges on a public right. Whether such harm is caused by a state or federal entity bears little relevance to the doctrine's purpose, which is to protect the endangered right. And though the federal government is always at liberty to define what constitutes an *unreasonable* interference with a public right through legislation, the doctrine already

accounts for this by contemplating displacement of federal common law when Congress has spoken directly to the question at issue. See American Elec. Power, 131 S. Ct. at 2537. Indeed, the most that would happen if we were to accept the idea that the government cannot create a public nuisance is that the District would be sued alone, even though both entities have contributed to the same alleged infringement on a public right. For reasons including the limited scope of their delegated authority and the possibility of agency capture, we have no interest in sustaining a fiction that executive agencies' undertakings so uniformly reflect the general interest of the public that they should be impervious to public nuisance liability. See, e.g., David Freeman Engstrom, Agencies as Litigation Gatekeepers, 123 YALE L.J. 616, 663 (2013) (explaining general concerns about agencies' abilities to act in welfare-maximizing ways and avoid capture). We note as well that the sweeping rule advocated by the Corps is inconsistent with the recognition in statutes including the APA and the Federal Tort Claims Act, 28 U.S.C. § 1346(b), that the United States might indeed act inconsistently with public rights.

Holding that federal agencies can be sued for creating a public nuisance is consistent with the rule that actions authorized by statute or regulation do not give rise to nuisance liability. In this connection, it is important to distinguish between legislative and executive functions. When Congress passes a statute, it weighs the competing public interests that would be served. Activities commanded or authorized by that statute reflect the public interest and so cannot be *unreasonable* intrusions on a public right. Quasi-legislative agency action is similar; agency rules promulgated pursuant to congressional delegation enjoy the same presumption that they

reflect the public interest. By contrast, agency action that reflects only the agency's choice of a particular course of action to implement a policy may or may not be consistent with the underlying statute and regulations. The Restatement reflects this distinction when it recognizes that a "statute, ordinance, or administrative regulation" may authorize action, rather than making the bolder assertion that *any* action taken by the government cannot create a public nuisance. See RESTATEMENT (SECOND) OF TORTS § 821B cmt. f.

Federal agencies have appeared as defendants in public nuisance suits before. In American Electric Power, the Tennessee Valley Authority was among the entities sued for causing an alleged public nuisance with its substantial carbon dioxide emissions. See 131 S. Ct. at 2534. Middlesex County Sewerage Authority v. National Sea Clammers Association, 453 U.S. 1, 4 n.3 (1981), involved both the Environmental Protection Agency and the Army Corps of Engineers. In both of those cases the Supreme Court held that the suits could not proceed on other grounds, and so the Court had no occasion to address the federal government's appearance as a defendant. It is hard to make much of this silence, but to the extent it means anything, it suggests that the Court saw no sweeping, easy-to-apply rule that would exempt the entire federal government, in all of its manifestations, from liability under the federal common law of public nuisance. We conclude, in summary, that the Corps can be held to account if liability can otherwise be established, and we thus turn to the main event: whether the States have stated a claim.

IV

The district court, after determining that the only injunction that would satisfy the States would be one requiring the immediate hydrological separation of the Mississippi River system from Lake Michigan by the placement of a permanent barrier to navigation in the CAWS, held that they had failed to state a public nuisance claim. It read the applicable statutes not just to authorize, but to require, the defendants' operation of the CAWS as a navigable waterway. The Corps and the District amplify this argument before us, pointing to a series of statutes that they claim add up to a congressional mandate to keep the waterway open, no matter the cost.

The defendants' argument reaches back to the waterway's infancy. In a report on the initial allocation of federal funds to the project, the Chief of Engineers wrote that the waterway should provide "free public ... navigation." S. Doc. No. 71-126, at 5 (1930). Congress adopted the report's recommendations for the construction in the Rivers and Harbors Act of 1930, 46 Stat. 918, which required the project to use the smallest flow of water possible "in the development of a commercially useful waterway." *Id.* at 929. Later, in the Rivers and Harbors Act of 1946, Congress adopted another report of the Chief of Engineers that recommended construction of "a lock of suitable dimensions for barge *navigation.*" H.R. Doc. No. 79-677, at 52 (1946) (emphasis added).

This district court did not rely on these statutes, and for good reason—they deal with construction specifications, not with an "authorization" to run the CAWS in a way that would allow an invasive species not yet introduced to the United States to reach Lake Michigan more than half a century later. The statutes reflect the obvious point that Congress considered navigation when it funded construction of structures on the CAWS, and that it accepted the Corps's advice. As the States point out, the quote that defendants culled from the Engineer's Report that preceded the 1930 Act was taken out of context. In isolation it could be read as an expression of enduring policy, but in context it is apparent that it was aimed at getting the state of Illinois to renounce any future interest in blocking or charging fees on the waterway. See S. Doc. No. 71-126 at 5.

The district court also relied on two appropriations acts from the early 1980s, as well as the original Rivers and Harbors Act (codified at 33 U.S.C. § 401), which forbids construction of a dam in a navigable waterway without congressional approval. In the Energy and Water Development Appropriations Act of December 4, 1981, Pub. L. No. 97-88, 95 Stat. 1135, Congress provided that "[f]unds herein or hereinafter made available to the Corps of Engineers–Civil for operation and maintenance of the Illinois Waterway shall be available to operate and maintain the Chicago Sanitary and Ship Canal portion of the Waterway in the interest of navigation." The Supplemental Appropriations Act of July 30, 1983, Pub. L. No. 98-63, 97 Stat. 301, clarified that the appropriations provision in the 1981 Act "pertaining to maintenance and operation of the Chicago Sanitary and Ship Canal of the Illinois Waterway in the interest of navigation includes the Control Structure and Lock in the Chicago River, and other facilities as are necessary to sustain through navigation from Chicago Harbor on Lake Michigan to Lockport on the Des Plaines River." The court thought that these appropriations acts spelled out a "duty to operate and maintain the CAWS in the interests of navigation."

But none of the statutes just mentioned *requires* the Corps to keep the CAWS open for navigation at all times and under all circumstances. Congress has expressed its intent that the CAWS be operated in the interest of navigation. When decisions must be made, this implies, the Corps must try to facilitate navigation; that is all. Even the original Rivers and Harbors Act cannot fairly be understood as a mandate to force the waterway to remain open to navigation even if there is an oil spill, or if the waters have become contaminated with some kind of noxious bacteria. That Act applies only to the construction of new dams, and the Corps could prevent all navigation in the CAWS without transgressing any command in that statute simply by closing all of its existing locks.

Turning to the argument that keeping the waterway open for navigation is "fully authorized," the Corps and the District err by blurring the distinction between the actions they are authorized to undertake and the possibly unlawful consequences of their acts. We can assume that the statutes on which they rely authorize them to create and maintain a navigable waterway between the Mississippi River and Lake Michigan. If the States' complaint alleged that the existence of a navigable waterway between the River and Lake was itself a nuisance, their claim indeed would be foreclosed by the "fully authorized" exception. But the States' allegation is not that a waterway *qua* waterway is a nuisance. Their claim is that the nuisance arises because the Corps and the District have together made it possible for the Asian carp to pass from the Mississippi to the Great Lakes. Just as a speed limit of 65 does not authorize a highway user to rear-end the stopped car in front of her during a traffic jam, the authority to run a navigable waterway does not authorize the Corps to permit the passage of invasive species to a body of water that would suffer severe adverse consequences as a result.

Some courts require that the specific action causing the nuisance be unequivocally authorized by statute in order to escape nuisance liability. See *Varjabedian v. City of Madera*, 572 P.2d 43, 47 (Cal. 1977). For example, even though an ordinance might permit the construction of a sewage treatment plant in a city, the foul odors emitted by the plant could still constitute a nuisance for nearby homeowners. *Id.* at 46–47. We need not decide whether federal common law demands such a high degree of specificity to trigger the "fully authorized" exception. It is enough for present purposes that the congressional legislation at issue does not even implicitly touch on the problem of invasive species.

The issue is muddled because the States drafted their complaint with the ultimate goal of attaining hydrological separation of the waterways. At some point, the Corps's inability to effect hydrological separation on its own under the Rivers and Harbors Act became confused with the Corps's authorization to cause an alleged nuisance. If, in an alternate universe, the States were satisfied that something short of hydrological separation would suffice to abate the nuisance and the relief they requested would not significantly interfere with navigation, it would be easy to see that the statutes relied upon by defendants and the district court would not "authorize" the agencies to allow the passage of Asian carp to Lake Michigan. By the Corps's own admission, there may be methods of combating the carp's advance that do not involve hydrological separation; this is the premise of two of the alternatives for combating aquatic nuisance species that it lays out in the Report. See REPORT 103-33. The "fully authorized" exception exempts a defendant from substantive liability for its alleged nuisance; it does not affect the form of relief after liability has been established. Once that is understood, it follows that the Corps's duty to operate a navigable waterway does not "fully authorize" it to create the nuisance alleged in the States' complaint.

V

The question remains whether any other ground in the record supports the district court's conclusion that the States' complaint had to be dismissed under Rule 12(b)(6). Our review is *de novo*, and so we now consider whether the facts the States allege plausibly demonstrate that the defendants are causing, or will cause, a public nuisance.

Again, a public nuisance is a substantial and unreasonable interference with a right common to the general public. RESTATEMENT (SECOND) OF TORTS § 821B. For a number of reasons, some of which we have just reviewed, the operation of a manmade navigable waterway by itself is not a public nuisance. The States recognize this: rather than asserting that the CAWS itself is a public nuisance, they allege that the *manner* in which defendants are operating the CAWS creates a public nuisance. We look, therefore, at what the complaint asserts on the latter point.

The manner of operation involves more than the maintenance of a manmade waterway between the Mississippi River and Lake Michigan. It also involves the steps that the Corps is taking and has already taken to prevent the carp from passing through the CAWS to Lake Michigan, including the presence of the electronic barriers, the regular monitoring activity, installation of screens on sluice gates, and the application of rotenone when a potential threat is spotted. The ongoing effort on the part of the Corps along with many other actors to craft a plan to combat the eventual migration of the carp to Lake Michigan is yet another aspect of these operations. The issuance of the Report was an important step in that effort, and the Corps is committed to pursuing whichever protective plan is selected. Even taking the States' allegations as true, the defendants have been diligent in their efforts to operate a waterway that blocks the passage of Asian carp to Lake Michigan.

At the time the complaint was filed, the States alleged that an Asian carp had twice been discovered in areas lakeward of the electrical barriers—a bighead carp in December 2009 north of the Lockport Lock, and another bighead carp in Lake Calumet in June 2010. The complaint also alleged that carp eDNA was once discovered on the wrong side of the Lockport Lock. The complaint noted that the Corps is operating two electrical barriers to prevent fish passage north of the Lockport Dam, and that it has applied rotenone twice—once when it had to shut down an electrical barrier for maintenance in December 2009, and again in May 2010 on a section of the Cal-Sag Channel.

Since that time, the third barrier (Barrier IIB) has become operational, and no new allegations of Asian carp appearing in the CAWS have arisen. In the Report, the Corps predicts that if no extra measures are taken, there is a "medium" risk of Asian carp establishing themselves in the Great Lakes within 25 years. (This apparently means that establishment is likely but not certain, see REPORT 58.) The Corps believes there is a low risk of invasion before that. See REPORT 192. In addition, the States provided us with two reports. One, written by the Corps, explains that barges may generate water flow that pushes certain fish beyond the electrical barrier (and that fish smaller than four inches may be able to swim through), but it disclaims any foreseeable threat from Asian carp because of this. See DIDSON Report, *supra* at 13. The other comes from the U.S. Geological Survey. It indicates that tributary waters to the Great Lakes could serve as spawning grounds for the carp (which need fast-flowing waters to spawn in sufficient numbers to establish a sustainable population). This indicates that the carp could establish themselves in the Great Lakes if they get that far. See Spawning Report, *supra* at 13.

In the final analysis, the States' complaint does not plausibly allege that the Corps and the District are creating a current or imminent public nuisance by their manner of operating the CAWS. Even on the assumption (favorable to the States) that the carp are advancing toward the CAWS and will establish a sustainable population if they reach Lake Michigan, none of the present allegations tends to show that the Corps's current method of operating the CAWS will permit the Asian carp to pass. There is a notable lack of factual allegations that Asian carp are passing or are about to pass the barriers that the Corps has established, and the complaint does not plausibly allege that the Corps cannot or will not respond to more urgent threats if and when they arise. To the contrary, the allegations tend to show that the Corps is taking its stewardship over the CAWS and the carp problem seriously.

We offer several final comments about this case. The States' complaint would require a court to direct the Corps to work toward implementing one *particular* solution to the threat of the Asian carp—hydrological separation. But we know from the Report that the Corps is making diligent efforts to find the solution best suited to accommodating the

competing concerns of stopping the passage of the fish and preserving the publicly beneficial uses of the CAWS. A host of competing concerns (water quality, navigation, public enjoyment, cost) all must be weighed. We know also that there is no quick fix here. Under these conditions, it would take an unusually strong showing to meet the requirements for equitable relief. The complaint does not present facts that, if believed, would show that hydrological separation is the *only* way to prevent the spread of the Asian carp. Cognizant of our relative expertise as compared with that of the responsible executive agencies, we are reluctant to interfere with the ongoing process to determine the best alternative for keeping the Asian carp out of the Great Lakes.

We do not want to be understood as taking this problem lightly. We have proceeded throughout on the assumption that the introduction of Asian carp to Lake Michigan would pose a grave threat to the public's use and enjoyment of the Great Lakes. As we said in *Asian Carp I*, if new facts develop, the States are free to return to court based on those changed circumstances. Our decision pertains only to the complaint that is before us.

We also want to be careful that we are not misunderstood. The Corps and the District implied in their brief, and again at oral argument, that they could not have "caused" the nuisance because the fish are swimming lakeward of their own accord, without any human intervention. We dismissed this argument at the preliminary injunction stage, explaining that the defendants would "bear responsibility for nuisances caused by their operation of a manmade waterway between the Great Lakes and Mississippi watersheds." *Asian Carp I*, 667 F.3d at 771. We reiterate that conclusion today. Our decision does not depend on the fact that the Asian carp are advancing upstream of their own volition. It would be enough if the Corps and the District maintained the CAWS in a way that allowed Asian carp to swim through to Lake Michigan. It is the defendants' apparent diligence, rather than their claimed helplessness, that is key to our holding today.

VI

The district court also held that the States had not stated a claim because they demanded relief that a federal court could not provide. The States' complaint makes clear their belief that nothing short of hydrological separation will prevent the spread of Asian carp from the Mississippi to the Great Lakes. In that connection, we note that at first glance the Rivers and Harbors Act seems to foreclose the possibility of a court's issuing an injunction requiring the Corps immediately to build a structure separating the waterways. The Act provides:

It shall not be lawful to construct or commence the construction of any bridge, causeway, dam, or dike over or in any port, roadstead, haven, harbor, canal, navigable river, or other navigable water of the United States until the consent of Congress to the building of such structures shall have been obtained and until the plans for ... the dam or dike shall have been submitted to and approved by the Chief of Engineers and Secretary of the Army.

33 U.S.C. § 401. The idea behind this portion of the Act was to prevent unauthorized interference with navigation in interstate or international waters, and so it makes sense to read the statute to cover the kind of hydrological barrier that the States seek. *Cf. Lake Shore & M.S. Ry. Co. v. Ohio*, 165 U.S. 365, 369 (1897) (explaining purpose of the Act was to prevent structures from "interfering with commerce"). A court could not direct the Corps to build a dam in contravention of the Act, because "[c]ourts of equity can no more disregard statutory and constitutional requirements and provisions than courts of law." *Hedges v. Dixon County*, 150 U.S. 182, 192 (1893).

That said, there is a subtle difference between what the States want in practice and what they demand in this lawsuit. Perhaps with the Act in mind, their complaint is careful not to ask for the barrier itself. Instead, they request an injunction requiring the Corps and the District to take "all appropriate and necessary measures to expeditiously develop and implement plans to permanently and physically separate ... [the waterways]." Such an injunction might require the Corps by a specified deadline to choose among the alternatives in the Report for stopping the carp (and specifically to choose one of the alternatives involving hydrological separation), and then promptly to seek congressional approval to implement that plan. This position reflects the States' belief that absent some action by the Corps, Congress is unlikely to solve this problem on its own. Congress appears to be awaiting the Corps's decision.

An injunction requiring the Corps to exercise its discretion in favor of a certain plan and essentially to lobby Congress to adopt and provide funds for that plan, would be an extraordinary and likely inappropriate use of a federal court's equitable powers. Drafting and enforcing such an injunction would be impracticable. See RESTATEMENT (SECOND) OF TORTS § 943 cmt. A; see also FED. R. CIV. P. 65 (d)(1)(C). It also realistically might not provide any relief to the States, because its effectiveness would depend entirely on the independent workings of another branch of the federal government.

To the extent the States believe that the Corps has failed to live up to its statutory duties, they may have other remedies. They have argued that the Corps should have used the Report to make *recommendations* as to which measures Congress should adopt to combat the Asian carp, rather than offering only alternative measures for stopping the carp's progress. While they do not amplify on why they think that the statute requires this, such an allegation (if properly pleaded) could form the basis of a claim for judicial review of administrative action under 5 U.S.C. § 702 (particularly now that the March 3, 2014, comment deadline for the Report has passed and the Report has become a "final agency action" for the purposes of review, see 5 U.S.C. § 704). Alternatively, if the Corps stalls on progress toward a solution to the threat of the Asian carp reaching the Great Lakes, there could come a time when the States might be able to state a claim for review of agency action "unlawfully withheld or unreasonably delayed" within the meaning of 5 U.S.C. § 706(1). We express no opinion as to the merits of these potential claims, which are not before us.

We conclude where we started. We accept for purposes of this appeal that immeasurable environmental and economic damage would be caused not only to Lake Michigan, but to the Great Lakes as a whole, if the Asian carp establish breeding populations there. But this point is uncontested, as the active efforts of the Asian Carp Regional Coordinating Committee demonstrate. The Corps and the District in particular are engaged in intensive efforts to prevent the carp from reaching the Great Lakes, and there is a great deal of evidence that indicates they have succeeded thus far in doing so. Under these circumstances, we hold that the States have failed to state a claim upon which relief can be granted, either under a public nuisance theory or under the APA. We therefore AFFIRM the judgment of the district court.

30