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Wetlands Conservation in the United States after *Sackett v. Environmental Protection Agency*: Patchwork Protection of a Valued Resource

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Abstract

In *Sackett v. Environmental Protection Agency* (Sackett v. EPA*,* 2023), the Supreme Court declared that many of the country's remaining wetlands are not "waters of the United States," which excludes them from protection under the federal Clean Water Act. Yet the excluded wetlands are critical for improved water quality, flood control, wildlife habitat, and other valuable functions. The Court's decision left their protection to the individual states. Since *Sackett*, wetlands conservation in the United States has become a patchwork affair. Many states' wetlands, without federal protection, are at risk from agriculture and development; further loss is unsustainable. This article argues that wetlands must be protected at the federal level through a revised Clean Water Act, which will be difficult to achieve. Fortunately, there are other ways to protect wetlands without federal support, and citizens have a few options to get involved.

Introduction

The Supreme Court's recent decision in *Sackett v. EPA* removed federal protection from over one-half of America's remaining wetlands (Sackett v. EPA, 2023; Hovorka, 2023). The Court declared that these wetlands are not "waters of the United States," which excludes them from protection under the federal Clean Water Act (CWA) (CWA, 1972). Yet the excluded wetlands are critical for improved water quality, flood control, wildlife habitat, and other valuable functions (UT School of Natural Resources, 2024). The Court's decision suddenly left their conservation to the individual states (Sackett v. EPA, 2023). Since *Sackett*, wetlands conservation in the United States has become a patchwork affair, with some states extending protection to those wetlands that are no longer federally protected under the CWA, while other states fail to protect those wetlands that are no longer federally protected (Environmental Integrity Project, 2024).

Policy experts have discussed alternative means of ensuring conservation of those wetlands excluded from federal protection under the CWA, including increased funding of conservation programs administered by the Natural Resources Conservation Service

(NRCS), United States Department of Agriculture (Mott, 2023). The NRCS wetlands easement program is popular with farmers and ranchers and is considered an effective means of conserving wetlands on private lands (Mott, 2023; Hovorka, 2023). In addition, policy experts have suggested ways of strengthening the “swampbuster” provision in the federal Farm Bill, which aids in preserving existing wetlands on farmlands (Hovorka, 2018, 2023). According to experts, however, genuinely effective wetlands conservation in the United States is possible only by congressional action to pass a revised CWA that clearly specifies the waters, including wetlands, protected by the Act (Mott, 2023). We cannot expect that the U.S. Congress will be able to pass such a bill, which would require bipartisan support, anytime soon. It seems that, for the near future, we are stuck with the unfortunate consequences of the *Sackett* decision.

This article will discuss wetlands conservation in the United States after *Sackett v. EPA*, which has indeed become a patchwork or piecemeal affair. The author will briefly consider suggested alternative means of preserving those wetlands that have been denied federal protection under CWA. This article will emphasize that wetlands are highly valued in America. State agencies across the country acknowledge the essential functions wetlands provide, and every state has in place regulations ensuring some degree of wetlands conservation. In addition, many non-profit conservation organizations (NGOs), national and local, are dedicated to the conservation and restoration of wetlands. These organizations carry on their mission of educating the public about the value of wetlands, and they lobby for regulations that more effectively protect wetlands. Wetlands are highly valued in America, and they are protected, to a greater and lesser extent, through efforts by federal and state agencies, non-profit conservation organizations, and private landowners.

After *Sackett*, states have greater flexibility to balance wetlands conservation with meeting other needs, for example, the need for housing and other development. In some states, stakeholders have expressed the need to reach a compromise between wetlands conservation and economic development (Heim, 2024). It can be argued that, with *Sackett*, the Supreme Court appropriately left the extent of wetlands conservation up to the states (Harvard Law Review, 2023). State legislature now decides the extent to which to protect those wetlands that are no longer federally protected under CWA. Their decisions reflect the values of state residents, which may seem a more flexible and democratic approach.

The problem is that this approach is ineffective. In many states, the *Sackett* decision leaves those wetlands denied federal protection vulnerable to further losses to agriculture and urban development, and we have already reached the point that we cannot lose more wetlands (Ramirez-Franco, 2023). There are indeed advantages to leaving the extent of wetlands conservation to the states, but considering the vital functions all wetlands provide, and the degree to which they are being lost, wetlands must be protected at the federal level through a revised CWA (Mott, 2023). This will be difficult to achieve. Fortunately, alternative means are available for preserving those wetlands that have been denied federal protection, and citizens who wish to be involved have several options.

Wetlands Conservation under the Clean Water Act

The federal Clean Water Act of 1972 begins with this statement of goals and policy:

> The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. . .. [I]t is the national goal that the discharge of pollutants into navigable waters be eliminated by 1985. . .. It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water resources, and to consult with the Administrator in the exercise of his authority under this Act (CWA, 1972).

The Act defines "pollutant" in broad terms:

> The term ''pollutant'' means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water (CWA, 1972).

An announced goal of the CWA is to drop the discharge of pollutants into "the nation's waters," including dredged and fill material, such as rock, sand, and dirt (CWA, 1972). The Act directs the federal Environmental Protection Agency (EPA) to regulate the discharge of a wide range of pollutants into the nation's waters, yet, as the Act mandates, the states implement the regulation of pollutants on a day-to-day basis (CWA, 1972; Hu, 2024). The Act directs the states to enforce their own water quality standards, based on limits specified by the EPA, and requires that the EPA review and approve the proposed state standards. The CWA, section 404, charges the U.S. Army Corps of Engineers with regulating the discharge of, specifically, dredged and fill material into the nation's waters (Army Corps, 2022; Hu, 2024).

A major difficulty, however, is that the CWA does not make clear how far the Act extends. Again, an announced goal of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters," and to drop the discharge of pollutants into "the navigable waters" (CWA, 1972). The Act later defines "navigable waters" as "waters of the United States" (CWA, 1972). Navigable waters (large lakes and rivers) are clearly included within "waters of the United States" and are protected under the CWA. Are wetlands protected under the Act? In its history, the CWA has been interpreted as applying quite broadly to surface waters of the United States, including wetlands, yet the Act has also been interpreted as applying more narrowly. The party controlling the Executive Branch in Washington, D.C. plays a key role.

In 2015, with Barack Obama as President, the EPA and U.S. Army Corps of Engineers issued the Clean Water Rule, which clearly extended CWA protection to wetlands

(Gatz, 2018). The Clean Water Rule reflected these agencies' experience and understanding of the science, and reflected, as well, two earlier Supreme Court decisions in which the justices discuss how to interpret "waters of the United States." Briefly, the Clean Water Rule granted CWA protection to several categories of waters, including navigable waters as traditionally understood (large lakes and rivers), interstate waters, and territorial seas (Gatz, 2018). The rule extended CWA protection to tributaries of these waters. Also protected were "adjacent waters," defined within the rule as those waters "bordering, contiguous, or neighboring" the traditional navigable waters, tributaries, and other protected waters. The rule defined "neighboring" as located within 100 feet of the "ordinary high-water mark" of a traditional navigable water or other protected water, or as located in the 100-year floodplain and within 1500 feet of a traditional navigable water or other protected water (Gatz, 2018).[1]

The Clean Water Rule also extended CWA protection on a case-by-case basis (Gatz, 2018). A wetland, stream, or other water was protected if there existed a "significant nexus," or significant connection, between that water and a downstream navigable water, interstate water, or territorial sea. "Significant nexus" was understood in terms of a hydrological/ecological connection. According to the preface of the Clean Water Rule,

> Waters are "waters of the United States," if they, either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of traditionally navigable waters, interstate waters, or the territorial seas" (Army Corps and EPA, 2015).

A wetland, stream, or other water was protected under the CWA if it satisfied this Significant Nexus Standard. The Clean Water Rule specified that certain "similarly situated waters," including prairie pothole wetlands, western vernal pools, and Texas coastal prairie wetlands, are to be "combined for . . . a significant nexus analysis" (Army Corps and EPA, 2015).

The 2015 Clean Water Rule was highly controversial (Gatz, 2018). A major problem, according to critics, was that, apparently, by this rule virtually every wetland was protected under the CWA, since, in combination with "similarly situated waters," virtually every wetland can be claimed to be hydrologically/ecologically connected to a downstream protected water. The problem, according to critics, was that the Clean Water Rule extended CWA protection too far, bringing under protection isolated, ephemeral (temporary) wetlands and ephemeral streams that clearly do not call for protection. In 2019, under the Trump Administration, the EPA and Army Corps repealed the Clean Water Rule, and in 2020 they issued the Navigable Waters Protection Rule (EPA and Army Corps, 2020).

The Navigable Waters Protection Rule (NWPR) dropped evaluating waters for CWA protection on a case-by-case basis, and, correspondingly, dropped use of the Significant Nexus Standard (EPA and Army Corps, 2020). The NWPR specified that, to be protected, a wetland must adjoin or about a traditional navigable water, tributary, or other protected water. To be protected, a wetland could be separated from a protected

water only by a natural berm or bank, or by a permeable artificial barrier such as a dike, levee, or road that has culverts or gates. A wetland separated from protected water by an artificial barrier that did not allow a surface hydrological connection was not protected under the CWA. A wetland that was further removed, and did not adjoin or about protected water, was not protected. The NWPR was also highly controversial. Critics were concerned that the rule did not support the integrity of the nation's waters (Bowers, 2021). In response to a lawsuit, in 2021 a federal judge declared the NWPR illegal.

The Supreme Court's Decision in *Sackett v. EPA*

In earlier Supreme Court decisions, the Court did not arrive at a definitive understanding of the scope of the CWA (Sackett v. EPA, 2023). In contrast, in *Sackett v. EPA*, a 5 to 4 majority adopted a definitive and narrow understanding, severely restricting wetlands protection under the Act. Most of the Court in *Sackett* adopted the view that a wetland is included in "waters of the United States," and so is protected under the CWA, only if it has a continuous surface connection to a lake, river, or other water protected under the Act in its own right (Sackett v. EPA, 2023). Most of the Court agreed that, following the CWA, a wetland "adjacent" to a protected water is protected under the Act. Yet the majority interpreted "adjacent" narrowly, as being continuously connected at the surface to the protected water. There can be no clear demarcation between the wetland in question and the protected water.[2] By this understanding, a wetland that is separated from a protected water by a natural berm or bank, or by a permeable artificial barrier such as a dike, levee, or road (with culverts or gates), is not considered among the "waters of the United States" and is not protected under the CWA.

Writing for the majority, Justice Samuel Alito provides several arguments to show that "adjacent" cannot be understood more broadly (Sackett v. EPA, 2023). He argues, for example, that an isolated wetland, one not continuously connected at the surface to a lake, river, or other traditionally understood "water," cannot reasonably be considered a "water" and so cannot reasonably be considered a "water of the United States." Appealing to dictionary definitions, he adopts a narrow interpretation of "water" that extends to lakes, rivers, oceans, etc., but not to isolated wetlands (Sackett v. EPA, 2023).

Justice Brett Kavanaugh joined the liberal members of the Court in opposing the majority's narrow view of the extent of wetlands protection under the CWA (Sackett v. EPA, 2023). Kavanaugh and other justices argued that the Court should interpret "adjacent" following this word's accepted meaning in everyday society: as being close to. In *Sackett v. EPA*, Justice Kavanaugh writes:

> In my view, the Court's "continuous surface connection" test departs from the statutory text, from 45 years of consistent agency practice, and from this Court's precedents. The Court's test narrows the Clean Water Act's coverage of "adjacent" wetlands to mean only "adjoining" wetlands. But "adjacent" and "adjoining" have distinct meanings: Adjoining wetlands are contiguous to or

> bordering a covered water, whereas adjacent wetlands include both (i) those wetlands contiguous to or bordering a covered water, *and* (ii) wetlands separated from a covered water only by a man-made dike or barrier, natural river berm, beach dune, or the like. By narrowing the Act's coverage of wetlands to only adjoining wetlands, the Court's new test will leave some long-regulated adjacent wetlands no longer covered by the Clean Water Act, with significant repercussions for water quality and flood control throughout the United States. (Sackett v. EPA, 2023)

Justice Elena Kagan writes, in agreement with Kavanaugh:

> [I]n ordinary language, one thing is adjacent to another not only when it is touching, but also when it is nearby. . .. (quoting multiple dictionaries). So, for example, one house is adjacent to another even when a stretch of grass and a picket fence separate the two. As applied here, that means—as the EPA and Army Corps have recognized for almost half a century—that a wetland comes within the Act if (i) it is "contiguous to or bordering a covered water, *or* (ii) if [it] is separated from a covered water only by a man-made dike or barrier, natural river berm, beach dune, or the like." . . . In excluding all the wetlands in category (ii), the majority's "'continuous surface connection' test disregards the ordinary meaning of 'adjacent.'" . . . The majority thus alters—more precisely, narrows the scope of—the statute Congress drafted. (Sackett v. EPA)

In response to the *Sackett* decision, the EPA and U.S. Army Corps of Engineers issued new regulations that reflect the Supreme Court's narrow understanding of the scope of CWA protection (EPA, 2023a). Within these agencies' 2023 Conforming Rule, the Significant Nexus Standard is not included as a test of protected waters (EPA, 2023b). In accordance with the agencies' new rule, "waters of the United States" include: (i) waters that are "[c]urrently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce," (ii) interstate waters, (iii) territorial seas, and (iv) relatively permanent tributaries of these waters.[3] A wetland is protected only if it has a continuous surface connection to a protected water (EPA, 2023b, 2025). As the agencies understand "continuous surface connection," it is "difficult to determine where the [protected] water ends and wetland begins" (Army Corps and EPA, 2025).[4] Isolated and ephemeral wetlands, and ephemeral streams, are no longer protected under the CWA.

Wetlands Conservation after *Sackett*

Suggested Alternative Means of Protecting Isolated Wetlands

Policy experts have discussed alternative means of protecting those wetlands denied federal protection in the *Sackett* decision, which constitute, it has been estimated, over one-half the remaining wetlands in the United States (Mott, 2023; Hovorka, 2023). Experts emphasize the need to adopt, in the U.S. Congress, a revised CWA that

provides the needed federal protection, but they acknowledge that this will be difficult to achieve in a prompt way (Mott, 2023).

One suggested alternative is to increase funding of conservation easement programs administered by the Natural Resources Conservation Service, United States Department of Agriculture (Hovorka, 2023; Mott, 2023). The Wetlands Reserve Easements Program provides payments to farmers and ranchers who voluntarily place wetlands on their property into a conservation easement, ensuring the wetlands are protected in perpetuity (NRCS, 2016, 2024b). A companion program, the Agricultural Land Easements Program, provides payments to farmers and ranchers who voluntarily place an entire farm or ranch into a conservation easement, thereby protecting rural land in perpetuity (NRCS, 2024a). These programs are considered successful, and while funding for them has increased, the demand still greatly exceeds program resources (Hovorka, 2023; Mott, 2023).

The “swampbuster” provision of the federal Farm Bill aids in preserving existing wetlands on farms (Hovorka, 2018, 2023). Farmers who receive benefits under the Farm Bill such as subsidized crop insurance premiums, or subsidized farm loans, must agree not to drain or fill wetlands on their property. The swampbuster provision is considered a pact between farmers who receive such federal benefits and taxpayers who pay for these benefits (Hovorka, 2018). Non-profit conservation organizations, including the Izaak Walton League and the National Wildlife Federation, have lobbied in the U.S. Congress against proposals to weaken swampbuster, for example, by exempting certain categories of wetlands from protection, or by reducing penalties for non-compliance. Indeed, these organizations argue for strengthening this provision, for example, by adopting improved technology for finding wetlands (Hovorka, 2023; Mott, 2023). It is estimated that the swampbuster provision protects millions of acres of wetlands on private farms.

Devine et al. (2024) propose that the Federal Emergency Management Agency (FEMA) include wetlands protection in its National Flood Insurance Program (NFIP) requirements. According to Jon Devine and other policy experts, “[FEMA] is one of the most important agencies with authority to help prevent the loss of aquatic resources no longer protected by the Clean Water Act” (Devine et al., 2024). When communities enroll in the NFIP, residents can buy subsidized flood insurance. In return, communities must agree to take steps to reduce the risk of damage from flooding, for example, new buildings must be elevated, and only limited development is allowed in floodways (channels that convey floodwater). Devine and others propose that the agency go beyond this, to require that communities enrolled in the NFIP agree to avoid development, to the extent possible, in wetlands and floodplain areas that absorb floodwater. In addition, they propose that communities should minimize and mitigate impacts where development in wetlands and such floodplain areas is unavoidable.

As Devine et al. (2024) relate, the National Resources Defense Council, as well as other non-profit conservation organizations, are trying to convince FEMA to revise its regulations, for the sake of enhanced wetlands conservation and public safety.

A review of *Sackett v. EPA* in the Harvard Law Review points out that an earlier Supreme Court decision, *County of Maui v. Hawaii Wildlife Fund*, provides a legal basis for extending CWA protection to some of the wetlands left federally unprotected in *Sackett* (Harvard Law Review, 2023). As this review explains, in *Hawaii Wildlife Fund* the Court ruled that to discharge pollutants into waters that are not “waters of the United States” is still a violation of the Act if the pollutants travel, through underground channels, to navigable or other protected waters and affect the quality of those waters. Such a discharge would constitute, in the words of the Court, “the functional equivalent of a direct discharge from the point source into [protected] waters,” a violation of the CWA (Harvard Law Review, 2023). Even pollutants such as dredged and fill material may travel to and affect the quality of protected waters (Harvard Law Review, 2023). It seems correct to claim that *Hawaii Wildlife Fund* provides a legal basis for the protection of at least some wetlands denied federal protection in *Sackett*.

Interestingly, the review of *Sackett* in the Harvard Law Review argues that, in *Sackett*, the Supreme Court appropriately placed responsibility for conserving isolated wetlands, those denied federal protection under the CWA, on the states (Harvard Law Review, 2023). The Court left it up to the states, and to Congress, to respond to the loss of federal protection. According to this review, many states extensively regulate their wetlands. State regulations may provide “more lasting protection than federal regulations,” which vary with political changes in Washington, D.C. This review insists that the *Sackett v. EPA* decision should not be viewed as catastrophic or devastating.

State Responses to Sackett

Some states responded to the *Sackett* decision by announcing that their regulations provide strong protection of wetlands independent of the federal CWA, and they affirm their commitment to protecting wetlands within their states. For example, on its internet site the Washington State Department of Ecology announces, “Wetlands remain protected in Washington state despite recent U.S. Supreme Court ruling” (Washington State Dept. of Ecology, 2023). The agency adds, “Wetlands, seasonal streams, and other waters in Washington remain protected under state law, and developers still need to apply for review and approval prior to beginning work that could affect these waters” (Washington State Dept. of Ecology, 2023). Yet the Department of Ecology has sought need increases in funding and staff. The department has sought funding to develop a more streamlined permitting program, one concerned specifically with the discharge of dredged or fill material into state waters (Brown, 2023; Straight and Kosters, 2023).[5] Commentators have noted that *Sackett* places a significant financial burden on even those states with strong wetlands protections in place, as they must adjust to the reduced federal role (Brown, 2023).

The California State Water Board responded to *Sackett* by saying, “[T]he decision . . . only narrows the scope of federal jurisdiction and does not weaken California’s more stringent wetlands protections” (California State Water Board, 2023). The State Water Board has sought increases in funding and staff to manage its wetlands permitting

program (Brown, 2023). Minnesota already had in place several permitting programs that provide strong protection of wetlands, and state officials affirm that conservation of Minnesota's wetlands is unaffected by *Sackett* (Brown, 2023). In response to *Sackett*, the Minnesota Board of Water revised its regulations to accommodate the weakened federal protection (Minnesota Board of Water, 2024).

Unlike Minnesota, Washington state, and California, Colorado had no allowing program in place that could protect the wetlands denied federal protection in *Sackett* (Peters, 2024). The state legislature responded to the *Sackett* decision in a dramatic way, by quickly passing legislation that put into place a permitting program that restores the protection for wetlands and streams lost with *Sackett*. As Smith (2024) explains, the *Sackett* decision is especially challenging for Colorado and other western states, since many streams in these states are seasonal or ephemeral, and many wetlands have subsurface connections to streams and other protected waters rather than continuous surface connections.

Like Colorado, Illinois lacked a wetland permitting program that could protect its isolated wetlands (Illinois Environmental Council, 2024). Illinois has lost an estimated 90 percent of its wetlands since Euro-American settlement. The Illinois legislature recently passed legislation creating a permitting program that provides the protection of wetlands and streams lost with *Sackett* (Illinois Environmental Council, 2024). Similarly, New Mexico lacked a wetland permitting program that could protect isolated wetlands (Grover, 2024). The state legislature recently appropriated funds for, among other needs, creation of such a program (Snyder, 2024).

North Carolina responded to *Sackett* by going in the opposite direction, by adopting legislation that weakened protection of wetlands (Igelman, 2024). State lawmakers passed the North Carolina Farm Act, which limits state protection to those wetlands that are protected by the CWA after *Sackett*, those that have a continuous surface connection to federally protected waters. Half the state's wetlands were left unprotected by federal and state regulations. Expressing concern over the risk of flooding if unprotected wetlands are drained or filled, Governor Roy Cooper vetoed the Farm Act (Whitaker, 2024; Savage, 2024). Lawmakers upheld the legislation, however, overriding the Governor's veto. Governor Cooper then issued an executive order that expands protection of North Carolina's environmental resources, including wetlands (Whitaker, 2024; Savage, 2024). The state's isolated wetlands are considered protected by executive action.

The Governor's executive order calls for the conservation of one million acres of the state's wetlands and forests, and the restoration of an added one million acres of wetlands and forests. In addition, state agencies are directed to "avoid or minimize projects that would adversely impact vulnerable wetlands such as pocosins, Carolina Bays, and mountain bogs" (Whitaker, 2024; see also Savage, 2024). Non-profit conservation organizations, such as the Carolina Wetlands Association and North Carolina Wildlife Federation, praise the executive order for prioritizing wetlands conservation. The order is viewed as "a significant step forward" in the conservation of

wildlife habitat (Whitaker, 2024).

Even prior to the *Sackett* decision, Indiana had reduced state protection of its wetlands (Heim 2024). Indiana recognizes three main classes of wetlands. Class I wetlands exist in disturbed areas and are considered low quality. In 2021, the state legislature cut permitting requirements for these wetlands (Heim, 2024). No state permit is needed to drain or fill these wetlands. The state legislature also reduced permitting requirements for Class II wetlands, which provide wildlife habitat. In 2024, the legislature passed a bill that reduces the number of Class III wetlands. Class III wetlands are rare or ecologically important, are considered high quality, and are strongly protected from degradation. The new legislation reclassifies many of these as Class II, reducing protection (Heim, 2024). Critics express concern over the potential loss of wetlands with these changes, noting that Indiana has already lost approximately 87 percent of its wetlands. Critics are concerned with potential effects on water quality in downstream waters, including Lake Michigan and the Ohio and Mississippi Rivers (Heim, 2024). The construction industry had considerable influence in drafting and passing the new legislation (Brown, 2024).

On the other hand, Indiana state regulations keep protection of many isolated wetlands, those that are no longer federally protected after *Sackett* (Indiana Dept. of Environmental Management, 2025b). Isolated wetlands are protected if they are not in Class I. In this way, Indiana state regulations go beyond federal protection of wetlands since *Sackett*. Proponents claim that the new regulations represent a reasonable compromise between wetlands conservation and the need for affordable housing and other development (Heim, 2024; Brown, 2024). It is interesting to note that the Audubon Society is still engaged in lobbying for wetlands conservation in Indiana, hosting bird walks and other events that bring together wetlands advocates and federal and state legislators (Audubon Great Lakes, 2023).

In response to *Sackett*, state legislators in Tennessee introduced a bill that reduces protection of wetlands, but the proposed legislation stalled in committee (Harpeth Conservancy, 2024). Tennessee state regulations currently specify that any activity that involves an alteration of a stream, river, lake, or wetland requires either a state 401 water quality certification or an Aquatic Resource Alteration Permit (ARAP) (Tennessee Dept. of Environment, 2024). The need for a 401 water quality certification is triggered by the need for a federal permit under the CWA, such as a 404 permit from the U.S. Army Corps of Engineers allowing discharge of dredged or fill material into a federally protected water.[6] The 401 certification program does not extend to wetlands that are not federally protected under the CWA. If a proposed activity involves physical alteration of an isolated wetland (not federally protected), the developer must apply for a state ARAP (Tennessee Dept. of Environment, 2024). The Department of Environment and Conservation will ensure that state water quality standards are upheld, that no less harmful alternative to the proposed project is available, and that harm to the affected wetland is mitigated. Tennessee state regulations are currently protective of isolated wetlands.

In response to *Sackett*, Tennessee legislators introduced a bill cutting state protection of isolated wetlands (Harpeth Conservancy, 2024). Critics note the considerable influence

of the construction industry in drafting and trying to pass the proposed legislation (Eggers, 2024). Failure to pass the proposed legislation was due, in large part, to input from state agency regulators and non-profit conservation organizations, such as the Harpeth Conservancy and the Southern Environmental Law Center.

Many states are not protective of their isolated wetlands (Environmental Integrity Project, 2024). As in Tennessee, in Missouri, Kansas, and other states the need for a state-administered 401 certification is triggered by the need for a federal permit under the CWA, such as a 404 permit from the U.S. Army Corps of Engineers that allows the discharge of dredged or fill material into a federally protected water. The 401 certification program does not extend to wetlands that are no longer federally protected under the CWA (see, for example, Werner, 2023).[7] In Missouri, Kansas, and other states, no separate permitting program exists that protects isolated wetlands from discharges of dredged or fill material (Missouri Dept. of Natural Resources, 2025b; Kansas Dept. of Health and Environment, 2024). To be sure, both Missouri and Kansas require a permit for activities that involve alteration of streams, including streams that are not federally protected (Missouri Dept. of Natural Resources, 2025a; Kansas Dept. of Agriculture, 2024).[8] Kansas requires permits for development in flood plains, for those communities participating in the National Flood Insurance Program. Yet neither of these states protects isolated wetlands from development activities that involve discharges of dredged or filling material. Non-profit conservation organizations take part in efforts to conserve isolated wetlands in these states (Miller, 2024; Kansas Alliance for Wetlands and Streams, 2023).

The Utah Division of Water Quality manages a 401-water quality certification program, and, here again, the 401-water quality certification program does not extend to wetlands that are no longer federally protected under the CWA (Utah Dept. of Environmental Quality, 2024). To be sure, activities that involve stream alteration must have written authorization from the Utah Division of Water Rights (Utah Division of Water Rights, 2024). Yet Utah state regulations do not protect isolated wetlands from development that involves discharges of dredged or filling material. Rather, the state strongly encourages voluntary wetlands conservation on private lands. A Utah Geological Survey website tells, “There are many actions landowners can take to minimize impacts to wetlands on their property” (Utah Geological Survey, 2024). In addition, “Landowners interested in wetland conservation have many options to temporarily or permanently protect their wetlands, often with some financial incentive” (Utah Geological Survey, 2024). A state agency brochure includes this revealing statement: “Decisions concerning the future of private land are very personal. Each piece of land and each landowner’s situation is different” (Utah Division of Wildlife Resources, 2000).

Utah is protective of wetlands and other waters in this very dry state. The Utah Division of Water Quality declares as its mission: “[T]o protects, maintain and enhance the quality of Utah’s surface and underground waters for appropriate beneficial uses” (Utah Division of Water Quality, 2023). Yet Utah is a conservative state that places high value on the rights of private property owners. Voluntary wetlands conservation is considered far preferable over government-mandated conservation.

Several non-profit conservation organizations help protect and restore wetlands around Great Salt Lake. Utah's Great Salt Lake supports 75 % of the state's wetlands, and the entire ecosystem is extremely important as wildlife habitat, especially for waterfowl (Biddlecomb, 2024). An impressive number of water birds make the lake their home at some point in their lives, including over ten million migrating ducks and other wetland birds (The Nature Conservancy, 2025). Ducks Unlimited partners with federal and state agencies, private duck clubs, and private landowners to conserve and restore Great Salt Lake wetlands (Biddlecomb, 2024). The Nature Conservancy keeps Great Salt Lake Shorelands Preserve, which includes 4,400 acres of wetland and upland habitats (The Nature Conservancy, 2025). Non-profit environmental organizations (NGOs), such as Utah Physicians for a Healthy Environment, oppose state plans to construct warehouses and other "port" facilities next to Great Salt Lake, which will result in loss of wetlands (Utah Physicians for a Healthy Environment, 2022). In Utah, wetlands conservation is a patchwork affair, involving efforts by federal and state agencies, non-profit environmental organizations, private duck clubs, and private landowners interested in voluntary conservation.

State agencies in approximately half the states, including Kansas, Missouri, Utah, Idaho, and others manage 401 water quality certification programs, but do not have programs in place that protect from discharges of dredged or fill material those wetlands that are no longer federally protected under the CWA (Environmental Integrity Project, 2024).[9]

Finally, a Montana state permitting program protects isolated wetlands. The Montana Department of Environmental Quality (DEQ) manages a 401-water quality certification program, and the need for a state 401 water quality certification is triggered by the need for a federal permit. Yet the Montana DEQ also manages a separate "318 Authorization" program (Montana Dept. of Environmental Quality, 2025). A 318 Authorization must be obtained for any activity that will result in a temporary violation of state standards for turbidity in state water. "State water" explicitly includes wetlands on public and private lands. The discharge of dredged or filled material into a wetland will affect the turbidity (the cloudiness or murkiness) of the water. A goal of the 318 Authorization program is "to ensure that existing and designated beneficial uses of state water are protected and maintained" (Montana Legislature, 2024). In this way, wetlands protection in Montana goes beyond federal wetlands protection after *Sackett*, and it goes beyond wetlands protection in many other states.

As in these examples, the states have responded to *Sackett* in many ways. Some states, such as California, Washington state, and Minnesota already had programs in place prior to *Sackett* that protect isolated wetlands from discharges of dredged or filling material (Brown, 2023). State agencies responded to *Sackett* by requesting more funds and staff. Again, the *Sackett* decision placed a large financial burden on even those states with strong wetlands programs already in place (Brown, 2023). Washington State Department of Ecology requested funds to develop a more streamlined permitting

program (Straight and Kosters, 2023). Neither Colorado nor Illinois had a wetland permitting program prior to *Sackett* and they responded dramatically, by moving quickly to develop permitting programs that compensated for the loss of federal protection (Brown, 2023).

North Carolina passed legislation to restrict state protection to those wetlands that are federally protected after *Sackett*; isolated wetlands in North Carolina are now protected by executive order (Whitaker, 2024; Savage, 2024). The Tennessee legislature considered a bill restricting state protection to wetlands that are federally protected after *Sackett*, but the bill stalled in legislative committee (Harpeth Conservancy, 2024). Tennessee is currently protective of its isolated wetlands (Tennessee Dept. of Environment, 2024). Indiana passed legislation to reduce protection of its wetlands, but state regulations still protect from development isolated wetlands that are rare or ecologically important (Heim, 2024; Indiana Dept. of Environmental Management, 2024). Half the states, including Utah, Kansas, Missouri, Idaho, and others have left isolated wetlands with no federal or state protection from discharges of dredged or filling material (Environmental Integrity Project, 2024).

Patchwork Protection of a Valued Resource

Wetlands are highly valued in America. In every state of the nation, state agencies extol the virtues of wetlands and call for enhanced conservation. For example, according to the Indiana Department of Environmental Management:

> It is now widely accepted that wetlands are a vital resource providing services to both humans and the greater environment. Some of the commonly listed services include protecting and improving water quality, floodwater storage, groundwater recharge, maintaining surface water flow during dry periods, providing habitat for fish and wildlife, recreation, and aesthetics. However, Indiana has lost most of its wetlands. In the 1800s and 1900s millions of acres of wetlands were converted into farms, cities, roads, and to protect human health. . .. This knowledge has encouraged Hoosiers to support conservation and restoration of wetlands across the state in numerous ways (Indiana Dept. of Environmental Management, 2025a).

The Utah Division of Water Quality (DEQ) states:

> Integrated within the Great Salt Lake ecosystem are extensive wetlands that span the transition between the lake and a mosaic of cold desert, rugged mountains, and rapidly growing urban areas. These wetlands provide essential ecosystem services that moderate surface water and ground water flows and protect downstream aquatic systems by removing excess nutrients and other pollutants. There is an essential need to maintain the health and extent of these valuable ecosystems for future generations (Utah Division of Water Quality, 2023).

While the level of regulatory protection for wetlands varies from state to state, agencies in all states recognize their value and strive to safeguard them following state laws. It is clear that some states seek a proper balance of wetlands conservation and meeting other needs, for example, the need for housing and other development (Heim, 2024; Brown, 2024). Supporters view the new wetlands regulations in Indiana (which lower protection) as a “compromise” between wetlands conservation and meeting the need for development (Heim, 2024; Brown, 2024). In Utah and other states, a primary concern is respecting the rights of private property owners.

Non-profit conservation organizations (NGOs) play a vital role in protecting wetlands. These organizations educate the public regarding the value of wetlands, alert the public regarding threats to wetlands, lobby federal and state agencies, lobby federal and state legislators, set aside wetland habitat within protected reserves, and actively seek to restore wetlands (see, for example, Biddlecomb, 2024; The Nature Conservancy, 2025). These organizations may seek solutions through the courts. For example, the Center for Biological Diversity, and the Hoosier Environmental Council, sued the U.S. Fish and Wildlife Service over its failure to list Kirkland’s snake (*Clonophis kirtlandii*) as threatened or endangered under the federal Endangered Species Act (Center for Biological Diversity, 2022; Endangered Species Act, 1973). According to a policy expert, federal listing of this wetland-dependent snake is particularly important given Indiana’s lowered state protection of wetlands.

Numerous non-profit conservation organizations fairly claim credit for aiding in successful wetlands conservation and restoration in America.[10] Especially in those states with weaker regulatory protection of wetlands, it is important that the public and state legislators are aware that these organizations, and their memberships, support wetlands and are willing to take action to protect them. These organizations help to counterbalance the considerable influence of agriculture and the construction industry in drafting and passing legislation concerning wetlands in a number of states.

Efforts by private property owners are a vital aspect of the tapestry that is wetlands conservation in America. Again, Utah state agencies strongly encourage voluntary wetlands conservation on private lands (Utah Division of Wildlife Resources, 2000). As explained, the Wetlands Reserve Easements Program, administered by the Natural Resources Conservation Service, provides payments to farmers and ranchers who voluntarily place wetlands on their property into conservation easements (NRCS, 2016, 2024b). The program is effective and is in high demand across the nation (Hovorka, 2023; Mott, 2023). The U.S. Fish and Wildlife Service (USFWS) administers a similar program in the Prairie Pothole Region, which stretches from northeastern Montana through the Dakotas, and into Minnesota and northern Iowa. The USFWS provides payments to private landowners who agree to place their prairie pothole wetlands into conservation easements (USFWS, 2025b). Up to 90 percent of prairie pothole wetlands have been lost since Euro-American settlement (Ducks Unlimited, 2024).[11]

Wetlands are protected in America in this patchwork or piecemeal fashion, with continued federal protection of “waters of the United States,” and, in some states, state

protection of isolated wetlands, those no longer federally protected under the CWA (see, for example, Washington State Dept. of Ecology, 2023). Non-profit conservation organizations (NGOs) make essential contributions to wetlands conservation in America (see, for example, Biddlecomb, 2024; The Nature Conservancy, 2025; Center for Biological Diversity, 2022). Conservation easements are an effective means of conserving wetlands on private lands (Hovorka, 2023; Mott, 2023). The "swampbuster" provision of the federal Farm Bill protects millions of acres of wetlands on private farmlands. As discussed, this provision mandates that farmers who receive government benefits, such as subsidized insurance premiums or subsidized farm loans, agree not to drain or fill wetlands on their property (Hovorka, 2018). The Izaak Walton League, and the National Wildlife Federation, seek to preserve swampbuster from efforts to weaken it and suggest improvements (Hovorka, 2023; Mott, 2023).

The Need to Protect Isolated Wetlands

The review of *Sackett* in the Harvard Law Review argues that the Supreme Court appropriately placed responsibility for protecting isolated wetlands on the states (Harvard Law Review, 2023). It is up to each state to decide the degree to which to protect these waters. The decisions made in state legislature will generally reflect the values of state residents. Some states obviously look to balance wetlands conservation with meeting other needs, for example, the need for economic development or to respect private property rights. With *Sackett*, wetlands conservation in America may seem more flexible and democratic than a federal mandate to protect all wetlands from development.

Many wetlands have disappeared since Euro-American settlement. The rate of wetlands loss has been increasing in recent years, and policy experts argue that we cannot afford to lose more wetlands (Ramirez-Franco, 2023). According to a U.S. Fish and Wildlife Service report, over 50 percent of wetlands in the United States have been lost since the 1780s. In addition, wetland losses have increased by 50 percent since 2009, with the highest losses in the southeast, the Great Lakes states, and the Prairie Pothole Region (USFWS, 2024). According to the USFWS report, approximately 670,000 acres of salt marshes and swamps were lost between 2009 and 2019. As mentioned, up to 90 percent of prairie pothole wetlands (small, isolated wetlands) in the Northern Plains have been lost (Ducks Unlimited, 2024). In Indiana, approximately 87 percent of wetlands have been lost; in Illinois, approximately 90 percent have been lost (Heim, 2024; Illinois Environmental Council, 2024). Similarly, in Missouri an estimated 87 percent of wetlands have been lost (Miller, 2024).

Isolated wetlands provide essential functions. They improve water quality downstream in lakes, rivers, and other waters by filtering out sediments and pollutants (UT School of Natural Resources, 2024). They store storm water and then release it slowly, thereby providing natural flood control. Federal and state agencies provide evidence that wetlands help control flooding (see EPA, 2006). Wetlands provide essential habitat for migrating birds and other wildlife (UT School of Natural Resources, 2024; USFWS, 2002). Isolated wetlands, well distributed over a landscape, are essential for supporting

amphibian (frog and salamander) populations (USFWS, 2002). Northern leopard frogs (*Lithobates pipiens*), and any other amphibian species, are in steep decline across the United States, and the major cause is habitat loss.

The Supreme Court in *Sackett* distinguished wetlands that have a continuous surface connection to navigable and other protected waters, from those wetlands that lack such a connection, and declared that the former are federally protected under the CWA (Sackett v. EPA, 2023). The former are "waters of the United States," while isolated wetlands are not. The boundary drawn by the Court is entirely arbitrary ecologically. All wetlands provide vital functions for humans and wildlife. Supporters of the new Indiana wetlands regulations claim that the new regulations place at increased risk only "low-quality wetlands" that are, it is implied, expendable (Brown, 2024). The distinction between "high-quality" and "low-quality" wetlands is entirely arbitrary. Especially since many wetlands have already been lost, every wetland is valuable and should be protected due to the functions needed it provides.

Importantly, as wetlands continue to be lost, the negative impacts are not confined to the immediate areas in which the wetlands have been lost. A major concern is that increased pollution, and increased risk of flooding, will extend downstream to lakes and rivers shared with other states, or to waters found entirely within other states (Heim, 2024). Again, critics are concerned that the lower protection for wetlands in Indiana may negatively affect Lake Michigan and the Ohio and Mississippi Rivers. It is fair to say that with respect to water quality in surface waters across the nation, and the risk of flooding, as Americans we are all in this together. As wetlands continue to be lost, we share a common fate. Consider that the Federal Emergency Management Agency (FEMA) is charged with aiding in relief efforts when disasters occur, for example, flooding (FEMA, 2024). American taxpayers fund FEMA, so we are all affected by the continued loss of wetlands across the country, including financially.

An argument in favor of placing responsibility for the conservation of isolated wetlands on the states is that this allows wetlands conservation to vary state by state. States may seek a proper balance of wetlands conservation and meeting other needs. Presumably, the level of wetlands conservation will reflect the values of state residents, making this, perhaps, a more democratic approach. Yet this is an ineffective approach. Many wetlands have already been lost across the country and continue to be lost at an alarming rate (USFWS, 2024). Isolated wetlands provide essential functions (improved water quality, reduced risk of flooding, wildlife habitat, etc.), and their continued loss affects all of us, financially and otherwise (Heim, 2024). The conclusion is inescapable that, in America, wetlands must be protected from degradation not in a patchwork, more-or-less fashion, but effectively and uniformly at the federal level (Mott, 2023).

Conclusion

It is imperative that the U.S. Congress pass a revised CWA that clearly specifies the waters protected by the Act, extending protection to prairie potholes, vernal pools, and

other isolated wetlands denied federal protection in *Sackett* (Mott, 2023). It seems necessary to mandate use of the “significant nexus” test, protecting from the discharge of dredged or fill material those wetlands that have a significant hydrological or ecological connection to downstream protected waters. We must expect that a revised CWA will protect from agricultural uses and urban development virtually all wetlands and other surface waters across the nation. Granted, it will be difficult to pass such a revised CWA in the sharply divided U.S. Congress, but perhaps in the not-too-distant future this will be possible. Passage of a revised CWA into law will reflect American representative democracy at the federal level.

In the meantime, policy experts have suggested reasonable alternatives for protecting isolated wetlands (Mott, 2023). As mentioned, the Natural Resources Defense Council, and other non-profit conservation organizations, are lobbying FEMA to require that communities enrolled in the National Flood Insurance Program agree to avoid development, to the extent possible, in wetlands and floodplain areas that absorb floodwater (Devine et al., 2024). These organizations further urge that communities should minimize, and mitigate, changes where development in wetlands and such floodplain areas is unavoidable. This seems to be a possible idea for enhancing wetlands conservation in Kansas and other states.

Another possible idea for enhancing wetlands conservation across the country is to increase funding for the Wetlands Conservation Easements Program, administered by the Natural Resources Conservation Service (Hovorka, 2023; Mott, 2023). Again, the program is considered successful; the demand greatly exceeds available resources. Another useful idea is strengthening the swampbuster provision of the Farm Bill, for example, by adopting improved technology for finding wetlands (Hovorka, 2018).

Citizens who wish to be involved in wetlands conservation have several options, including joining a national or local non-profit conservation organization dedicated to wetlands conservation. As discussed, these organizations make essential contributions, including educating the public, lobbying federal and state agencies, lobbying federal and state legislators, aiding in conservation and restoration efforts, and perhaps seeking solutions through the courts (see, for example, Biddlecomb, 2024; The Nature Conservancy, 2025; Center for Biological Diversity, 2022). These organizations welcome the aid of volunteers (see, for example, The Nature Conservancy, 2025). Alternatively, citizens may wish to work independently, or in small groups (in newly formed non-profits), in educational and lobbying efforts. Many state agencies and non-profit groups recruit volunteers for wetlands monitoring (e.g., Utah Division of Wildlife Resources, 2002). Citizens may choose to become “citizen scientists,” trained by scientists to help with monitoring and reporting data. In many states, wetlands and other aspects of the natural environment are under increased threat from agriculture and urban development, and it is up to all of us to aid in conservation efforts.

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Notes

[1] This is a simplified account of the 2015 Clean Water Rule. For more details, see Gatz (2018).
[2] "In sum, we hold that the CWA extends to only those wetlands with a continuous surface connection to bodies that are 'waters of the United States' in their own right, so that they are 'indistinguishable' from those waters" (Sackett v. EPA, 2023).
[3] The 2023 Conforming Rule defines "waters of the United States" partly in terms of "[w]aters which are . . . [c]urrently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide" (EPA, 2023b, 2025). Federal regulation 33 C.F.R. 329 (2014) defines "navigable waters" using this long expression.
[4] As the agencies understand "continuous surface connection," such a connection is present only if a wetland "physically abut[s] or touch[es]" a protected water (Army Corps and EPA, 2025). Such a connection is not proved by "discrete features" such as culverts. Consistent with *Sackett*, a wetland is not protected under the CWA if it is separated from a protected water by "a berm, dike, or similar feature" (Army Corps and EPA, 2025).
[5] A wetlands permitting program allows a state agency to issue permits to engage in activities that may negatively affect a wetland. The agency will decide whether less harmful alternatives to the proposed project are available. A permit will specify conditions that must be met, conditions intended to minimize and mitigate harm. In this way, wetlands are protected from degradation.
[6] Section 404 of the CWA requires that a permit from the U.S. Army Corps of Engineers be issued for any discharge of dredged or fill material into a water of the United States (Army Corps, 2024). Section 401 of the Clean Water Act stipulates that a federal agency is prohibited from issuing a permit for the discharge of pollutants into protected waters unless the relevant state or tribal authority grants a Section 401 water quality certification for the proposed activity, or formally waives such certification (EPA, 2024).
[7] "In Missouri, the Clean Water Act, through section 401 gives states authority to protect wetlands from certain activities through their state water quality certification program. But that authority in Missouri is directly tied to the Clean Water Act's section 404 permit process at the national level. Meaning that if a 404 permit is not needed, nor is a 401 certification" (Werner, 2023).
[8] Missouri, Kansas, and other states are protective of many streams that are "waters of the state." State agencies provide guidelines for deciding which streams require permits for stream alteration (see, for example, Kansas Dept. of Agriculture, 2024). The Missouri legislature recently considered a bill that would redefine "waters of the state" to restrict the streams and other waters under state authority. Although agricultural organizations backed the bill, it ultimately was not passed (Kite, 2024; BillTrack50, 2024).
[9] The Environmental Integrity Project (2024) lists 24 states that, it is claimed, do not protect from discharges of dredged or filling material the wetlands no longer protected under the CWA. The list includes Montana, although Montana offers protection from

such activities with its 318 Authorization Program (see text below). The list appropriately includes Utah, Idaho, Missouri, Kansas, and other states.

[10] These organizations include (to give credit) Carolina Wetlands Association, Harpeth Conservancy, Southern Environmental Law Center, Ducks Unlimited, The Nature Conservancy, Center for Biological Diversity, National Wildlife Federation, Audubon Society, Izaak Walton League, Natural Resources Defense Council, Protect Colorado Waters Coalition, and many others.

[11] The U.S. Fish and Wildlife Service has started a decades-long project to enhance and restore thousands of acres of grasslands and prairie pothole wetlands throughout the Prairie Pothole Region. The USFWS will work in partnership with Ducks Unlimited, Pheasants Forever, The Nature Conservancy, the North Dakota Natural Resources Trust, the Minnesota Land Trust, the Minnesota Department of Natural Resources, the Iowa Department of Natural Resources, and private landowners. Funding is provided, in part, by grants available through the federal Inflation Reduction Act (Shaw, 2024). It should also be mentioned that the North American Wetlands Conservation Act provides funding for wetlands conservation and restoration projects around the country (USFWS, 2025a; North American Wetlands Conservation Act, 2006). Federal and state agencies, collaborating with other agencies and private landowners, can receive grants for their submitted proposals.

References

Audubon Great Lakes. (2023). *World water week: protecting Indiana's wetlands post-Supreme Court's ruling in Sackett v. EPA*. https://gl.audubon.org/news/world-water-week-protecting-indiana%E2%80%99s-wetlands-post-supreme-court%E2%80%99s-ruling-sackett-v-epa.

Biddlecomb, M. (2024). *DU's Utah wetlands initiative.* Ducks Unlimited. https://www.ducks.org/conservation/waterfowl-habitat/dus-utah-wetlands-initiative.

BillTrack50. (2024). *Bill MO SB981*. https://www.billtrack50.com/billdetail/1652315.

Bowers, K. (2021). *What's next for WOTUS: Recent litigation and next steps in redefining "waters of the United States."* Congressional Research Service. https://crsreports.congress.gov/product/pdf/LSB/LSB10646.

Brown, A. (2023, Dec. 5). *After the Clean Water Act ruling, states that want to protect affected wetlands need millions*. Stateline. https://stateline.org/2023/12/05/after-clean-water-act-ruling-states-that-want-to-protect-affected-wetlands-need-millions/#:~:text=In%20May%2C%20the%20Supreme%20Court,to%20meet%20the%20court's%20limitations.

Brown, A. (2024, Mar. 20). *As feds stand down, states choose between wetlands protections or rollbacks*. Stateline. https://stateline.org/2024/03/20/as-feds-stand-down-states-choose-between-wetlands-

protections-or-rollbacks/.
California State Water Resources Control Board. (2023, May 5). *State Water Board: U.S. Supreme Court decision decreases federal wetlands protection*. https://www.waterboards.ca.gov/press_room/press_releases/2023/pr03052023-statement-from-state-water-board-on-sackett-decision.pdf.
Center for Biological Diversity. (2022, June 8). *Lawsuit seeks to protect wetland-dependent midwestern snake*. https://biologicaldiversity.org/w/news/press-releases/lawsuit-seeks-to-protect-wetland-dependent-midwestern-snake-2022-06-08/.
Clean Water Act (CWA), Public Law No. 92-500 (1972). https://www.govinfo.gov/content/pkg/STATUTE-86/pdf/STATUTE-86-Pg816.pdf.
Colorado Department of Public Health and Environment. (2024, May 30). *Gov. Jared Polis signs legislation to protect Colorado's wetlands and streams, provide regulatory certainty for businesses and individuals*. https://cdphe.colorado.gov/press-release/gov-jared-polis-signs-legislation-to-protect-colorados-wetlands-and-streams-provide.
Devine, J. (2024, Oct. 18). *New ways to protect water after Supreme Court disaster*. Natural Resources Defense Council. https://www.nrdc.org/bio/jon-devine/new-ways-protect-water-after-supreme-court-disaster.
Ducks Unlimited. (2024). *Prairie pothole region.* https://www.ducks.org/conservation/where-ducks-unlimited-works/prairie-pothole-region#:~:text=Between%2050%20to%2090%20percent,caused%20by%20wetland%20drainage%20systems.
Eggers, C. (2024, Feb. 15). *Wetlands have some protections in Tennessee. The state legislature might remove them*. 90.3 WPLN. https://wpln.org/post/wetlands-have-some-protections-in-tennessee-the-state-legislature-might-remove-them/.
Endangered Species Act, Public Law No. 93-205 (1973). https://www.govinfo.gov/content/pkg/STATUTE-87/pdf/STATUTE-87-Pg884.pdf.
Environmental Integrity Project. (2024, May 28). *One year after key Supreme Court decision, almost half of states leave many wetlands unprotected*. https://environmentalintegrity.org/wp-content/uploads/2024/05/EIP_Report_WetlandsReport_5.23.pdf.
Federal Emergency Management Agency (FEMA). (2024). *About us*. https://www.fema.gov/about.
Gatz, L. (2018). *"Waters of the United States" (WOTUS): Current status of the 2015 Clean Water Rule*. Congressional Research Service. https://crsreports.congress.gov/product/pdf/R/R45424.
Grover, H. (2024, June 30). *Following Sackett, questions remain about what waters are protected*. New Mexico Political Report. https://nmpoliticalreport.com/2024/06/30/following-sackett-questions-remain-about-what-waters-are-protected/#:~:text=New%20Mexico%20has%20taken%20steps,to%20reconnect%20wetlands%20and%20waterways.
Harpeth Conservancy. (2024). *Tennessee wetlands.* https://harpethconservancy.org/tennessee-wetlands/.
Harvard Law Review. (2023). Supreme Court, leading cases—Sackett v. EPA. *Harvard Law Review, 137*(1), 390-99. https://harvardlawreview.org/print/vol-137/sackett-v-epa/.
Heim, M. (2024, Feb. 20). *"A race to the bottom": Indiana wetlands bill could affect Mississippi River, Great Lakes*. Investigate Midwest. https://investigatemidwest.org/2024/02/20/a-race-to-the-bottom-indiana-wetlands-bill-could-affect-mississippi-river-great-lakes/.
Hovorka, D. (2018, May 29). *Swampbuster key to protecting rural wetlands*. Izaak Walton League of America. https://www.iwla.org/publications/blog/blog/soil-matters/2018/05/29/swampbuster-key-to-protecting-rural-wetlands.

Hovorka, D. (2023, May 2). *Protecting America's wetlands: 2023 Farm Bill must be a wetlands bill*. Izaak Walton League of America. https://www.iwla.org/publications/blog/blog/soil-matters/2023/05/02/protecting-america's-wetlands-2023-farm-bill-must-be-a-wetlands-bill.

Hu, S. (2024, Aug. 14). *The Clean Water Act 101*. Natural Resources Defense Council. https://www.nrdc.org/stories/clean-water-act-101.

Igelman, J. (2024, March 15). *Isolated NC wetlands face loss of protection following federal ruling*. Carolina Public Press. https://carolinapublicpress.org/63494/isolated-nc-wetlands-loss-protection-federal-ruling

Illinois Environmental Council. (2024, Mar. 5). *Sen. Ellman, Rep. Moeller, community advocates announce legislation to protect Illinois wetlands after U.S. Supreme Court overreach*. https://ilenviro.org/sen-ellman-rep-moeller-community-advocates-announce-legislation-to-protect-illinois-wetlands-after-u-s-supreme-court-overreach/.

Indiana Department of Environmental Management. (2025a). *Indiana wetland program plan*. https://www.in.gov/idem/wetlands/resources/indiana-wetland-program-plan/.

Indiana Department of Environmental Management. (2025b). *Understanding state regulated wetland exemptions*. https://www.in.gov/idem/wetlands/information-about/state-regulated-wetlands-program/understanding-state-regulated-wetland-exemptions/.

Kansas Alliance for Wetlands and Streams. (2023). *Connecting the waters, lands, and people of Kansas*. https://kaws.org/.

Kansas Department of Agriculture. (2024). *Stream and floodplain permits*. https://www.agriculture.ks.gov/divisions-programs/division-of-water-resources/water-structures/stream-and-floodplain-permits.

Kansas Department of Health and Environment. (2024). *Section 401 water quality certification*. https://www.kdhe.ks.gov/1095/Section-401-Water-Quality-Certification.

Kite, A. (2024, Mar. 6). *Missouri bill would slash state regulations over small streams and major aquifers*. Missouri Independent. https://missouriindependent.com/2024/03/06/missouri-bill-would-slash-state-regulations-over-small-streams-and-major-aquifers/.

Miller, C. (2024, Jan. 28). *Where we stand in Missouri after the U.S. Supreme Court's attack on clean water*. Missouri Coalition for the Environment. https://moenvironment.org/blog/where-we-stand-in-missouri-after-the-supreme-courts-attack-on-clean-water/.

Minnesota Board of Water and Soil Resources. (2023, Sept.). *BWSR updating Wetland Conservation Act rules to reflect statutory changes*. https://bwsr.state.mn.us/sites/default/files/2024-08/snapshots-story-4-september-2024-wca-rulemaking.pdf.

Missouri Department of Natural Resources. (2025a). *In-stream sand and gravel mining*. https://dnr.mo.gov/land-geology/businesses-landowners-permittees/permits/industrial-mineral/stream-sand-gravel-mining.

Missouri Department of Natural Resources. (2025b). *Wetlands*. https://dnr.mo.gov/water/hows-water/state/wetlands.

Montana Department of Environmental Quality. (2025). *Water: Permitting and operator assistance*. https://deq.mt.gov/water/assistance.

Montana Legislature. (2024). *75-5-318 Short-term water quality standards for turbidity.* https://archive.legmt.gov/bills/mca/title_0750/chapter_0050/part_0030/section_0180/0750-0050-0030-0180.html.

Mott, J. (2023, Oct. 3). *Sackett v. EPA spells disaster for wetlands and clean water*. Izaak Walton League of America. https://iwla.org/publications/blog/blog/blog/2023/10/03/sackett-v.-epa-spells-disaster-for-wetlands-and-clean-water.

Natural Resources Conservation Service (NRCS). (2016, Mar. 21). *How NRCS Wetland*

Reserve Easements work. https://www.nrcs.usda.gov/sites/default/files/2022-10/How%20NRCS%20WRE%20easements%20work.pdf.
Natural Resources Conservation Service (NRCS). (2024a). *Agricultural Land Easements*. https://www.nrcs.usda.gov/programs-initiatives/ale-agricultural-land-easements.
Natural Resources Conservation Service (NRCS). (2024b). *Wetland Reserve Easements*. https://www.nrcs.usda.gov/programs-initiatives/wre-wetland-reserve-easements.
(The) Nature Conservancy. (2025). *Great Salt Lake Shorelands Preserve*. https://www.nature.org/en-us/get-involved/how-to-help/places-we-protect/the-great-salt-lake-shorelands-preserve/.
North American Wetlands Conservation Act, Public Law No. 109-322 (2006). https://www.fws.gov/law/north-american-wetlands-conservation-act.
Peters, J. (2024, May 23). *A year since Sackett v. EPA: Colorado becomes first state to restore protections to wetlands and streams*. Clean Water Action. https://cleanwater.org/2024/05/23/year-sackett-v-epa-colorado-becomes-first-state-restore-protections-wetlands-and-streams.
Ramirez-Franco, J. (2023, Jan. 31). *The Supreme Court could end protections for some wetlands, threatening water and wildlife*. KCUR 89.3. https://www.kcur.org/2023-01-26/the-supreme-court-could-end-protections-for-some-wetlands-threatening-water-and-wildlife.
Sackett v. Environmental Protection Agency et al., 598 U.S. 651 (2023). http://www.supremecourt.gov/opinions/22pdf/21-454_4g15.pdf.
Savage, R. (2024, Mar. 2). *NC governor's executive order helps protect wetlands*. Carolina Wetlands Association. https://www.carolinawetlands.org/nc-governor-s-executive-order-helps-protect-wetlands.
Shaw, T. (2024, Mar. 13). *Restoring the prairies for wildlife and people*. U.S. Fish and Wildlife Service. https://www.fws.gov/story/2024-03/restoring-prairies-wildlife-and-people.
Smith, J. (2024, June 6). *Colorado's new wetlands protections lead the nation 1 year after EPA rules were struck by Supreme Court*. Colorado Sun. https://coloradosun.com/2024/06/06/colorado-new-wetlands-protections-supreme-court-sackett/.
Snyder, T. (2024, May 24). *New Mexico's waters one year after Sackett*. New Mexico Wilderness Alliance. https://www.nmwild.org/2024/05/24/new-mexicos-waters-one-year-after-sackett-blog/.
Straight, C. and Kosters, K. (2023, Nov.). *Dredge-and-fill permit updates in Washington State*. Raedeke Associates. https://raedeke.com/dredge-and-fill-permit-updates-in-washington-state/.
Tennessee Department of Environment and Conservation. (2024). *Aquatic Resource Alteration Permit (ARAP)*. https://www.tn.gov/environment/permit-permits/water-permits1/aquatic-resource-alteration-permit--arap-.html#:~:text=Who%20Needs%20An%20ARAP/Section,Structural%20fill.
U.S. Army Corps of Engineers. (2022, Oct.). *The Clean Water Act and the Army Corps of Engineers*. https://www.usace.army.mil/About/History/Historical-Vignettes/Civil-Engineering/155-Clean-Water-Act-Overview/.
U.S. Army Corps of Engineers. (2024). *Section 404 of the Clean Water Act*. https://www.spl.usace.army.mil/Missions/Regulatory/Jurisdictional-Determination/Section-404-of-the-Clean-Water-Act/.
U.S. Army Corps of Engineers and U.S. Environmental Protection Agency (EPA). (2015, June 29). Clean Water Rule: Definition of "waters of the United States." *Federal Register, 80*(124), 37054-37127. https://www.federalregister.gov/documents/2015/06/29/2015-13435/clean-water-rule-definition-of-waters-of-the-united-states.

U.S. Army Corps of Engineers and U.S. Environmental Protection Agency (EPA). (2025). *Memorandum to the field between the U.S. Department of the Army, U.S. Army Corps of Engineers and the U.S. Environmental Protection Agency concerning the proper implementation of "continuous surface connection" under the definition of "waters of the United States" under the Clean Water Act.* https://www.epa.gov/system/files/documents/2025-03/2025cscguidance.pdf.

U.S. Environmental Protection Agency (EPA). (2006, May). *Wetlands: Protecting life and property from flooding*. https://www.epa.gov/sites/default/files/2016-02/documents/flooding.pdf.

U.S. Environmental Protection Agency (EPA). (2023a, Aug. 29). *To conform with recent Supreme Court decision, EPA and Army amend "waters of the United States" rule*. https://www.epa.gov/newsreleases/conform-recent-supreme-court-decision-epa-and-army-amend-waters-united-states-rule.

U.S. Environmental Protection Agency (EPA). (2023b, Sept. 8). Revised definition of ''waters of the United States''; conforming. *Federal Register, 88*(173), 61964-61969. https://www.federalregister.gov/documents/2023/09/08/2023-18929/revised-definition-of-waters-of-the-united-states-conforming.

U.S. Environmental Protection Agency (EPA). (2024, Aug. 30). *Overview of CWA section 401 certification*. https://www.epa.gov/cwa-401/overview-cwa-section-401-certification.

U.S. Environmental Protection Agency (EPA). (2025). *Current implementation of waters of the United States*. https://www.epa.gov/wotus/current-implementation-waters-united-states#Current%20Definition.

U.S. Environmental Protection Agency (EPA) and U.S. Army Corps of Engineers. (2020, Jan. 23). *Overview of the Navigable Waters Protection Rule*. https://19january2021snapshot.epa.gov/sites/static/files/2020-01/documents/nwpr_fact_sheet_-_overview.pdf.

U.S. Fish and Wildlife Service (USFWS). (2002, Mar.). *Geographically isolated wetlands*. Chicago State University. https://www.csu.edu/cerc/researchreports/documents/GeographicallyIsolatedWetlands2002.pdf.

U.S. Fish and Wildlife Service (USFWS). (2024, Mar. 2). *Continued decline of wetlands documented in new U.S. Fish and Wildlife Service report*. https://www.fws.gov/press-release/2024-03/continued-decline-wetlands-documented-new-us-fish-and-wildlife-service-report#:~:text=The%20report%20shows%20wetland%20loss,change%20and%20threats%20to%20biodiversity.

U.S. Fish and Wildlife Service (USFWS). (2025a). *North American Wetlands Conservation Act*. https://www.fws.gov/law/north-american-wetlands-conservation-act.

U.S. Fish and Wildlife Service (USFWS). (2025b). *Wetland easements*. https://www.fws.gov/service/wetland-easements.

University of Tennessee (UT) School of Natural Resources. (2024, Feb. 9). *Benefits of isolated wetlands in Tennessee*. https://naturalresources.tennessee.edu/benefits-of-isolated-wetlands-in-tennessee.

Utah Department of Environmental Quality (2024, Dec. 2). *401 Water Quality Certification Program*. https://deq.utah.gov/permits/401-water-quality-certification-program.

Utah Division of Water Quality (2023, Oct. 10). *Wetlands Program*. https://deq.utah.gov/water-quality/wetlands-program/wetlands-program.

Utah Division of Water Rights. (2024). *Stream Alteration Program*. https://waterrights.utah.gov/strmalt/.

Utah Division of Wildlife Resources. (2000, May). *A Landowner's Guide to Utah Wetlands*.

https://geology.utah.gov/docs/gwp/A-Landowners-Guide-to-Utah-Wetlands_v2.pdf.
Utah Division of Wildlife Resources. (2002, Aug.). *Citizen's Guide to Monitoring Wetlands in Utah*. https://geodata.geology.utah.gov/pages/download.php?direct=1&noattach=true&ref=8366&ext=pdf&k=.
Utah Geological Survey. (2024). *Wetlands on private land*. https://geology.utah.gov/water/wetlands/wetlands-on-private-land/.
Utah Physicians for a Healthy Environment. (2022). *Inland port*. https://www.uphe.org/priority-issues/inland-port/.
Washington State Department of Ecology. (2023, June 5). *Wetlands remain protected in Washington state despite recent U.S. Supreme Court ruling*. https://ecology.wa.gov/about-us/who-we-are/news/2023/june-5-wetlands-permitting#:~:text=Wetlands%2C%20seasonal%20streams%2C%20and%20other,for%20waters%20under%20federal%20oversight.
Werner, K.S. (2023). Building a lasting natural heritage legacy for Missouri wetlands. *Missouri Natural Areas Newsletter, 23*(1), 3-8. https://www.naturalareas.org/docs/Building_a_Lasting_Natural_Heritage_Legacy.pdf.
Whitaker, B. (2024, May 21). *A call from the top – Gov. Cooper's executive order provides critical roadmap for NC wetlands*. North Carolina Wildlife Federation. https://ncwf.org/blog/wetlands-executive-order/.