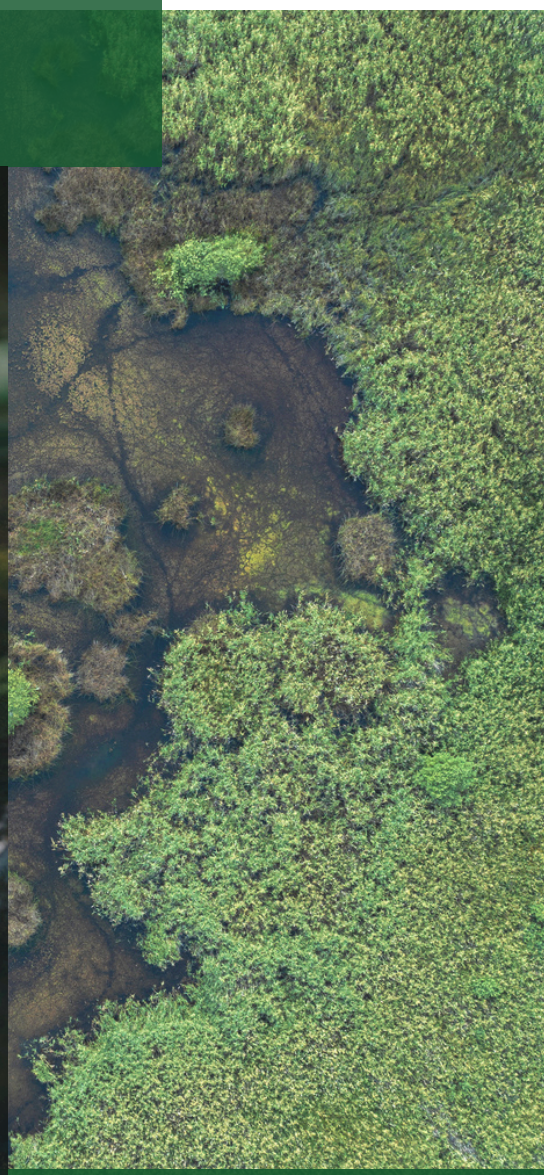
THE LOCAL WETLAND PROTECTION PLAYBOOK

ARKANSAS



Tools to Help Cities, Counties, and Communities Protect Their Natural Assets

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Acknowledgments

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Authors' Note: The LWPP is meant to be a "living" resource that evolves over time and is updated periodically, both to maintain its accuracy and relevance and to reflect stakeholders' feedback and interests. This edition, Arkansas Edition 1.1, reflects one round of review by and feedback from Arkansas stakeholders including local officials, conservation groups, and current and former state agency staff, collected in spring 2026. To provide feedback or suggestions for the next edition, please write to Amy Reed at **reed@eli.org** to share information directly or set up a time to talk.

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Introduction

Wetlands cover approximately 8% of Arkansas's land surface.[1] Most of the state's wetlands are riverine and depressional types that are linked to the Mississippi River and its main tributaries.[2] These regions are often called "bottoms" or bottomland hardwood forests.[3]

The largest wetland areas in Arkansas are located along major rivers, including the lower Mississippi, Arkansas, Red, White, and Little Rivers, as well as their main tributaries within the Mississippi Alluvial Plain, South Central Plains, and Arkansas Valley ecoregions.[4] Additional wetlands are dispersed across the state, with many associated with springs and seeps in the Ouachita Mountains and Ozark Highlands.[5]

Since the first European settlements in the region, wetlands have been disappearing. The loss did not happen all at once, but slowly over time, as wetlands have been drained, filled, ditched, leveed, and paved in the name of agricultural and other development.[6] **Arkansas has lost over 70% of its wetlands** since the 1780s, making it the state with more wetland acres lost than any other inland state in the nation.[7] What were once vast, living "mosaics" of marsh, swamp, and floodplain have been reduced to smaller, fragmented areas, as wetlands were treated as obstacles to development rather than hard-working natural infrastructure.
Now, as human understanding of "ecosystem services" has grown, it has become clear that **wetlands' value is not theoretical: it is physical, measurable, and tied closely to the safety and livelihoods of our communities**.
When wetlands are lost, the services they provide must be paid for in other ways by downstream neighbors, utilities, consumers, farmers, insurers, taxpayers, and the next generation.

Our remaining wetlands are valuable natural assets that we cannot afford to lose, and every restored wetland represents an investment that compounds over time, delivering benefits year after year. This means every land use and infrastructure decision that recognizes wetlands as natural assets is a step toward a future where communities work with water more efficiently, rather than continuing to spend resources over and over to react to floods, droughts, and pollution. **Protecting wetlands is not just an environmental goal. It is a practical long-term investment in our communities' resilience, safety, and prosperity.**

Natural Capital: Why Wetlands Are So Valuable to Communities

As a transitional zone between land and water, wetlands have a unique position in the landscape, and many types of wetlands are among the **most productive ecosystems on earth.** Wetlands provide value for the land and wildlife and prevent harm to communities and the environment.

Wetlands perform many different functions. They sustain plant and animal habitats and ecosystems, but they also have tangible benefits for human communities. Wetlands act like natural sponges that store, slow down, and filter stormwater, and these functions have real economic benefits: flood control and mitigation, storm abatement and stormwater management, recharge of groundwater supplies, and water quality improvement. Wetlands' support of healthy fisheries and game habitat can increase local tourism revenue, and the value of recreational opportunities, nature, and open space to people's physical and mental health is well documented.[8]

FLOOD CONTROL: Wetlands **lessen the impact of floods** by intercepting water from heavy rain or snowfall, storing the water like a sponge, and slowly releasing it, which reduces peak flood levels. These flood control functions are extremely important in the overall landscape and can help to avert the devastating costs of flooding to downstream urban, suburban, and agricultural lands and structures. The flood control functions of wetlands are extremely important to the maintenance of property values and thriving communities.

EROSION CONTROL AND NUTRIENT ABSORPTION: Wetlands buffer against erosion along rivers and streams caused by storms and help keep the soil on the fields. On farms with drainage tiles, restoring or constructing small wetland areas at the edge of fields can filter out over half of the nitrates from draining water before it returns to a nearby ditch or waterway.[9] (Nutrients are then available for uptake by wetland plants instead of being discharged into surrounding waters.)

SURFACE AND GROUNDWATER PROTECTION: In addition to improving quality of water by filtering pollutants, wetlands **help maintain groundwater aquifers' supply** by collecting and storing water from rain and surface flows (keeping it inside the recharge zone), then slowly releasing it back into the ground. This means that in areas that depend primarily on groundwater for drinking water and irrigation supplies—like the Arkansas Delta depends on the Mississippi River Valley Alluvial Aquifer— the protection of wetlands can be especially important.

Consider: Nature-Based Solutions Are Gaining Momentum

Historically, flood hazard mitigation strategies in the Mississippi River Basin primarily focused on building flood control works like dams and levees. While this approach surely reduced the severity of many impacts, the failure of these traditional "hard" engineered solutions in the Great Mississippi River Flood of 1993 led to recognition of the importance also of the natural hazard mitigation functions of wetlands and natural habitats.

In recent years, more emphasis has been placed on "non-structural" and "nature-based" solutions, such as the restoration of natural habitats like wetlands, as cost-effective alternatives for flood hazard mitigation that also help achieve conservation goals like maintaining biodiversity and social goals like providing outdoor space.

FISH: Wetlands are important habitat for **healthy communities of fish and shellfish.** As wetlands remove, process, and discharge organic and inorganic material in the waters they hold, these areas serve as valuable sinks, sources, and transformers of the compounds that are utilized by growing plants and animals. Wetlands are used by many fish for breeding and spawning, and many species spend their entire lives in these areas. In fact, almost all species of freshwater fish are dependent on wetlands to some degree. Over 95% of the commercially harvested fish and shellfish species in the United States are at least partially wetland-dependent.[10] The fishing industry is important to the local culture and economy of many areas, and it contributes a large amount of money to the regional economy.

PLANTS AND WILDLIFE: Wetlands perform many functions related to plant and wildlife habitat. By some estimates, almost 80% of America's total breeding bird population, and more than half of the 800 species of protected migratory birds, rely on wetlands for habitat, cover, and reproduction. This means the **hunting and birding communities have a vested interest in protecting and restoring the wetlands that provide habitat and breeding grounds** for the birds and animals with which they are concerned. Because hunters, sport fishermen, and bird watchers directly purchase equipment and spend a significant amount of money on travel-related expenses, including food and lodging, wetlands can provide a significant source of income for local economies.

COMMUNITY VALUES: Wetlands can serve as a valuable **amenity to communities**. In addition to the flood control, water quality, and water supply benefits, they provide open space and opportunities for local recreation like hunting, fishing, birding, hiking, and paddling. Privately owned wetlands can also help increase the value of the adjacent upland areas of a parcel of land.

Ecosystem Services Benefits

- Flood control
- Stormwater absorption
- Groundwater recharge
- Water quality improvement
- Air temperature regulation
- Air quality improvement and carbon absorption
- Education opportunities

Community Benefits

- Increased property values near open space
- Money and jobs from recreation and tourism
- Better quality of life (e.g., physical and mental health)
- Stronger sense of place

Habitat Benefits

- Habitat for native species
- Biodiversity benefits
- Habitat for rare or endangered species
- Habitat corridors
- Stopover sites for migratory birds
- Pollinator habitat

Making the Case for Wetlands' Economic Value to Arkansans

Protecting or restoring wetlands is like maintaining a **critical piece of infrastructure:** sustained investment provides benefits for current residents and future generations, while neglect can lead to costly failures including degraded ecosystems and increased flood risks to communities. It is difficult to capture the full value of wetlands using traditional economic methods and tools because wetlands provide such a broad range of interrelated ecological and social benefits.[11] Some of the benefits are especially hard to put a number on – for example, the physical and mental health benefits of open space, and the value of ecosystems protected over the long-term. However, some of the benefits *can* be easily counted in dollars, and the figures make a compelling case.

For instance, economic researchers have assigned monetary value to certain wetland services (e.g., waterfowl recreation, nitrogen reduction) in the Mississippi Alluvial Valley, which includes the Arkansas Delta.[12] That study found that the "social welfare value" of *just a few of the many wetland services* was worth upwards of $1,400 per hectare per year – meaning the value of restored wetlands can exceed the cost of public investment in restoration within a single year, with returns continuing far into the future (and exceeding landowner opportunity costs). Another study conducted in 2022 by researchers at University of Arkansas at Pine Bluff and their partners examined the impact of wetland conservation on property values. While the study approach was quasi-experimental, they found that Arkansas property values rose up to 10% near wetland restoration sites.[13] A study published in the journal *Land* estimated that the ecosystem services benefits of wetlands mitigated under Clean Water Act Section 404 permits had an average economic value of more than $2,000 per acre per year in Arkansas between 2010-2012.[14]

These studies help prove that wetland restoration in Arkansas can generate real, measurable public and private benefits. **Communities that invest in wetland restoration can capture real economic gains in addition to the ecological improvements that restored and protected wetlands can provide.**

Bottomland hardwood wetlands may provide over $1,400/hectare per year in ecosystem services

Jenkins et. al (2010) found that restored bottomland hardwood wetlands generate approximately $1,435–$1,486 per hectare per year in social value from ecosystem services such as nutrient removal, recreational benefits, and greenhouse gas mitigation.

Property values are up to 10% higher for homes located near restored wetlands

Richardson et. al (2022) concluded that for the area studied in Arkansas, home values were 6-10% higher for properties located within 10km (around 6 miles) of a wetland restoration site.

Wetland mitigation is valuable

A 2015 study published in *Land* estimated that the ecosystem services benefits of wetland mitigation had an average economic value of more than $2,000 per acre per year in Arkansas between 2010-2012.

The Roles of Government: Federal, State, and Local Responsibilities

Wetlands are an important part of the local and regional landscape. Although wetlands are sometimes seen as primarily a federal or state responsibility, they perform many functions that contribute to local economic performance, healthy water and ecosystems, and quality of life. There are key roles for federal, state, and local governments in protecting wetlands and the services they provide to communities. Before taking on the task locally, it is important to understand the federal and state regulatory overlay. The following descriptions briefly summarize the major federal and state regulatory laws and programs that protect Arkansas's wetlands, setting the stage for the Playbook's discussion of the many strategies and tools that local governments can use to help fill gaps in federal and state coverage and protect their wetlands on their own terms. (These descriptions are intended to provide context but should not be relied upon as a full statement of all legal requirements that may be relevant to local government decision-making.)

Federal Wetland Protection

The federal government plays an important but limited role in wetland protection across the country. Federal law authorizes federal agencies to **directly regulate** activities that impact certain wetlands and provides several mechanisms that indirectly affect how wetlands are managed and conserved. The following is a summary of the major federal statutes and regulations that advance wetland protection in the United States. *(Part II of the Playbook discusses the other side of the coin: federal incentives for voluntary wetland conservation or restoration.)* The discussion describes what the laws do cover, but it also points out the key gaps in federal coverage—i.e., places where the federal law(s) do(es) not cover certain wetlands or activities—that provide opportunities for states, cities, and counties to step in and protect wetlands on their own terms.

The federal government's role is limited but important.

Background: the Clean Water Act and "Cooperative Federalism"

The federal government's authority to regulate activities that affect waters and wetlands comes from the Clean Water Act. The Clean Water Act is a federal law that establishes various programs that protect surface water quality, in part by placing limits on how much pollution can enter rivers, lakes, oceans, and some streams and wetlands. These limits are enforced by requiring permits for activities that can contribute to water pollution—like construction, dredging a water bottom or wetland, placing fill material into a waterbody or wetland, and end-of-pipe waste and stormwater discharges—even when they take place on private property. (However, based on exceptions written into the law by Congress, agricultural activities generally do not require permits in situations where other industries do.)

"Cooperative federalism" is a buzzword used to describe a governance structure like the one created by the Clean Water Act: a system where Congress is responsible for setting national goals and minimum standards, but the states are given the lead role in implementing and enforcing those standards within their jurisdictions. The cooperative federalism model is useful where activities in one state can affect one or more other states' environmental quality, since air and water pollutants can travel freely across political borders. In many cases, states are allowed to go further than the national minimum standards —which function as a kind of "floor" level of environmental protection—and establish stricter rules that apply within their own boundaries. With states largely in charge of the implementation and enforcement functions, cooperative federalism strikes a balance between the need for a national floor and respect for the traditional power of states to regulate (or decide not to regulate) land and water uses.

Rolling Back the Reach of the Federal Government

Over the last few years, the Supreme Court, U.S. Environmental Protection Agency (EPA), and U.S. Army Corps of Engineers (Corps or USACE) have made a series of decisions that shift the balance of responsibilities for wetland protection away from the federal government. By shrinking the definition of the legal term "waters of the United States" (WOTUS), these decisions have reduced the number and extent of freshwater wetlands that are covered by the Clean Water Act's permitting programs. For decades, wetlands that had an ecological and/or underground connection to larger waterbodies qualified for Clean Water Act permit programs. Now, federal coverage is determined by the concept of "relatively permanent" water—meaning surface water is visible at least during the wet season—with a "continuous surface connection" to an ocean, lake, river, or stream that you can navigate in a traditional boat or canoe. Moving forward, the Clean Water Act will only cover wetland areas that are directly touching a relatively permanent water and are covered with surface water (at least during the wet season) in their own right.

The practical result of these changes is that **most of the freshwater wetlands that used to fall under Clean Water Act jurisdiction will no longer be protected under this fundamental law.** The national floor for wetland protection has been drastically lowered, leaving it up to state and local governments to find the authority, capacity, and funding to fill the new gaps in protection.

Core Regulatory Programs Affecting Wetlands

The Clean Water Act (CWA) creates a range of federal programs concerning water quality, some of which are "regulatory"—meaning the program creates enforceable rules about land and water use that must be followed even on private property— and others which are voluntary and/or incentive based. (*See Part 2 of the Playbook*.) This section briefly explains five of the CWA regulatory programs that affect wetlands, with a focus on the two that historically have been the most important for wetland protection: the regulation of "dredge and fill" activities by the U.S. Army Corps of Engineers under **Section 404** and the review of proposed federal licenses and permits by state water quality programs under **Section 401**. Among other purposes, **these programs help to limit the loss of wetland area and wetland functions** (e.g., flood control). These are also the programs where the effects of recent changes to the WOTUS definition (see above) are likely to be visible sooner than later in the agencies' day-to-day permit and approval decisions.

Key CWA Sections Affecting Wetlands (Regulatory)

- **Water Quality Standards**
  33 U.S.C. § 1313(a)
- **Assessment and Restoration Planning**
  33 U.S.C. § 1315(b), 33 U.S.C. § 1313(d)
- **Regulation of "Point Source" Pollution (NPDES Permits)**
  33 U.S.C. § 1343
- **State Review of Federal Licenses/Permits (Section 401)**
  33 U.S.C. § 1341
- **Regulation of Dredging and Filling (Section 404 Permits)**
  33 U.S.C. § 1344

Water Quality Standards

The CWA requires all states (as well as territories and authorized tribes) to establish **baselines for the overall water quality** for all WOTUS, including WOTUS wetlands, within their respective boundaries (30 U.S.C. § 1313(c)). These baselines are expressed as water quality standards (WQS). Several CWA programs, described below, depend on WQS to determine which waters need pollution reduction, how much pollution can be discharged into these waters, and what controls are needed to protect these waters. To establish WQS, states must: designate a use or uses for the WOTUS (or WOTUS segment) within their jurisdiction; establish numeric and/or narrative criteria to protect the designated use(s); and include (or reference) the state's policy that explains how the state will ensure that existing uses will be protected and maintained (40 C.F.R. § 131.6). EPA must review and approve all new or revised WQS, and states must review their existing WQS every three years to determine if revisions are needed.

A handful of states have wetland-specific WQS, and others apply non-wetland-specific WQS to wetlands. As of early 2026, Arkansas does not have wetland-specific WQS; however, state law says that in determining whether the designated use of an "extraordinary resource water," "ecologically sensitive waterbody," or "natural and scenic waterway" should be maintained for a given water body, the DEQ should consider "the extent to which water quality and physical habitat, including wetlands, support other plant or animal life" (AAC 118.01.2 App. E).

Assessment and Restoration Planning

Using "all existing and readily available information," **states must regularly assess and identify waters that either are not or will not meet applicable WQS** despite the application of certain pollution controls (30 USC § 1313(d). States must then compile a list of these "impaired" waters, assign them a priority for future development of a Total Maximum Daily Load (TMDL) or other restoration approach, and submit the list to EPA for its approval every two years (i.e., a 303(d) list).[15] Once EPA approves the 303(d) list, states must develop a TMDL for each "listed" water/pollution combination. A TMDL represents both a plan for impaired waters to attain WQS and a calculation of the maximum amount of that pollutant that a water can hold without exceeding applicable WQS (e.g., the "path" and the "math" for addressing an impaired water).

Once EPA approves TMDLs, they are implemented through different means. For example, municipal and industrial wastewater treatment plants may need to install new pollution control technologies; existing CWA permits may need revision; or, depending on the nature of the impairment, states may address the impairment through their state-run nonpoint source management programs under Section 319 (discussed later). If a WOTUS wetland is impaired and the 303(d) list, that wetland may need its own TMDL. **Wetland restoration can also be used as a TMDL implementation strategy** to help meet pollution reduction targets for other impaired WOTUS.

Regulation of "Point Source" Pollution (NPDES) Permits

The CWA prohibits the *unpermitted* discharge of any pollutant(s) from any "point source"—meaning a pipe, channel, or other discrete "conveyance"—into WOTUS (33 U.S.C. § 1311). One key permit program is NPDES, administered by the EPA and authorized states, which **translates the CWA's general requirements and prohibitions into rules for individual situations**. NPDES permits limit what pollutants the permittee can discharge; require the permittee to perform monitoring and reporting; and contain other requirements to ensure the discharge does not affect water quality or human health. Once issued, NPDES permits are good for up to five years (40 C.F.R. pt. 122).

Methods for permittees to comply with their NPDES permits can vary—some permits are written to let the permittee choose which pollution control technologies are needed to achieve an acceptable level of pollutants in a discharge; others call for using "best management practices" or impose other special conditions, e.g., installing a screen barrier over a pipe to keep trash out of the receiving water (40 C.F.R §§ 122.44, 125.3). If monitoring and/or reporting show that a permittee is not in compliance with the permit, the EPA or the state can pursue enforcement actions (33 U.S.C. § 1319).

Under the CWA, a discharge of any pollutant(s) from a point source into a WOTUS wetland will require a NDPES permit. In these cases, the permittee must ensure that their discharge does not cause violations ("exceedances") of any state water quality standard that applies to that particular wetland.

Water Quality Certification (Section 401)

The CWA requires applicants for federal licenses or permits to conduct activities that may result in any discharge to WOTUS to obtain certification from the state or authorized tribe in which the discharge originates (or will originate) that the activity will comply with the applicable water quality requirements, including WQS (33 U.S.C. § 1341). This process permits the states to approve, approve with conditions, deny, or waive the request for certification. A state's denial of a certification request functions as a veto for the federal permit application. When granting a Section 401 certification, states can include conditions, including "effluent limitations and other limitations, and monitoring requirements," necessary to assure that the proposed discharge complies with the CWA, any applicable WQS, and "other appropriate requirements of state law" (Id). Projects that trigger the 401-certification process include projects that alter wetlands (e.g., Section 404 permits, described below). In these instances, states have latitude to condition certification approval on compliance with WQS (and wetland-specific WQS, if applicable) to require minimization of wetland impacts.

Regulation of Dredging and Filling (Section 404 Permits)

Another key permitting program under the CWA regulates the discharge of dredged and "fill" material into WOTUS, including WOTUS wetlands; these are known as Section 404 permits. "Dredged material" means any material that is excavated or dredged from a waterbottom. "Fill material" means gravel, clay, soil, or other material that gets placed or dumped into a WOTUS (33 C.F.R. § 323.2). In other words, **if someone wants to dig in or put dirt, rock, or other material into a WOTUS wetland or waterway — for example, to build a road, house, or factory — they generally will need a Section 404 permit** from the U.S. Army Corps of Engineers.[16] Common types of activities that trigger the need for Section 404 permits include the construction of dams, levees, highways, airports, and mining projects. Certain activities, like those associated with farming and forestry, are exempt from Section 404 permitting.

When applying for a Section 404 permit, the applicant must show that steps have been taken to avoid impacts to wetlands, streams, and other aquatic resources; that potential impacts have been minimized; and that the permittee will use "compensatory mitigation" to make up for all remaining impacts that cannot be avoided (e.g., by restoring wetlands at another location in the same watershed). Depending on the level of impacts, an applicant will either: *(1)* obtain an individual permit; or *(2)* seek coverage under an existing general permit. If the proposed activity has only minimal adverse effects and the project type is covered by one of the 50+ general permits that have been issued to cover whole categories of activities (e.g., residential developments; oil or natural gas pipeline activities), the applicant can let the Corps know and comply with any conditions in the general permit (33 C.F.R. § 323.2). An individual permit is needed for proposed activities that will have significant impacts.

The Section 404 program is the primary federal regulatory program for deciding which WOTUS wetlands can be filled, under what conditions, and how lost wetland functions will be compensated. Historically, this federal program has provided invaluable protection to wetlands and their ecological functions; however, as noted previously, recent changes at the federal level have significantly decreased the number of wetlands to which the Section 404 program applies.

Applying Section 404 in Arkansas

For projects involving dredge and fill of WOTUS wetlands in Arkansas, the U.S. Army Corps of Engineers is responsible for issuing Section 404 permits. Only the Corps is allowed to make the official determination that wetlands on a property are WOTUS (in other words, "jurisdictional") or not under the Clean Water Act. State agencies, consultants, and maps can help inform the decision, but the official decision is made by the Corps.

The state of Arkansas happens to be divided between three different Army Corps districts: the Little Rock District is responsible for most of Arkansas; the Vicksburg District is responsible for much of southern Arkansas; and Memphis District is responsible for a portion of eastern Arkansas. To determine what district you are in, visit the Corps Headquarters website: https://www.usace.army.mil/locations.aspx. For information on how to submit a Section 404 Permit application, you can contact the appropriate district's permit manager.

The Swampbuster Program

Under the Food Security Act of 1985 (16 U.S.C. § 3811), the Natural Resources Conservation Service (NRCS)—which is part of the Department of Agriculture (USDA)—operates what is commonly known as the Swampbuster Program. **Swampbuster discourages farmers from draining or filling wetland areas by offering powerful incentives: eligibility for important USDA benefits**. In simple terms, if a farm destroys certain wetlands in order to grow crops, they can lose their access to crop insurance subsidies, disaster funds, loans, conservation payments, and/or commodity program payments.[17] Unlike truly "regulatory" programs, Swampbuster does not actually give the agency authority to *stop* farming activities or make landowners pay fines. Instead, it discourages the "conversion" of wetlands into new croplands by leveraging the importance of federal benefits to most farmers' bottom lines.

It is NRCS's job to determine whether a certain piece of land qualifies as a "wetland" under Swampbuster. The NRCS evaluates whether the land in question meets three criteria: *(1)* soil that shows characteristics of being wet during the growing season ("hydric soil"), *(2)* signs that water is found at or near the surface during the growing season ("wetland hydrology"), and *(3)* the presence of plants that are typically found in wetlands ("hydrophytic vegetation").[18] It is important to emphasize that the test NRCS uses to decide if an area is a wetland for Swampbuster purposes is different from the WOTUS test used by the Army Corps for Section 404. In practice, **this means the Swampbuster Program still covers some agricultural and ranch wetlands that are no longer within the Army Corps' regulatory jurisdiction**.

State Agencies Involved in Wetland Protection

Arkansas does not have a statewide wetland regulatory scheme that goes beyond the state's role in implementing the federal Clean Water Act. The state's regulatory oversight of wetlands is generally limited to participation in the Section 401 certification process and adoption of associated state water quality standards, which are developed under the Arkansas Water and Air Pollution Control Act. However, there are two other state laws that help support wetland restoration and conservation: the Wetland and Riparian Zone Creation, Restoration, and Conservation Tax Credits Act (Tax Act) and the Arkansas Wetlands Mitigation Bank Act (Mitigation Bank Act). While the Tax Act is being actively implemented, the regulations implementing the Mitigation Bank Act have been repealed and there is currently no program operating under that law.

The State's Role in Implementing the Clean Water Act

As mentioned previously, a body of freshwater like a river, stream, wetland, lake, pond, or other surface water is covered by the regulatory programs of the federal Clean Water Act (CWA) if it is a "water of the United States," also referred to by the nickname WOTUS. In the last few years, the U.S. Supreme Court and federal agencies have issued legal and regulatory decisions that add up to many fewer freshwater wetlands having WOTUS status. Moving forward, freshwater wetlands that are not legally considered "connected" (by surface water, not counting underground flows and groundwater) to a bigger stream, river, or lake will no longer be protected from development and pollution under federal law, which many states (including Arkansas) also rely on to set the scope of their state law coverage. Due to these changes in the definition of WOTUS and the shrinking of coverage under the Clean Water Act, it has never been more important for local governments like cities, towns, and counties to step up and protect their valuable wetland assets on their own terms.

The question of WOTUS status is important for wetlands because it triggers a range of requirements and protections for that wetland under the Clean Water Act. These include permit requirements for "point source" (end-of-pipe) discharges, dredging, and the placement of "fill" material into WOTUS. The WOTUS status also means that the state must develop and apply water quality standards, which are used to measure whether waters are "impaired" (i.e., not meeting the applicable water quality standards) and prepare plans to "restore" their health. The state also uses these water quality standards when it is reviewing federally-issued licenses and permits that might result in discharges. **On the other hand, non-WOTUS wetlands are only protected from discharges of pollutants and disposal of dredge and fill material if the state or local government has adopted stricter water quality and/or wetland fill rules than the Clean Water Act**.

Does Arkansas regulate wetland filling beyond Clean Water Act jurisdiction?

The short answer is no. Unlike some states, Arkansas does not have a state wetland regulatory scheme that goes beyond the state's role in implementing the federal Clean Water Act with regard to wetland filling. This means the state's regulatory oversight of wetland filling is generally limited to adopting water quality standards and participating in the Clean Water Act § 401 water quality certification process.

A longer answer involves the difference between the plain language of Arkansas law and how the law is actually implemented. The definition of "waters of the state" from the Arkansas Water and Air Pollution Control Act is broad: "all streams, lakes, marshes, ponds, watercourses, waterways, wells, springs,

irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion of the state." (Ark. Code § 8-4-102.) In other words, the definition of "waters of the state" technically includes more than just WOTUS. However, in practice Arkansas has relied heavily on federal Clean Water Act mechanisms rather than establishing independent state wetland definitions or protections.

Short-Term Activity Authorizations

In Arkansas, an approval known as a Short-Term Activity Authorization (STAA) **is used to authorize a temporary violation of a state water quality standard (e.g., turbidity from construction) in regulated waters,** usually requiring the project proponent to take some steps to minimize pollution during work. The STAA is derived from the state's water quality standards authority under the Clean Water Act (discussed in the previous section). The state maintains a **database** tracking STAAs alongside Section 401 certifications. To obtain an STAA, applicants use an e-portal linked on the ADEQ **website**.

Arkansas is one of the 24 states that have not established an independent, state-level wetland protection program.

This means the **federal government's definition of WOTUS is used to determine whether a given land development or other project will need a permit** before conducting activities that involve dredging or filling in a wetland area.

If your project might involve wetlands or waters of the state, ADEQ's website instructs you to start by consulting the Corps of Engineers for a jurisdictional determination, then coordinating with ADEQ as needed for a Section 401 certification and STAA.

What is an STAA used for?

In 2017, the Arkansas legislature passed a law clarifying that ADEQ "may authorize short-term activities that have potential to affect compliance with Arkansas water quality standards if: (A) The short-term activity is essential to the protection or promotion of the public interest; and (B) No permanent or long-term impairment of beneficial uses is likely to result from the short-term activity." (Ark. Code. § 8-4-234.) The law provides non-exhaustive list of examples of activity types that could be eligible for the STAA, including dredge and fill projects, algae and weed control, construction activities, and "[a]ctivities that result in overall enhancement or maintenance of beneficial uses." (Id.) The **ADEQ website** notes that the latter category can include flood control, bank stabilization, and debris removal projects. The director of ADEQ is required to determine "necessary conditions" for the STAA (i.e., practices to limit the amount and duration of the water quality standard exceedance). According to ADEQ, an STAA cannot be used for an activity with an adverse impact on any federally listed threatened or endangered species or their critical habitat.[19]

How does an STAA relate to other permits?

The ADEQ is clear that an STAA does not fulfill or replace the need for a construction stormwater permit and best management practice (BMPs) under a NPDES stormwater permit, which is required for development on construction sites greater than one acre. A project covered by an STAA may also require a Section 404 permit from the Corps, permission from the local government if the activity is covered by a Municipal Separate Storm System (MS4) permit, or a local floodplain or grading permit, depending on the specific situation.[20]

Does the STAA requirement apply to non-WOTUS wetlands?

Based on how the law is implemented, an STAA can apply to projects affecting non-WOTUS wetlands, but only indirectly. The STAA regulates activities that involve "entry into and disturbance of waters of the state."[21] If construction activities in or near a non-WOTUS wetland would cause sediment or other pollutants to enter a regulated waterbody, the state may require an STAA to control those short-term impacts using best management practices and time limits. In that sense, STAA can reach activities occurring in non-jurisdictional marshes when they have downstream water quality consequences.

The term "waters of the state" is defined broadly in Arkansas to include "marshes," which could in theory include non-WOTUS wetlands (e.g., isolated wetlands). However, the STAA is not utilized by the state as a wetland permitting mechanism and does not regulate permanent fill, drainage, or conversion of non-WOTUS wetlands. **The STAA is a tool to help mitigate temporary construction impacts; it is not meant to provide independent regulatory protection for non-WOTUS wetlands in Arkansas.** This means that a project that alters a non-WOTUS wetland typically should only trigger the STAA requirement if it causes a measurable violation of a water quality standard in another water or wetland that is regulated under CWA authority.

State Agency Roles in Wetland Conservation, Restoration, and Funding

Arkansas does not have a single state agency in charge of overseeing wetland protection, management, and enforcement. Instead, these roles are divided among several different agencies:

Arkansas Department of Energy and Environment

KEY WETLAND-RELATED RESPONSIBILITIES: Implementing Clean Water Act regulatory programs for WOTUS wetlands; issuing Section 401 certifications and STAAs

The Arkansas Department of Energy and Environment is an "umbrella" department that absorbed two former agencies in 2019 as part of an effort to shrink the government: the Arkansas Pollution Control and Ecology Commission (PC&EC) and the Division of Environmental Quality (ADEQ). These two agencies work together closely, but they have different powers and duties. In general, **PC&EC is in charge of crafting and adopting the state's environmental policies as regulations, and DEQ is in charge of implementing those policies through regulatory programs** (permitting, licensing, certification, enforcement) and grant programs. (Ark.Code. § 8-4-201.) These policies include (but are not limited to) the state water quality standards (8 CAR § 21-101) and the rules for the state administration of NPDES (8 CAR § 25-101). In addition to overseeing implementation of environmental regulations, ADEQ is also responsible for providing technical and legal expertise and assistance with environmental issues to other state agencies. (Ark. Code. § 8-1-202).

Arkansas Department of Agriculture

KEY WETLAND-RELATED RESPONSIBILITIES: Administering funding programs; leading statewide efforts and providing technical support to plan, conserve, and develop water resources; supporting conservation districts and landowners regarding protection, restoration, and improvement of the state's wetlands

The Arkansas Department of Agriculture houses the Natural Resources Division (NRD), the Arkansas Natural Resources Commission (ANRC), the Forestry Division, and the Arkansas Forestry Commission. The NRD administers rules promulgated by the ANRC. The ANRC—composed of nine governor-appointed and senate-confirmed members —"adopts, modifies, and enforces rules related to water conservation, development, management, and planning."[22]

The NRD is also responsible for developing and maintaining the **Arkansas Water Plan, a comprehensive development and management program for the state's water resources**. (§ 15-22-503; Ar. Exec. Order No. 23-27). Additionally, the NRD implements the Wetland and Riparian Zones Tax Credit Program, which grants state income tax credits to "taxpayers who engage in the development, restoration, or conservation of wetland and riparian zones" through projects approved by the Department of Agriculture. (Ark. Code. § 26-51-1505.) *(More information about the tax credit program is found later in the Playbook, in the discussion of state-led economic incentives for landowners in Part 2.)*

The Arkansas Forest Commission advises the Forestry Division, whose mission is to protect forests from fire and natural hazards while promoting forest health, stewardship, development, and conservation. In addition to assisting with sustainable timber practices in the state, the Forest Commission also provides information and site recommendations for the protection, restoration, and improvement of the state's water and wetland resources.[23]

Arkansas Game and Fish Commission

KEY WETLAND-RELATED RESPONSIBILITIES: Overseeing millions of acres of wildlife management areas, including greentree reservoirs (GTRs), moist-soil units, and other wetland types; providing conservation incentives for waterfowl habitat on private lands; leveraging federal funding and public-private partnerships for wetland conservation and restoration

The Arkansas Game and Fish Commission (AGFC) also shares responsibility for managing some wetland-related activities. The constitutional amendment that created the AGFC provides that "the control, management, restoration, conservation and regulations of birds, fish, game, and wildlife resources of the State, including hatcheries, sanctuaries, refuges, reservations and all property now owned, or used for said purposes and the acquisition and establishment of same, the administration of the laws now and/or hereafter pertaining to, shall be vested in a Commission to known as the Arkansas State Game and Fish Commission." (Ark. Const. amend. XXXV § 1.)

Based on this authority, AGFC oversees 3 million acres of Wildlife Management Areas in the state, many of which include bottomland hardwood forests, greentree reservoirs, moist-soil units, and other wetland habitat types.[24]

On the funding side, AGFC is responsible for providing conservation incentives for waterfowl habitat on private lands, as well as leveraging federal funding (e.g., through the North American Wetlands Conservation Act) and organizational partnerships (e.g., Ducks Unlimited). *More information on financial incentives for landowners is found later in the Playbook.*

The AGFC is also responsible for providing comments and recommendations on behalf of the state under the federal Fish and Wildlife Coordination Act, which applies whenever a stream or body of water is modified by a federal agency or private party whose action requires a federal permit (16 U.S.C. § 662).

Arkansas Natural Heritage Commission

KEY WETLAND-RELATED RESPONSIBILITIES: Managing high-quality, ecologically significant wetland communities that are part of the System of Natural Areas; participating in conservation partnerships; maintaining and sharing scientific data

Established in 1973, the Arkansas Natural Heritage Commission (ANHC)'s primary role is to operate the state's nature preserve system, which it does through the acquisition and dedication of natural areas, adopting natural area management plans, and establishing rules and regulations pursuant to this mission. (Ark. Code. § 15-20-308.) Through this program, ANHC "works to conserve the Arkansas biodiversity by identifying ecologically important areas and setting priorities for their protection and the species that inhabit them."[25] The **System of Natural Areas** is intended to "provide[] long-term protection to some of the state's most ecologically significant lands," including forested wetlands like those found in the Cache River Natural Area.[26]

On the data side, the ANHC maintains a natural heritage inventory to "aid the commission in making sound land protection decisions." Per state policy, the ANHC "shares inventory information with all who need it for educational purposes, research, and planning economic development, in accordance with the policy of the State of Arkansas to strike a proper balance among population growth, economic development, environmental preservation, and ecological diversity." (5 CAR § 320-1102, 1103.) The ANHC also uses outreach and education programs to increase "ecological literacy" of Arkansans and participates in conservation partnerships.[27]

The Role of Conservation Districts

Conservation districts are special **subdivisions of state government that work with public and private landowners, government entities, and others to manage soil and water resources and coordinate local conservation efforts**. (Though they share a mission, districts in different states may go by different names depending on the state law under which they were established.[28]) Conservation districts in Arkansas were authorized by a first-in-the-country conservation district law: Act No. 197 of the Arkansas General Assembly of 1937. Each of the 75 conservation districts—a district for every county—is governed by a volunteer board of five directors.[29]

Every conservation district has different priorities depending on geography and state law. Among others, district responsibilities generally include:

- Ensuring soil health and productivity
- Protecting water and air quality
- Stewarding wetlands and waterways; and
- Educating the community on natural resources and conservation practices.

Conservation Districts: Arkansas Legislative Policy

"It is declared to be the policy of the General Assembly to provide for the control and prevention of soil erosion, for the prevention of floodwater and sediment damages, and for furthering the conservation, development, and utilization of soil and water resources and the disposal of water, and thereby to preserve natural resources, control floods, prevent impairment of dams and reservoirs, assist in maintaining the navigability of rivers and harbors, preserve wildlife, assist in the control of nonpoint source pollution, protect the tax base, protect public lands, and protect and promote the health, safety, and general welfare of the people of this state."

Ark. Code § 14-12-5105

Conservation Districts in Arkansas

In Arkansas, conservation districts are engaged in a variety of activities, including planning, management, and education. For example, districts administer grants, create nutrient management plans, lend equipment to farmers, implement beaver management programs, and host scholarships for students. According to the *Arkansas Advocate*, Arkansas' conservation districts receive around $2.5 million annually from the state's Department of Agriculture Budget.[30] **Under state law, Arkansas Conservation Districts have the power to:**

- Conduct prevention and control activities and improvement measures for flood prevention and the conservation, development, and utilization of soil and water resources and water disposal (e.g., engineering operations, cultivation, vegetation planting, and fish and wildlife developments), on public and private land with the consent and collaboration of landowners;
- Provide financial or other aid to government agencies or private landowners for erosion control, flood prevention, and soil and water resource conservation, development, and utilization activities;
- Acquire and maintain land that may be needed for works of improvement or conservation activities;
- Provide equipment and materials to assist landowners in soil erosion and flood prevention activities;
- Develop plans on soil erosion, flood prevention, and soil/water resource conservation and development;
- Develop land-use regulations within the district "governing the use of lands within the district in the interest of conserving soil and soil resources and preventing and controlling soil erosion" (Ark. Stat. § 14-125-501); and
- Create and adopt improvement plans for the "construction, operation, and maintenance of works of improvement for the prevention of erosion, floodwater and sediment damages, or for the conservation, development, and utilization of soil and water resources and the disposal of water within the proposed project area." (Ark. Stat. § 14-125-601.)

Conservation districts in Arkansas also have the power to coordinate with other local government bodies, including municipal or county legislative bodies, on relevant programs and policies. *Part 2 of this Playbook explains the districts' role in key federal agricultural conservation programs, which are implemented in partnership with districts and landowners*. Also, the county judge of any county may assist the local conservation district by using county equipment and employees to do conservation work as requested by the district. (Ark. Code § 14-125-307.)

***Consider*: Conservation Districts Can Provide Key Support for Community-Wide Efforts**

Across the country, many conservation districts undertake restoration and management efforts that help protect soil and water resources, improve watershed health, and deliver hazard mitigation co-benefits. For example, in Illinois, the **McHenry County Conservation District** bolstered the success of a 25-year effort to restore the Nippersink Creek floodplain's natural hydrology. The process-based initiative sought to restore the stream where it had been disconnected from the surrounding wetlands in the 1950s, leading to streambank erosion and flooding in the community.

Purpose of the Playbook: The Role of Local Governments in Wetland Protection

America's local governments know their lands and are familiar with their critical role as the primary regulators of land use and development activities. Many local governments also know their waters and wetlands, and most have some authority to regulate land uses in order to conserve and protect these important community assets. Local governments have substantial opportunities to promote wetland protection. Indeed, although certain regulatory tools are vested in the federal and state governments, there are many non-regulatory tools and legal mechanisms available to local governments. **These local tools are becoming even more important as communities take responsibility for their own local environments, and as citizens seek alternatives to regulatory mechanisms.**

This **Playbook is designed to assist local governmental officials, landowners, community advocates, and others in identifying and using this range of tools** to advance local interests and contribute to the protection of the larger watershed. Many of the tools and strategies will be relevant to small and medium-sized urban areas, while some elements of the Playbook, including much of Part 2, are intended primarily for rural communities and rural-edge municipalities. The strategies reviewed here are not one-size-fits-all, and part of the Playbook's purpose is to provide context and examples that help the reader decide which tools are appropriate for which situations.

Keep in mind that this Playbook cannot and does not describe every potential tool or pathway for local wetland protection. It is meant to provide an overview of the many good reasons to protect local wetlands and the range of tools available to do so, while highlighting where, when, and how certain tools can be used and tailored to achieve a community's goals. While we cannot comprehensively describe every tool, our goal is to provide you with enough information here to start a productive conversation or inspire your further research.

What is Covered in the Playbook

This Playbook is organized around **three important categories of locally-led activities to advance wetland protection**, which we refer to as pathways: (1) **local planning,** (2) providing or enabling **incentives for voluntary wetland protection** by landowners, and (3) **leading by example** on government-owned land.

In the first section, we describe how local planning efforts can be leveraged to harness the multiple benefits of wetlands for communities. This section is intended to highlight the **unique role of local plans in protecting wetland assets** and to showcase **representative options that are likely to align with one or more of a typical community's priorities**. Where possible, there are callout boxes highlighting real-world examples from within the state of Arkansas and beyond, which we hope will be useful to start conversations with planners and provide inspiration—or even templates—for local plans in Arkansas.

The second section highlights the value of letting landowners lead by creating, enabling, or identifying common-sense incentives for voluntary actions that protect wetlands. We begin with the foundational steps of demonstrating the economic and social value of wetlands to private landowners and helping everyone come to the conversation about specific incentive opportunities with an open mind. Next, we discuss strategies for local governments to create their own incentive programs to protect wetlands. This is followed by a **review of current state-led incentives** that can be used for wetland protection, which points out ways that local governments and advocates can help more of their neighbors get enrolled. We spend most of this section **identifying key federal incentive programs** and, along the way, offer some tips for scaling up enrollment, addressing common myths about federal partnerships, and easing community members' understandable concerns.

The third section highlights opportunities for local governments to leverage the power of leading by example. We start by discussing how local governments can "prove the concept" of harnessing the benefits of wetland protection by doing so on properties they control, including through use of pilot projects that can later be scaled up. The second half of this section focuses on a key tool in local governments' toolkit—real property acquisitions—with a focus on using wetland prioritization systems to maximize investment value and finding opportunities to leverage acquired properties for multiple benefits. This section also includes some information about raising or finding the funds to make projects a reality.

1 PLANNING TO HARNESS YOUR WETLANDS' BENEFITS

Planning tools are available to all local governments in Arkansas and provide an excellent opportunity to identify and conserve wetlands. Planning enables local governments to ensure that economic development, placement of infrastructure, and community values are all part of the decision-making processes that provide protection for these important natural resources.

Planning carries significant advantages as a wetland protection tool. First, it enables communities to **identify the resources** that are most important to the community and/or those that are most in danger of loss or degradation. (And when plans are adopted locally, they can address "non-jurisdictional" wetlands that fall outside federal or state permitting programs, helping to fill gaps in wetland protection while staying grounded in locally-articulated economic, ecological, and social values.) Second, planning does not require the use of particular implementation approaches; **it can support a mixture of incentives, voluntary actions, acquisitions, regulation, and other approaches designed with community values in mind**. Third, planning can be the basis for bringing diverse interests together to devise **mutually acceptable solutions**. Fourth, planning can serve as the **basis for drawing on outside resources** – such as federal or state funds or technical support – to accomplish locally-desired goals.

Communities should not feel like they have to choose between continued development and protecting their natural assets. The example plan types in this chapter are intended to support planners and advocates interested in how to harness wetlands' diverse values to achieve sustainable growth and other local goals, while meeting communities where they are. Some cities and towns may not have a comprehensive plan in place yet, while others may be ready to develop a wetland-specific management plan that complements an existing master plan. This chapter cannot cover every available planning tool (nor every combination of interrelated plans that a local government may choose to utilize), so these examples were chosen because they are likely to align with one or more of a typical Arkansan community's priorities – like getting a greater return on investment for public infrastructure spending, creating new parks and open spaces, increasing tourism revenue, and reducing risks to life and property from flooding.

The first few pages of this section provide a summary of the plan types highlighted here and examples of how each can be used to protect wetland assets. The summary pages are followed by a longer explanation of each plan type on our list – including one or more **examples of real plans that show how a community has used that plan type to protect wetlands and pursue other local goals.** We hope the collection of examples will be useful for starting conversations with your community's planners and provide inspiration for how a local plan can help your city, town, or county harness the economic, ecological, and social benefits of its wetlands while also contributing to the health and sustainability of your watershed.

Local Plan Type	How to Protect Wetlands (Key Strategies)	Planning Authority	Key Legal and Practical Effects	Example
Comprehensive Plan or **Master Plan**	*Designate wetlands* as mapped, inventoried local resources with ecological, economic, and social value. *Integrate wetland policies* into future land use, natural resource/open space, recreation, hazard mitigation, and/or stormwater infrastructure elements, making wetland protection an explicit policy objective.	Cities and counties adopt and amend (as authorized under state law). Developed by local planning commission (or its contractor) and adopted by local legislature (e.g., city council).	The plan's goals and policies guide local zoning and subdivision regulations, can incentivize further planning efforts, and help inform implementation of city ordinances, including individual permit/approval decisions.	**City of Woodland 2040 Comprehensive Plan** (Minnesota)
Natural Resource Plan or **Open Space Plan**	*Identify and prioritize wetlands* for protection, restoration, and acquisition, treating wetlands like assets rather than leftover or low-quality land. Establish greenways, buffers, and habitat corridors.	Can be a standalone advisory plan or adopted as part of a comprehensive plan.	Guides local gov. acquisitions, easements, and park/rec development. Supports zoning overlays, buffers, limits on grading and fill, and performance standards that protect wetland functions. A prioritization system provides an official, defensible basis for using limited local resources on valuable wetlands.	**DuPage County Open Space and Natural Areas Plan** (Illinois)
Wetland-Specific Management or Protection Plan	*Inventory and classify wetlands* with detail and precision. *Map* by regulatory status, function, and sensitivity. Establish local buffer standards, conservation and restoration priorities, and mitigation ratios.	Can be in the form of a local ordinance with direct regulatory effect, a standalone advisory plan, or part of the comp. plan.	Guides acquisitions and easements. Creates or supports specific, enforceable local policies and procedures that protect wetlands. Coordinates local wetland management with state and federal permitting.	**Rosemount Comprehensive Wetland Management Plan** (Minnesota)
Capital Improvement Plan	*Direct funding* for stormwater infrastructure and/or parks and recreation toward wetland preservation and restoration.	Local budgeting authority.	Investments in local stormwater management, public infrastructure, and parks are used to reinforce wetland protection, rather than allowed to undermine it.	**Waukesha County Five Year Capital Plan** (Wisconsin)

Local Plan Type	How to Protect Wetlands (Key Strategies)	Planning Authority	Key Legal and Practical Effects	Example
Green Infrastructure Plan or **Stormwater Management Plan**	*Map and protect wetlands* as key infrastructure, e.g. stormwater storage and filtration systems. *Require or promote green infrastructure* and low-impact development approaches that complement and leverages wetlands' natural functions, rather than degrade them.	May be tiered from a local comp. plan. May be mandated by state or local stormwater programs. May be adopted as municipal ordinance.	A comprehensive map of local green infrastructure assets provides guidance for easements/ acquisitions (public and private) and informs local utility management, permits, and best management practices (BMP) requirements. Integrates other planning efforts, highlights opportunities for partnerships, and encourages coordination across neighborhood, locality, and region.	**Kane County 2040 Green Infrastructure Plan** (Illinois)
Watershed Management Plan	*Map wetlands* by type and function. Frame wetlands as protective of public safety and investments; compare with gray infrastructure to show lifetime cost savings. *Make recommendations* for land use policies grounded in watershed-scale hydrology.	May be developed through a state or federal program that requires or incentivizes watershed-scale planning.	Support funding eligibility. Support projects' ranking, affordability, and place in integrated planning. Justify prioritization of wetland protection or restoration. Provide defensible rationale for land-use controls or easements.	**Jefferson Parish Watershed Management Plan** (Louisiana)
Hazard Mitigation Plan	Use wetlands for flood attenuation and shoreline protection. *Prioritize* wetland restoration in FEMA-funded mitigation.	Adopted locally and approved by state emergency management agency.	Unlocks hazard mitigation funding from FEMA.	**St. Croix County Multi-Hazard Mitigation Plan** (Wisconsin)
Sustainability Plan or Climate Plan	*Integrate* wetlands into sustainable development, climate, water, and biodiversity goals. Link wetland protection to healthy soil, drinking water, flood protection, heat reduction, and long-term cost savings.	Can be a standalone advisory plan or adopted as part of a local comprehensive plan.	May be linked to utility funding or capital projects; can increase competitiveness or enable eligibility for federal, state, and/or non-government funding programs.	**Monona Sustainability Plan** (Wisconsin)

Planning Future Land Use to Protect Local Assets

Comprehensive Plans

In the United States, land use decisions are largely up to local government units like counties, cities, and towns. The legal concept of "home rule" means that in general, local governments are allowed to make laws about their own government, property, and local affairs, unless there is a state (or federal) law that addresses (i.e. "preempts") the issue.

Every state has a zoning enabling law that delegates zoning power to local governments, and almost every state has a law that authorizes, encourages, or requires local governments to adopt comprehensive land use plans. **Arkansas does not require all local governments to prepare local land use plans, but counties, cities, and towns all are allowed to manage their own growth using local plans if they so choose.**

A comprehensive plan is like a **community's long-term blueprint for how its land should be used and developed over time**. It guides local decisions about zoning, public infrastructure, and growth to make sure future land use changes align with the community's goals and values. Comprehensive plans are **non-regulatory** documents themselves; then, local policies like zoning ordinances are used to carry out the planning vision in concrete, enforceable ways.

Land use planning tools like comprehensive plans and zoning are key opportunities for local governments to **steer development away from areas that provide value to the community when the land is left alone, like wetlands and buffer zones**. Local governments do not have to sacrifice their development goals in order to save their wetlands. Using strategic approaches to land use planning based on local priorities, communities can embrace and leverage their natural assets while also shepherding in growth.

Why are comprehensive plans so useful?

The planning process provides a framework for a **community to decide for itself how to grow while also protecting the natural assets that make the area livable** for the local people and wildlife.

Cities, towns, and counties can thoughtfully **balance their many different interests and needs**, like housing, business, agriculture, and conservation of natural areas for hunting, fishing, and "ecosystem services" like flood risk reduction and water quality.

Wetlands and lowlands work hard: holding floodwater, keeping soil on fields, and recharging wells and streams. By using a plan to **map these areas and steer development around instead of through them**, new homes, roads, and businesses are built on safer ground and working lands stay healthy.

Comprehensive plans guide local governments' spending and borrowing decisions. Simply **having a plan in place can help local leaders access grant funding** for things like drainage improvements, flood control, and economic development.

Local Planning in Arkansas

Comprehensive Plans

In Arkansas, state law establishes the process for a city, town, or county to develop and adopt a comprehensive plan. **Local governments are not forced to develop a comprehensive plan, but when they do, the official process set out in state law must be followed**.

There are two separate processes: one for cities and towns, and another for counties. The laws describing the procedures are found in Title 14 of the Arkansas Code. Municipal planning by cities and towns is covered in code sections 14-56-401 to 14-56-426. Municipal comprehensive plans guide land use inside city or town limits. County plans, where they exist, guide land use in unincorporated areas of the county. County planning is covered in code sections 14-17-201 to 14-17-405. City (or town) plans and county plans do not overlap, but they can and should be coordinated where possible.

Who is in charge of writing a comprehensive plan?

Cities and Towns

In a city or town, the local legislature (city council) is allowed to create a planning commission made up of at least five members. Small cities and towns are allowed to use the city council itself as the planning commission. Rules about the membership and operations of a planning commission are set out in state law. They include a requirement that the commission hold a **public hearing** on all plans, ordinances, and regulations adopted under Arkansas' municipal planning laws.

The planning commission has a duty to promote public interest in, and understanding of, long-term coordinated municipal planning. The commission **must create and maintain a planning area map** showing the locations of streets, public ways, and other features within the planning boundary.

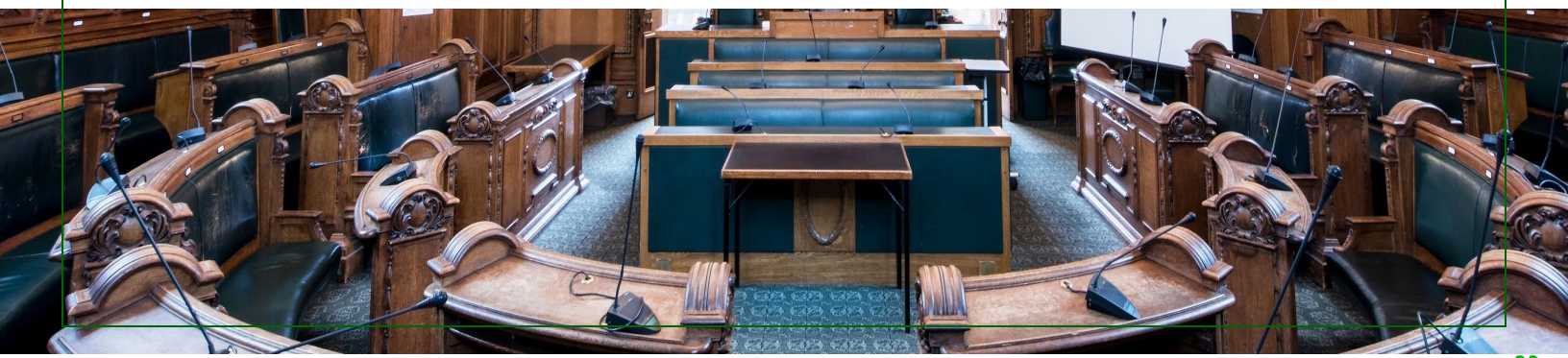
Counties

In a county, the county judge (with approval from the county quorum court) can create a planning board made up of 5-12 members.

The county planning board prepares (or hires someone to prepare) and recommends an "**official plan for development of the county.**"

The board is allowed to coordinate with federal, state, city/town, other counties', and regional officials about planning issues.

To make sure the board has the information it needs to make good planning decisions, all county officials and staff have to provide the board with information upon the board's request. The county judge can assign staff from county departments, bureaus, and agencies to prepare special surveys or studies for the board.



Comprehensive Plans

What topics does a local comprehensive plan cover?

Cities and Towns in Arkansas

When a city or town decides to adopt a local plan, the plan must promote the safety, morals, order, convenience, prosperity, and general welfare of the citizens, considering both present and future needs. State law specifically allows city/town plans to provide for efficient development, the "appropriate and best use of land," safety (from fire and "other dangers"), the "healthful and convenient distribution of the population," adequate public utilities/facilities, "good civic design and arrangement," the "wise and efficient" use of funds, and a few other factors. The environment and natural wetland assets are not mentioned specifically in the city planning law, but one of the many benefits of conserving or restoring wetlands is **reducing flood risks, which fits squarely within the "safety" element.** Also, development on wetlands is not usually the "appropriate and best use" of that land, so plan provisions that limit such development should align with the authorized planning purposes.

Counties in Arkansas

An official county development plan is for "guiding and accomplishing a coordinated, efficient, and economic development of the county" (or part of a county). State law says a county plan must aim to "best promote the health, safety, convenience, prosperity, and welfare" of the county's people, and the plan must include a statement of the county's development objectives and principles.

The list of things a county plan is allowed to cover includes **several topics that are clearly connected to wetland protection: conservation of natural resources, protection of areas of environmental concern, and development of "land subject to flooding.**" Based on the clear language in this law, a county planning board should not expect to run into legal problems over its authority to prepare county plans that discuss wetlands and their various benefits.

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How is a comprehensive plan organized?

A typical comprehensive plan includes most or all of the following sections:

- Vision statement, guiding principles, and community values
- Baseline analysis of existing conditions and trends by topic (population, economy, housing, natural features, infrastructure, transit, etc.)
- Existing and future land use: categories, locations, and policies
- Topic-specific goals and policies
- Implementation actions

A comprehensive plan often has **companion documents** (e.g., **maps, analysis, topic-specific spinoff plans**) that are useful for **housing technical details** and **incorporating new data** or conditions without undertaking a full plan amendment.

Comprehensive Plans Do	*Comprehensive Plans Do Not*
Set high-level policy direction	*Resolve parcel-level questions about land use*
Apply to a long period (e.g., 10-20 years)	*Get updated frequently*
Use language and concepts the public understands	*Include technical details and analysis in the main plan document*

Using a Comprehensive Plan to Help Protect Your Wetland Assets

Step 1: Inventory, map* and describe your wetlands as important local resources with economic, ecological, and social value.

- Use the Vision Statement and/or Guiding Principles **to center or elevate the value to the community** of its natural resources, natural infrastructure, or wetlands in particular.
- Require or commit to developing and maintaining a **wetland inventory** (or a natural resource/"sensitive areas" inventory that specifically includes wetlands and buffers).
- In the Existing Conditions section, **identify wetlands and buffers** in the constraints layer (among other physical factors that make future development infeasible or undesirable in certain locations).
- **Map wetlands as designated Conservation or Open Space areas** on the Future Land Use Map to limit or discourage high-intensity development of those areas. (This can include all wetlands or high priority wetlands.)

*For more information and tips on wetland mapping approaches and tools, see Part III.

Step 2: Steer development away from wetlands by adding policies to one or more plan elements that seek to avoid development of wetlands, limit cumulative impacts, and treat wetland disturbance as a last resort.

- Enable or encourage **development patterns that avoid wetlands** (e.g., cluster development, conservation development) in the In the Future Land Uses section.
- Identify wetlands as areas **targeted for conservation/acquisition** in the Natural Resource/Open Space section.
- Recommend **siting new capital improvements in areas that avoid wetlands** in the Transportation/Public Infrastructure section(s).
- **Integrate wetlands into stormwater, flood prevention, and/or resilience policies**. Use stormwater standards to promote use of green infrastructure (including natural and/or constructed wetlands) and protection of **natural hydrology**.
- Include policies committing or directing the community to adopt/maintain **wetland buffers.**

Step 3: Describe how the local government and its partners will implement the policies set out in the plan.

- Identify **specific ordinance updates** that will turn the policies into legally enforceable local law. These can include changes to **zoning, subdivision, and stormwater codes.**
- Clearly state that **rezoning and development approvals should be consistent with wetland policies,** making it a bit easier for the local planning board to "hook" their future decisions on such policies (although the plan language alone is not enforceable without an implementing ordinance).
- **Commit to specific amounts** (acres, dollars, number of projects) or locations of wetland acquisition and restoration projects.
- **Identify the funding** sources that will or would enable the government and partners to carry out the policies.

We'd like to Explicitly Acknowledge Our Wetlands' Value: *Check out* the West Memphis Comprehensive Plan

The **West Memphis GROW 2040 Comprehensive Plan** starts with a "West Memphis Today" section that reviews the current environmental context. One of the key types of environmental features called out in the review is Wetlands. After noting the scale of historical wetland loss in Arkansas, the plan states,

> "Most of the wetlands in West Memphis lie along the levee, although there are some scattered site wetlands as indicated by the National Wetlands Inventory map. All of these wetlands are subject to seasonal or event flooding, but do not contain permanent standing water. Wetlands are natural water filters serving to remove pollutants picked up on the land by stormwater before they are washed into rivers and lakes. Development adjacent to wetlands may be outside the jurisdiction of Federal agencies and can have significant impacts. For this reason, many local governments now provide some protection through wetland buffer requirements in their land development regulations" (p. 14).

Later in the plan, the Implementation Matrix explains how big-picture goals like "Preserve Open Space, Farmland, Natural Beauty and Critical Environmental Areas" (p. 136) will be pursued. One of the high-priority policy actions is to "Align the zoning code to the plan place types through comprehensive revision and update," with an expected outcome of "Protected ecological systems." Another policy action identified is to "Establish low impact environmental design elements in the development code," with the expected outcome of protecting "integrity of natural function."

We'd like to Center Our Natural Assets: *Check out* the Bella Vista, AR Comprehensive Plan

The **Bella Vista Comp Plan 2040** is an example of a local comprehensive plan that is organized around a community's natural assets. Developed over three years and adopted in 2020, the plan finds that the core "identity" of the city is its natural setting and vows that the "natural context of Bella Vista will continue to define the community as it evolves into a full-service city" (page 30). One of the six main goals of the plan is to "Enhance the integrity of the city by maintaining the natural character and incorporating it into future development and improvements," and the plan articulates the following policies to achieve it:

- Protect natural assets – Ensure important natural features are protected to maintain a healthy environment and ecosystem.
- Incorporate nature into site and building design – Reinforce the identity of Bella Vista through development, particularly in commercial areas.
- Utilize existing common open space – Collaborating with local entities to expand the trail network for use by residents & visitors.
- Allow for publicly-accessible natural areas – Utilize recreational amenities to promote Bella Vista as a destination (page 31).

In the words of the **City of Bella Vista**, "This plan will act as a guide – not a guarantee – for city officials for the next 20 years and outlines a broad strategic vision for the future." As we explain elsewhere in the Playbook, creating binding zoning laws and development standards requires the local government to pass an ordinance.

We'd like to Plan for Conservation Development: *Check out* the Pulaski County Comprehensive Plan

The **Pulaski County Land Use Study and Plan** was adopted in May 2025. The document lists ten "Guiding Principles," with the first two being "Protect Open Space and Environment" and "Take Advantage of Existing Community Assets" (App. C, page 2). It sets out 13 overall goals to "help direct action" based on the plan's findings; these include open space and recreation; environmental stewardship and resiliency; administering building permits to help shape development within the unincorporated county; and repair and revitalization of blighted areas, among others.

The Pulaski County plan takes a "geographic-specific planning" approach, dividing the large county into three subregions (Southeast, North, and West) and using the plan to identify "their unique conditions, populations, communities, and needs" (p. 13). For the West , where there are lots of streams and rivers and a few established rural communities, the subregion goals and objectives include amending codes "to encourage cluster development and other innovative development techniques to minimize areas of land alteration, protect watershed quality, and preserve the rural character of West Pulaski County," implementing new development standards "to better protect regional resources, such as steep slopes, erosion-prone soils, riparian corridors, wetlands, floodplains, and streamside areas," and "[utilizing] land acquisition and encourage conservation easements to protect significant ecological areas of the Ouachitas" (page 21).

For the West Region, the plan envisions future land use that involves "Conservation Neighborhoods": cluster developments that aim to preserve large tracts of land as communal open space. The plan explains, "Ideally 50 to 70 percent of the buildable land is set aside as open space by grouping structures on the developed portions of the land. This development pattern allows for reduced infrastructure and development footprints. It also offers environmental benefits to water quality, retention of wildlife habitat, and existing tree canopy. Conservation neighborhood areas may include a mix of residential, commercial, office, and institutional uses such as schools and places of worship" (page 22).

Consider: Meeting Your Community Where They Are

A local comprehensive plan should be based on the community's own priorities. It is rare (though not unheard of; see the previous page) for a city or town's core identity and values to revolve around wetlands or nature, and in many places, calling for wetland protection as part of an abstract environmental mandate will be an uphill climb. It is likely to be easier and more effective to **start by identifying the existing community priorities that have connections to wetlands—like flood safety, sustainable agriculture, hunting and fishing, or economic development—and then frame wetland protection as a tool that supports those local goals**. Keep in mind that comprehensive plans can explicitly incorporate wetland protections in their recommendations or can simply include wetlands as part of an overall strategy that includes conservation. **A plan does not have to be "wetlands-heavy" to make real progress** toward the community at large, the elected leadership, and other key decisionmakers seeing wetlands as valuable assets and taking actions to help protect them.

We'd like to **Fully Integrate Wetland Protections into Our Plan:**
Check out **City of Woodland, MN Comprehensive Plan**

The **City of Woodland 2040 Comprehensive Plan** treats wetlands as a foundational local resource, rather than as an incidental environmental consideration. By embedding wetlands directly in the plan's maps and overall planning framework, the plan makes wetlands a key factor in growth and redevelopment decisions, infrastructure planning, and implementation of the city's ordinances.

- The overarching goal of the plan is "[t]o continue to build a community that provides a high quality of residential life, by maintaining the natural beauty of the topography, securing orderly residential development with sensitivity to the forested areas, wetlands and Lake Minnetonka and providing comprehensive safety and security for its residents" (page 8). Under that goal, the first of three Land Use Policies explains that it is local government policy to "preserve and maintain open space, natural features such as lakes, ponds, wetlands, slopes, woodlands, natural drainage courses, and other environmental features which serve vital functions in the City" (page 8).
- Notably, there is a distinct Wetlands Policy, which states that the city "will continue to protect the quality of its wetlands and lakeshore by administration of the environmental ordinances already in effect. Preservation and protection of wetlands, identified on the City's official wetland map … from development or alteration that will adversely affect or inhibit their ecological role." The Wetlands Policy also notes that "the City will continue its close relationship with the Minnehaha Watershed District and Lake Minnetonka Conservation District to manage its wetlands and protect the quality of Lake Minnetonka" (page 8-9).
- The Land Use chapter explicitly affirms that "Wetlands provide open space, wildlife habitat and a natural filtering system and storage basin for storm water runoff. They also reduce soil erosion and flood potential" (page 14). Policies that emphasize preservation, impact avoidance, and consistency with state and watershed-level wetland protections are included in the land use and stormwater management chapters.
- The Implementation chapter explains that the city's wetland ordinance prohibits unnecessary disturbance of designated wetlands. It explains that as "a matter of practice, the City of Woodland rarely permits the alteration of wetland areas and reserves the right to permit such alterations on a case by case basis. Alteration of any wetland identified on the City's official wetland map which will inhibit its role in the hydrologic or ecological role in the hydrologic or ecological systems is prohibited. Subdivision regulation requires the protection of wetlands as part of public or private development" (page 15).

Remember: Comprehensive plans do not themselves regulate activities but instead establish the framework within which both regulatory and non-regulatory decisions will be made. They do not act as a regulatory trump card: if a local government approves a zoning ordinance, issues a specific permit, or takes some other governmental action that seems at odds with an existing comprehensive plan, the authorized activity cannot be stopped by another party merely on the grounds that it does not conform to it.

Planning to Leverage the Ecological, Economic, and Human Benefits of Open Space

Open Space or Natural Areas Plans

An open space or natural areas plan can be useful to help elevate wetlands from background environmental features to designated local assets with strategies for acquisition, conservation, and management. An open space plan typically begins by inventorying and mapping relevant areas; for wetlands, the inventory can be used to map not only wetland locations, but also wetland types (e.g., flood storage areas, water quality buffers, wildlife habitat, and recreational or educational sites). Once the wetlands are mapped, the plan can establish priority conservation areas and show how to connect wetlands into existing or planned greenways, floodplains, and habitat corridors. This creates a **documented policy basis for steering development away from sensitive wetland areas, targeting land acquisitions and conservation easements, leveraging state and federal funding, and aligning capital improvement projects** with natural infrastructure goals.

An open space or natural areas plan might be especially useful for translating wetland protection goals into local government actions that aren't tethered to federal jurisdictional (WOTUS) determinations. An open space plan can be used to recommend adoption of ordinances (like zoning overlays, buffer requirements, subdivision design standards), use of incentives for cluster development, and prioritizing acquisitions/easements in areas where wetlands' flood risk reduction and/or habitat value is high. While an open space plan can be prepared on its own, these plans often are adopted as part of (or referenced by) a local comprehensive plan, which helps endow them with political legitimacy and can give more heft to their calls for action.

Planning for **"greenways,"** which are often adjacent to rivers or streams, can have important economic benefits for communities. Greenways are **natural corridors that are set aside to connect larger areas of open space**, to provide for the conservation of natural resources, protection of habitat, and movement of plants and animals, and to offer opportunities for linear recreation, alternative transportation, and nature education. These linear protected areas also serve as buffers for waterways, helping to steer growth to more suitable areas. Greenways can also make substantial **economic contributions to communities** by enhancing the character and recreational opportunities in an area, greenways add to the quality of life for business and residents and can attract tourists and tourism-related business.

We'd like to **Connect More Wetlands to Our Open Space Network:**
Check out **DuPage County Open Space and Natural Areas Plan**

The **DuPage County Open Space and Natural Areas Plan** was created "to coordinate the efforts of all local and regional open space organizations in the acquisition or protection of property that will benefit and improve the quality of life for the residents of DuPage County." It explicitly includes wetlands as part of the county's definition of open space and natural areas, recognizing them alongside floodplains, forests, prairies, greenways, and other natural features that provide natural benefits. The plan aims to identify on a map, prioritize, and connect parcels of property within the county to preserve and expand the existing open space network. The hope is that "various agencies in DuPage County [use the plan] to protect the identified remaining open space, and foster cooperation and partnerships in implementing the plan over time." The plan was a public-private partnership, prepared in 2013 by the Conservation Foundation in collaboration with a multi-stakeholder steering committee made up of local governments, conservation groups, and private citizens.

Planning to Get the Best Bog for Your Buck

Wetland Management Plans

A wetland management plan is a focused, place-based document **designed specifically for the protection and restoration of wetlands and their long-term functional values.** Unlike most local comprehensive plans, open space plans, or watershed plans (where wetlands are one of many resources or elements featured in a larger scheme), wetland management plans tend to start with a **detailed wetland inventory that maps and assesses** the locations, types, functions, and regulatory status of wetlands in the jurisdiction. Some plans apply a **classification or prioritization system** that scores individual wetlands and establishes different management categories based on wetlands' current and/or potential ecosystem services value.

Using the inventory, the plan can **set forth explicit wetland protection priorities and directives** (e.g., avoid, minimize impacts, replace) that correspond to individual wetlands or categories from the inventory. Many wetland management plans will recommend (or connect to ordinances requiring) buffer areas, priorities and strategies for acquisition, restoration priorities, and management practices. The detail of the inventory and the specificity of management policies that are linked to functional value can help make wetlands' role as infrastructure—and the potential for good returns on investments in wetland infrastructure—clear to local decisionmakers.

Wetland management plans can also play an important role in guiding implementation of different federal, state, and local policies, priorities, and requirements related to wetlands. A specific wetland management plan can help provide a comprehensive view of the policy context and link local wetland goals to specific tools like zoning ordinances, capital improvement projects, funding streams, and interagency coordination mechanisms. By bridging ecological and hydrological science, land use, and financial planning, a wetland management plan can help turn broad wetland protection goals into specific protective actions.

We'd like to Optimize Our Investments in Wetlands Based on Their Relative Value:
Check out City of Rosemount, MN Comprehensive Wetland Management Plan

The City of Rosemount's **Comprehensive Wetland Management Plan (WMP)** serves as both a detailed wetland inventory and classification tool and a policy guide to help the city achieve its goal of "no net loss" of wetland quantity, quality, functionality, and biological diversity (page 2). The 2021 version of the plan was developed "in recognition of" the City's latest comprehensive plan and is intended to provide "greater flexibility and control over wetland management and protection to meet the specific needs and goals of the community" (p 4).

The WMP's comprehensive wetlands inventory—which has been updated since its original development in the late 1990s—includes not only a map of the city's wetlands, but a management classification based on "functional scores." The management classifications used in the plan are: Preserve (a grouping that "generally provided the highest functions for vegetative diversity and wildlife habitat"); Manage 1 ("generally provided high functions for vegetative diversity and wildlife habitat with some functions for water quality protection and flood attenuation"); Manage 2 "generally provided some functions for vegetative diversity and wildlife habitat with high functions for water quality protection and flood attenuation"); and Manage 3 ("generally provided the functions for water quality protection and flood attenuation") (p. 13).

In the Rosemount plan, these functional scores inform future land use and development decisions by linking category-specific "proactive" management strategies, buffer widths, and avoidance-minimization-sequencing to the relative value of the natural asset. For example, the prescribed width of the buffer zone is different based on the wetland's management category, decreasing incrementally from 75 feet (Preserve) to 50 feet (Manage 1), to 30 feet (Manage 2), to 15 feet (Manage 3) (page 15). This approach allows the city to allocate wetland protection resources toward high-value wetlands "in a manner that optimizes the overall functional value of wetlands to the community and the natural ecosystem" (p. 14).

Planning Public Investments to Leverage and Protect Wetlands' Value

Capital Improvement Plans

A Capital Improvement Plan (CIP) is a multi-year planning and budgeting document used by local governments to schedule and dedicate funding to public investments in infrastructure and facilities. Most CIPs cover a 5-to-10-year planning period, but annual budgets are used each year to dedicate available funding to specific items in the CIP according to the long-term plan. A CIP helps ensure that local budgeters are thinking beyond the next annual operating budget and considering the community's large, long-term public assets that require upfront capital investment as well as ongoing maintenance. A CIP typically includes projects like roads, bridges, airports, water and sewer systems, public buildings (e.g., schools, fire stations, court houses), and parks and lands.

CIPs can protect wetlands by **prioritizing public investments that leverage and enhance wetlands' functional value, instead of adding stressors that degrade it.** A CIP can be used to allocate funding for green infrastructure, floodplain reconnection projects, culvert replacements that restore natural hydrology, and wetland restoration or creation on public lands. Where it is possible to link capital spending priorities to another adopted plan that values wetlands—like a comprehensive plan, open space plan, or hazard mitigation plan—the CIP scoring criteria can be justifiably designed to explicitly reward investments that avoid wetland impacts or improve wetland connectivity. And even where scoring is based purely on cost and service demand, in many cases wetlands can fill the same function as gray infrastructure at a lower cost over the project's useful life.

We'd like to Build Wetland Restoration Costs Into Our Long-Term Budget: *Check out* Waukesha County, Wisconsin

Waukesha County, Wisconsin has developed a **Five Year Capital Plan** to enhance the county's infrastructure and services through "prioritization of long-range capital infrastructure needs linked to the county's strategic plan." According to the county **website**, "Each year, the County Executive submits a capital budget and an updated five-year capital plan to the County Board. After review and modification, the County Board adopts the plan by resolution." The mission of the annual planning effort is to "provide comprehensive planning and analysis of the long-range capital needs of Waukesha County. This process contributes to the fiscal review and prioritization of such capital projects as facility development (new construction and improvements), infrastructure maintenance, technology, major equipment, systems installations, and vehicle replacement" (**Budget Book** at p. 479).

The capital project categories span highways, public buildings and vehicles, airport, emergency preparedness, law enforcement, as well as a "Parks and Land Use" category. In the 2026 iteration of the plan, the latter category includes the Fox Bend Wetland Restoration Project, an effort to convert around 20 acres of "degraded, marginal quality agricultural land dominated by reed canary grass and woody invasive species" into "a mosaic of high-quality native habitat and transitional habitat" (id. at p. 512). According to the Capital Improvement Plan, the Fox Bend Wetland project "will provide a multitude of benefits including the following: 1) restore higher quality wetlands for waterfowl and other wildlife, 2) potentially increase floodplain storage through the wetland scrapes, and 3) increase beneficial native wildlife and vegetation at the site through the control of invasive vegetation and new plantings." The project is budgeted at $138,400, with funding from multiple sources: a Department of Natural Resources Waterfowl Stamp Program grant ($92,400), the Southeast Wisconsin Fox River Commission ($10,000), and the Department of Agriculture, Trade, and Consumer Protection's Soil and Water Resource Management program ($36,000) (id. at pp. 512-513).

Planning to Leverage Natural Infrastructure for Improved Stormwater Management

Green infrastructure (GI) plans or broader stormwater management plans can be used to map and protect wetlands as key infrastructure (e.g., stormwater storage and filtration systems). These plans may be independently developed, but they also may be mandated by a state or local stormwater program, adopted as a municipal ordinance, or tiered from a local comprehensive plan. Ideally, these plans will **require or promote GI and "low impact development" approaches that complement and leverage wetlands' natural functions, rather than degrade them**. By providing a comprehensive map of local GI assets, the plan can provide guidance for future land acquisitions and conservation easements (both public and private) and help inform local utility management, permit decisions, and best management practice (known as "BMP") requirements. A strong GI plan will integrate other regional and local planning efforts, highlight opportunities for partnerships, and encourage coordination among and across neighborhoods, governments, and the greater watershed or geographic region.

We'd like to Encourage Cities to Use Green Infrastructure: *Check out* Kane County, IL 2040 Green Infrastructure Plan

In 2012, the Kane County Planning Division set out to develop a county-level natural resource inventory, create a map of its green infrastructure (GI), and collaborate with the county's natural resource experts to develop "goals, objectives, and actions" to advance a countywide GI network with multiple benefits for the local land, water, air, and people (plan at p. 5). The planning effort was funded by the Chicago Wilderness conservation alliance (using a grant from Boeing), which selected Kane County as one of three priority planning areas based on the county's interest in GI (p. 32). The resulting **Kane County 2040 Green Infrastructure Plan** defines GI expansively as "conserved natural areas and features; public and private conservation lands; working lands of conservation value; and other protected open spaces" (p. 7). It describes a network of "hubs, links and sites": valuable "hub" areas can be large or small, and are interconnected by greenways or habitat corridors. Sites are described as "smaller areas of green space that contribute important ecological and social values, but may not be attached to the network formed by the hubs and links" (Id). According to the plan, the connectivity of the network is what "helps direct and coordinate acquisition, restoration, and management efforts" (id.)

Using its Sustainable Watershed Action Team (SWAT) model, Chicago Wilderness team members partnered with Kane County planning staff to create the Green Infrastructure Map. This involved "existing resource inventories and input from area resource experts, local jurisdictions and other stakeholders." In particular, the new map "compliments and expands upon relevant resource mapping in the Open Space and Green Infrastructure Chapter of the 2040 Plan" (page 32). Among the many core layers included on the Map, several are wetland-specific: Advanced Identification of Wetlands (ADID) data, NRCS Farmed Wetlands, Hydric Soils, Fen Recharge Areas, and a 200-foot butter around creeks and wetlands (p. 33). The ADID layer was included to provide data on "the location and quality of Kane County's wetlands to advance the protection and restoration of high quality and functional wetlands and habitats. It can aid residents and organizations desiring to protect high quality resources or restore sites that have been degraded. It can inform landowners and developers about an appropriate course of action when they are considering disturbances in or adjacent to high quality sites....[which] are considered unmitigatable" (page 68).

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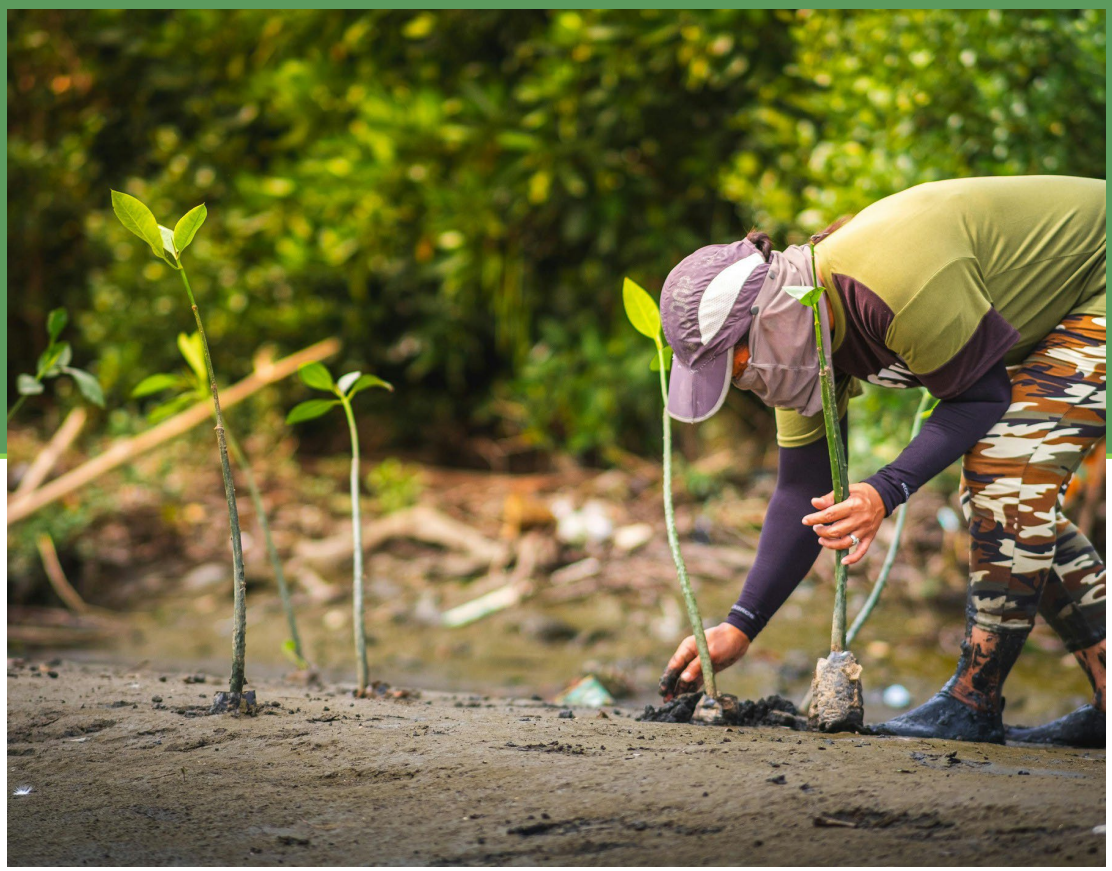
The **Kane County 2040 Green Infrastructure Plan** identifies four goals: making Kane County a regional leader and model in the area of GI; protecting water supply and improving water quality; preserving the county's natural resources; and integrating alternative (non-motorized) transportation options into the GI network. Each goal is accompanied by one or more specific "objectives" and several concrete "actions" that municipal governments and others can take to advance the goal. The plan is explicitly intended to be used by the county's municipal governments in updating their comprehensive plans and local ordinances. Specific recommendations for landscape retrofit measures include restoring "drained" wetlands to help improve storage and quality of stormwater (page 43).

Notably, the plan's appendices include nearby case studies demonstrating the economic value of green infrastructure (e.g., why conservation development "imposes a lower public cost" than conventional development; why investing up front in porous asphalt results in net savings over time), as well as an ordinance checklist for municipalities. The goal of the checklist is "to encourage ordinance provisions that promote sustainable development and redevelopment that protects water resources, natural resources, and quality of life" (page 74). The checklist can be used to guide development or refinement of local ordinances on five topics: comprehensive stormwater standards; natural area standards; landscaping standards; impervious area reduction; and conservation development (zoning/subdivision standards).



Planning to Unlock Key Funding Programs and Efficiencies of Scale

Local planning involves assessing problems, engaging with individuals and communities, identifying strategies to address problems, and developing plans for improving the management of activities. The **watershed approach** organizes all of these steps by watershed: an area of land where all the water drains to the same stream, river, or lake.

Working at the watershed scale can facilitate approaches based on hydrological science, leveraging of funds and activities, efficiencies of scale, and effective measurement of progress for a range of goals that may include flood risk reduction, improving water quality, restoring habitat, and strengthening partnerships. A "watershed management plan" (WMP) can help protect local wetlands by identifying wetlands by location and function, integrating wetlands into land-use decisions, and unlocking funds to implement wetland restoration projects.

All watershed management plans provide a roadmap for managing water, land uses, flood risk, pollution control, and/or habitat at the watershed scale, but the emphasis and framing of a given plan will depend on local priorities and goals. Some watershed plans are geared mainly toward water quality improvement, while others are more focused on stormwater management and flood risk reduction. Often, the points of emphasis in a watershed plan align with priorities and criteria of the funding program being used to develop the plan—or the funding that the community hopes to use the plan to unlock. For example, a Clean Water Act Section 319 watershed plan to address nonpoint source pollution in an impaired waterbody must include nine specific elements in order to qualify for federal funding for restoration projects. Watershed plans developed for the purpose of earning points under the National Flood Insurance Program (NFIP) Community Rating System (CRS)—which help lower residents' flood insurance premiums—must meet criteria described in the CRS Coordinators Manual.

We'd like to Explore Our Wetlands' Functions and Earn CRS Credits: *Check out* the Jefferson Parish Stormwater Watershed Management Plan

The Jefferson Parish, Louisiana **Stormwater Watershed Management Plan** was developed in 2022 to assess how flooding will be impacted by projected changes in sea level and precipitation "as well as to recommend strategies for mitigating increased flood loss damages caused by the projected environmental changes and by redevelopment and new development in the Jefferson Parish area watersheds" (page 4). The plan was intentionally organized to align with the requirements for the CRS Activity 450: Storm Water Management, and FEMA was consulted in scoping the analyses. (Id.)

The existing analysis section of the plan identifies over 11,000 acres of freshwater wetlands (forested/shrub and emergent). While the plan does not include a detailed wetland assessment, one of its recommendations for future action is to "[i]dentify existing wetlands or other natural open space areas to be preserved from development so that natural attenuation, retention, or detention of runoff is provided. The runoff and flood damage as well as other floodplain management benefits of these areas should be documented and the areas should be mapped, and regulations implemented to preserve the identified areas" (p. 39). On the Capital Improvement side, the plan recommends "maximizing the use" of green infrastructure including bio retention facilities and preservation of natural landscape features before constructing "hard" facilities (p. 36). One of the recommended Regulatory Revisions is to "Identify land areas where ordinances should be imposed to prohibit fill without mitigation for development involving" structural foundation work (page 37).

Planning to Minimize Risk and Reduce Future Losses from Natural Disasters

The concept of "hazard mitigation" attempts to break the cycle that occurs routinely in many parts of the U.S.: a natural disaster like a flood causes damage, the community undertakes an expensive rebuilding effort, and the next disaster brings a new round of damage. Hazard mitigation **means investing resources *before* the next disaster strikes to reduce the risks and extent of damage and the cost of future losses,** and the Federal Emergency Management Agency (FEMA) administers special grant programs for state and local governments who develop and adopt Hazard Mitigation Plans. Research has shown that this investment in hazard mitigation is cost effective: according to one **2020 study by the National Institute of Building Sciences,** the impacts of federal mitigation grants resulted "in a national benefit of $13 for every $1 invested." Nature-based mitigation strategies can also be more cost-effective than traditional "hard" solutions in many contexts, achieving the same hazard mitigation benefits while requiring lower upfront (capital) and ongoing (operation and maintenance and repair) costs.

For flood prone jurisdictions, federal hazard mitigation grants like the longstanding Flood Mitigation Assistance and Hazard Mitigation Grants Program, as well as the newer Building Resilient Infrastructure and Communities (BRIC) and Safeguarding Tomorrow Revolving Loan Fund (2021), are an important potential funding opportunity to pay for the restoration and protection of critical natural infrastructure like wetlands while improving outcomes and reducing costs from the next flood disaster. A hazard mitigation plan is used to identify potential risks that a state or local community faces from hazards; assess the capabilities of the government entity to address the risks; and identify goals and actions to reduce risk from hazards across the plan area. Hazard mitigation planning can take place at the state level and/or the local level. Plans are developed by a variety of people and groups, generally led by a state or local emergency management agency (or a consultant hired by that agency) and often involving committees that include members from federal, state, and local agencies. The plans must be updated every five years.

The current **State of Arkansas Hazard Mitigation Plan** was approved by FEMA in 2023 and is available on the Department of Public Safety's **website**. High-priority mitigation strategies identified in the state plan include, among other things, the installation of stormwater detention/retention infrastructure to reduce flooding; adoption of sustainable development policies; education on "the importance of adopting ordinance that limit development in flood zones"; and acquisition of "properties vulnerable to flooding." Medium priority strategies include use of green infrastructure (pp. 214-216).

For a local government to be eligible for FEMA's hazard mitigation funding, a local hazard mitigation plan must be coordinated with and reviewed by the state hazard mitigation officer and meet other minimum plan requirements (44 C.F.R. § 201.6). Compared to a state-level plan, **local hazard mitigation plans (HMPs) are more directly tied to local needs and goals and thus provide an important opportunity for communities to identify and communicate their own conservation and restoration priorities and actions.**

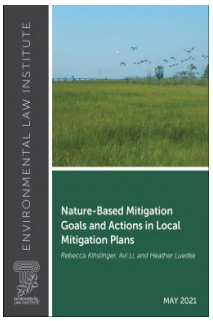
Consider: Benefits of Integrating Nature-Based Solutions into Hazard Mitigation Planning

An HMP process is a forum for building community consensus on mitigation priorities and actions and aligning water, natural resource, and local hazard planning priorities. It provides an opportunity to secure community support for wetland protection and other natural infrastructure, and it can help communities implement nature-based solutions benefiting multiple priorities through coordinated planning and project development.

Where to Find Examples of Wetlands in HMPs

Many local HMPs identify nature-based hazard mitigation goals and include hazard mitigation actions, such as the conservation and restoration of wetlands and floodplains and green infrastructure, that prioritize the risk reduction benefits of natural infrastructure. A **2021 report** by ELI on integration of nature-based strategies in mitigation planning provides a snapshot of the range of practice across over 100 local hazard mitigation plans from across the country and identifies some example language that could be used by local governments in future plan updates.

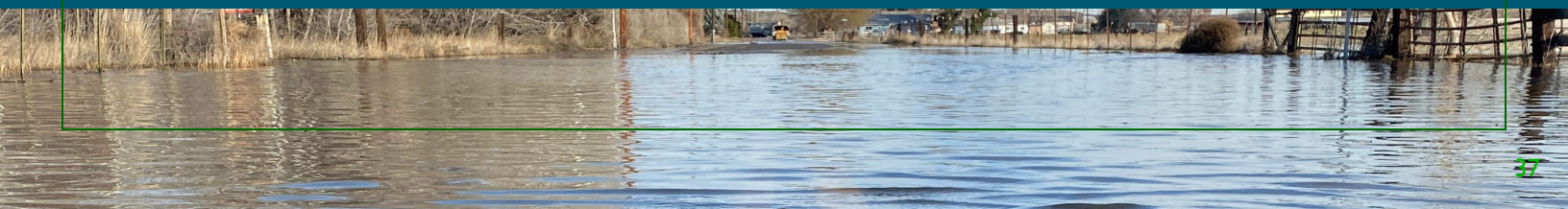
As we note in that report, some local plans broadly discuss preserving existing wetlands, floodplains, and/or streams to prevent degradation and an increased risk from hazards. For example, Buchanan County, Iowa identifies the following Mitigation Goal: "Protection of wetland and other natural areas existing along waterways." Many local plans include one or more "action(s)" focused on restoration. Some of these actions are broad, e.g.: "support marsh restoration efforts," (Harrison County, MS) and "restore wetlands or create new wetlands" (Hennepin County, MN). Others specify locations for restoration: e.g., "Enhance existing wetland south of Fletcher Avenue," and at various other locations (Hillsborough County, FL). Several explain the reason for wetland restoration, e.g..: ". . . protect their natural functions and prevent any negative impacts from development" (St. Croix County, WI), "Dredge Jackson Marsh to restore wetlands and help reduce flooding" (Hancock County, MS).



Kihslinger, R. et al. (2021). Nature-Based Mitigation Goals and Actions in Local Hazard Mitigation Plans © 2021 Environmental Law Institute

To improve integration of nature-based actions like wetland protection into plans, local hazard mitigation planners can take the following steps:

- Identify and include wetland protection and restoration experts on the planning team. These could include state or local agency staff, NGOs, watershed groups, academics, etc. As a first step, local planners can draw from programs identified in the capabilities section of an existing state or local HMP to identify potential partners.
- Consider including Mitigation Goals that focus on how to protect the environment from natural hazards while also reflecting the local government's preference for and commitment to using cost-effective natural assets where possible to mitigate risk.
- Consider incorporating both broad and specific Mitigation Actions into the plan. Broad actions communicate a general commitment to pursuing nature-based projects and may help facilitate funding eligibility/ competitiveness when opportunities arise. Specific actions can help put some weight behind a particular project (e.g., a project idea that already has been developed to address a specific risk, vulnerability, and/or location).
- Invest in monitoring and assessment of nature-based hazard mitigation projects. Performance data will help planners communicate the success and value of nature-based projects to the public. Monitoring data can help convince local stakeholders that nature-based strategies work in their specific case and offer numerical evidence that nature-based projects have positive environmental and mitigation effects. Monitoring data can also help planners learn based on real-world outcomes and design more effective nature-based strategies in the future.



Planning for Sustainable Development

A local sustainability plan can be used to integrate wetlands into broader sustainable development, water, biodiversity, and/or climate resilience goals. Depending on the context, wetland protection may be linked to one or more local sustainability priorities like healthy soil, clean drinking water, flood protection, extreme heat reduction, and long-term cost savings. **Making a connection between wetlands and long-term economic development and cost-savings can help generate support** for strategies like wetland buffer ordinances, conservation easements, and incorporation of green infrastructure that may otherwise not be of interest to a community. Where plans establish measurable sustainability targets (e.g., quantity of stormwater runoff reduced or acres of open space protected), wetland preservation and/or restoration can be among the strategies recommended to achieve them. The adoption of a sustainability plan can also improve a community's eligibility or competitiveness for certain federal or philanthropic funding initiatives.

We'd like Practical Ideas for Operating Sustainably: *Check out* the City of Monona, WI Sustainability Plan

In Monona, Wisconsin, a local push to embrace sustainability principles began in 2012 with the enactment of a Sustainability Resolution. Building on the principles in the resolution, the **City of Monona Sustainability Plan** was adopted a few years later by the city's Sustainability Committee "in collaboration with other city committees, city employees and community residents and businesses" (Exec. Summary). The plan is intended not only to articulate a high-level vision for making sustainability principles "the norm in city planning, policies, and procedures," but also to provide specific, "targeted strategies (plans of action)…to help the city practically implement ideas for operating more efficiently and sustainably, per the **Web Summary**.

The Land Use section of the plan acknowledges, "Monona is a land-locked community that has been extensively developed throughout the years, leading to a strong neighborhood fabric and few available greenfield sites" (p. 9). To help ensure the continued existence of the existing green spaces, one of the Municipal Objectives in the plan is to "Maintain protection and restoration of natural habitats including wetlands" (id). The plan identifies "potential strategies to help achieve" the objective, which include updating the city's Wetland Management Plan, taking an inventory of natural habitats, and implementing "an invasive species management plan for public lands that includes controlling aquatic invasive species" (p. 26). The plan sets a goal of increasing the square miles of land "reserved for natural habitat" by 8% by 2025 and restoring 20 sq. mi. of land to natural habitat on the same timeline (id.)

Consider: Terminology and Framing

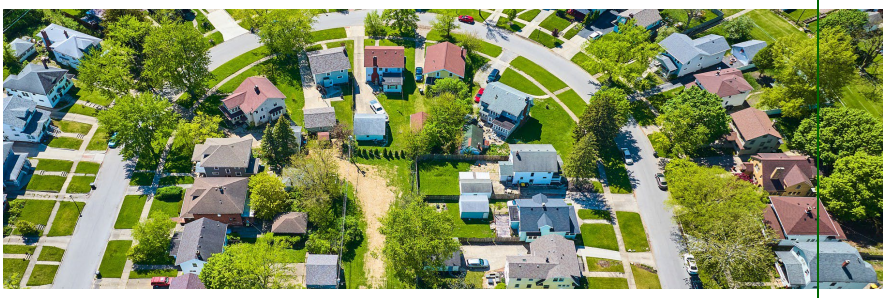
In much of the U.S., the word "climate" comes loaded with ideological baggage, but local plans and agricultural programs routinely invoke "sustainability" without the same controversy. Rural and rural-edge local officials are used to justifying their decisions in terms of long-term fiscal responsibility, infrastructure resilience, and land stewardship, concepts easily aligned with "sustainable" living. By calling a plan a sustainability plan instead of a climate action or climate resilience plan, local governments might help stave off assumptions that the plan is ideologically biased and/or driven by outside interests. Plans and policies framed around sustaining working lands and water supplies, reducing flooding, lowering infrastructure maintenance costs, and keeping communities viable for the next generation are more likely to resonate throughout a community without raising a debate about climate science or politics.

Translating Plans into Action: The Role of Local Ordinances

Local governments have the authority to protect wetlands using different forms of local regulation, as authorized by state laws. This can take a variety of forms, from zoning tools, to subdivision regulations, to direct floodplain and wetland controls. This section explores a flexible range of options for local regulation, with the understanding that all of these recommendations will not be viable for all communities. In some places, the idea of putting additional restrictions on land use may be a hard sell to the local government and community members. Yet when coupled with planning tools and voluntary incentives, local government regulations can be a particularly valuable tool for protecting wetland assets, and it is worth considering how a thoughtfully designed ordinance can respect existing uses, farms, and the need to develop while still preventing the most harmful impacts of filling local wetlands. It is possible to balance preservation of private property values with protecting shared community assets like hunting and fishing areas, passable roads after storms, and clean water. Even communities that would not typically welcome new environmental mandates may be interested in how a carefully crafted wetland ordinance can serve as a cost-effective tool for flood resilience and long-term economic stability.

Using new or amended local laws to protect wetland assets is not about adding red tape and unnecessary government oversight. It is about stepping into a space where the federal government has backed away and **taking *locally driven* action to protect homes, farms, businesses, roads, and tax dollars from costly flood and erosion damage**. It is about helping to keep these free, natural systems—which already manage stormwater, improve water quality, and attract hunters and anglers—working for the community, even though longtime protections for wetlands under the Clean Water Act are shrinking. By adopting practical, locally tailored safeguards against unfettered wetland fill, communities can reduce future disaster losses, avoid some expensive infrastructure fixes, and preserve the land and water resources that support Arkansas's economy and way of life. This section of the Playbook describes how ordinances on the following topics can be used to help protect wetlands: zoning, subdivision standards, exactions and proffers, floodplain ordinances, and individual site approvals.

Regulation works best when it is combined with other tools, such as comprehensive planning or watershed planning and incentive mechanisms that encourage compliance.



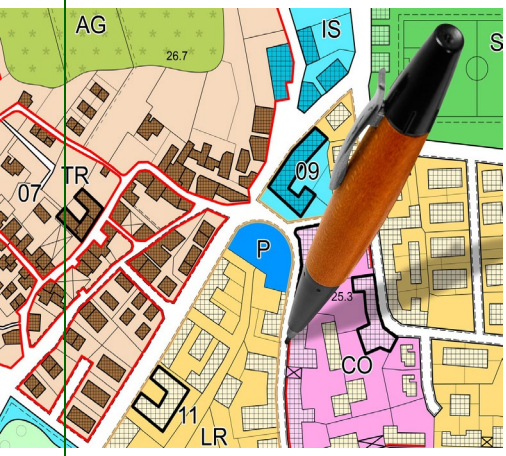
Local Government Authority in Arkansas

Arkansas state law provides city and town (municipal) governments with broad authority to pass ordinances related to the safety, health, prosperity of their inhabitants (Ark. Code. § 14-55-102), as long as local ordinances do not conflict with state law on certain topics (e.g., gambling, collective bargaining, state highway maintenance). (Id. at § 14-43-601.) Zoning ordinances are specifically authorized and may regulate land use and matters "necessary to the health, safety, and general welfare of the municipality." (Id. at §14-56-416). The Arkansas Municipal League recently published **The Civilpedia Handbook: A Guide to Municipal Government in Arkansas,** which includes useful information for local officials, including a chapter on planning and zoning. In areas of Arkansas counties that do not fall inside any city or town's limits, planning is governed by Subchapter 2, Chapter 17, Title 14 of the Arkansas Code, which sets out how counties plan for land use, infrastructure, and development in unincorporated areas. Counties may choose whether or not to adopt planning and zoning; they are not required to do so.

Zoning to Support Wetlands and Development

Zoning is a local land use planning tool that divides a city or county into "zones" and makes **rules about what kinds of buildings and activities are allowed in each zone type**. Zoning is one of the key strategies that cities use to implement their local comprehensive plans. Through zoning, high-level goals and strategies from the local comprehensive plan are translated into clear rules about what can be built on which properties and why.

In some parts, zoning has a bad reputation for representing government overreach and/or restricting growth. However, zoning is about much more than the city telling homeowners what color they can paint their houses or deciding how tall a new commercial building can rise. **Zoning is a way for local governments to help their cities grow *smarter*, not *less*.** Functional zoning allows cities to **organize land use based on how a given land area can best serve the community, aligning land use rules with real-word conditions and local needs.** For example, lands that provide valuable ecosystem service benefits and are risky to build on—like wetlands, riverbanks, and steep slopes—can be zoned for conservation or recreation rather than residential or commercial development. By steering new development away from flood-prone areas and allowing floodplains and wetlands to function naturally, zoning can reduce repetitive flood damage and the public cost of repairing it. This not only protects individual property owners and occupants from specific flood events, but it also means that in the long term, more local dollars can go toward roads, utilities, and downtown improvements instead of disaster recovery.



At the same time, zoning can help revitalize a city's commercial district by concentrating shops and services in walkable and/or central areas, making it easier for small businesses to thrive on the shared foot traffic and visibility that come with a location on a main road. Thoughtful residential zoning can locate new housing developments in areas where families can safely stay and thrive, which strengthens the case for investing public money in public schools and community amenities. At an individual property level, zoning helps homeowners protect their property values and investments by setting predictable rules for the surrounding land and helping reduce risks from natural hazards like floods.

Zoning in Arkansas

In Arkansas, zoning is a powerful way for local governments to protect and leverage their natural infrastructure assets like wetlands and floodplains while also promoting growth or revitalization of the local economy. Under state law, a municipality in Arkansas may divide its territory into zoning districts, for which zoning ordinances may regulate land use, lot size, setbacks, building heights, and other development standards (Ark. Code. § 14-56-416). Arkansas does not *require* every municipality to adopt zoning rules, which means that **whether or not a city or town has zoning depends on whether the city council (or other governing body) has passed a zoning ordinance** and maintains planning and zoning functions. The next few pages focus on some zoning tools that local governments can use to help protect their communities' natural assets while keeping future land use consistent with real-world conditions and local goals. These are not the only zoning strategies that can protect open spaces like wetlands, but they are a good starting point for communities thinking about how to use zoning and related concepts to implement their planning objectives.

Overlay Zones

Overlay zones (or overlay districts) are a straightforward zoning tool that is useful where there is a resource issue that cuts across a number of different development areas. Wetland overlays, floodplain overlays, and hazard overlays are all common overlay types that can be used to protect wetland functions and their value. **The overlay works by adding a layer of resource-specific protections on top of underlying zoning districts.** This makes overlays particularly helpful in areas where wetlands or floodplains are found within several different "base zones" (e.g., residential, agricultural, industrial). A wetlands overlay usually covers the wetland itself and a "buffer" around it, with the width of the buffer often tied to a wetland's type or function (e.g., larger buffers for high-value or flood-storage wetlands).

Typically, within the overlay area, **certain activities that would otherwise be allowed in the base zone are limited, prohibited, or trigger additional review,** e.g., filling, grading, removing or altering vegetation, and/or otherwise altering the existing hydrology. For example, a wetland overlay might require development applicants to demonstrate how their project avoids and minimizes impacts to wetlands and/or uses setbacks to protect wetland and buffer areas. A floodplain overlay might impose limitations on new structures in the floodway, require building elevation/floodproofing to a specified flood level, and restrict filling that would displace flood storage.

Often, overlay zones shape development through performance standards, rather than imposing blanket prohibitions on development. Sometimes referred to as performance-based zoning, this approach allows the developer to be creative and flexible (and likely more economical) in determining how the development will meet an overarching public need identified in the zoning ordinance. For example, a performance-based zoning layer might place an overall cap on impervious surface area or require no net increase in runoff volume.

Performance-based zoning standards can help translate the objectives from a local comprehensive plan into concrete, enforceable land use requirements.

There are also other ways to use overlay zones to balance wetland protection with property rights and development goals. For instance, overlays can be used to designate areas where transferable development rights (TDRs) may be created and where other tradeoffs can be applied (e.g., reduced setbacks elsewhere on the site in exchange for using conservation easements to protect wetland areas).

Examples of Overlays that Can Support Wetland Protection

Resource-Based Overlay Types

- Wetland
- Lowland
- Floodplain
- Natural Hazard
- Riparian/Stream Corridor
- Conservation
- Sensitive Areas
- Shoreland/Vegetation Strip
- Biodiversity
- Water Recharge Zone

Performance-Based Overlay Types

- Stormwater/Low-Impact Development
- Hydrology/No Net Loss
- Cluster Development/Open Space
- TDR
- Incentive
- Habitat Connectivity

We're Interested In Overlay Zones that Establish Wetland Setbacks: *Check out* the Homer Glen, IL Code

The **Subdivision and Site Development Code** of the Village of Homer Glen, IL establishes a Lowland Conservancy Overlay District as an overlay to the zoning districts created in the village's zoning ordinance. Every application for a site development permit is reviewed by the village to determine if proposed activity will occur within the Lowland Conservancy Overlay District boundary, defined to include areas within "regulated wetlands and streams, and all lots lying wholly or in part" within the FEMA-designated special flood hazard area or within 100 feet of the edge of a regulated wetland or a stream. The ordinance establishes a minimum setback from wetlands (as well as streams, lakes, and ponds): in general, no improvements or development activity may occur within the minimum setback of 75 feet from the edge of regulated wetlands.

Certain low-impact activities (e.g., walkways, foot bridges, signs) may be permitted within the setback area only if they cannot be located outside of it as a practical matter. Approval for these requires a professional report showing that the activity "will not adversely affect water quality; destroy, damage or disrupt significant habitat area; adversely affect drainage and/or stormwater retention capabilities; adversely affect flood conveyance and storage; lead to unstable earth conditions, create erosion hazards, or be materially detrimental to any other property in the area of the subject property or to the Village of Homer Glen as whole, including the loss of open space or scenic vistas." (Village Code Section 138-6.)

We're Interested In Linking Our Wetland Zoning Rules to Broader Goals: *Check out* City of Rosemount, MN Wetland Management Plan

In the City of Rosemount, MN, development in wetlands is regulated through the Wetland Overlay District (WOD) zoning regulation in the City Code (Section 11-7-3 of Title 11 Zoning Regulations). According to the City, the WOD "is intended to impose restrictions in addition to those required by the underlying zoning for the protection of wetlands." To guide and supplement the WOD regulations, the City developed the Rosemount **Comprehensive Wetland Management Plan** (WMP). The WMP consists of an inventory/assessment of the wetlands in city combined with a "plan designed to maximize the benefit that surface waters can provide to the community." While wetlands/projects that are associated with individual lot activities or require a zoning permit remain subject to the WOD, the WMP includes policies that apply to "to wetlands and projects that will be reviewed through a site development process and are subject to the City's Comprehensive Plan." According to the WMP, wetlands have been prioritized for local management based on an "assessed functional score." Notably, the WMP has not been treated as a static, one-time document and has been reviewed, revised, and refined over several years to reflect lessons learned and changes in Minnesota's State Wetland Conservation Act regulations (which require local wetland protection planning).

Cluster Zoning

Cluster zoning can be an attractive planning tool for protecting wetlands in developing areas because it reshapes *how* land is divided and developed, not necessarily *how many l*ots can be developed. **This is because cluster zoning doesn't reduce total development. Instead, it redirects development to areas that are less strategically important for maintaining natural assets.** Cluster zoning can help protect new development areas from flood risks, preserve the important functions of wetlands, and conserve habitat for wildlife and game species while still allowing property owners to realize the development value of their land.

The idea of cluster zoning is that a developer is allowed to build the same number of housing units as would normally be allowed in the "residential" (or mixed use) base zone, but instead of spreading the lots evenly across the whole parcel, they are clustered together on a smaller portion of the site. For example: if a 50-acre parcel would, under typical residential zoning, support 90 houses on half-acre lots (not counting roads and other infrastructure) then use of the cluster zoning approach might concentrate all 90 units on half the parcel, while dedicating the rest for open space, including wetlands. (Even higher development densities are sometimes allowed for clusters to encourage open space preservation.)

This provides two important opportunities: (1) the **clustered development lots can be located on higher, drier, and/or less sensitive land;** and (2) the open space area can be placed under permanent protection (using a deed restriction or conservation easement) so that it remains available to provide the community with the **flood management, water quality, recreational, and other benefits of open space.**

The cluster approach is particularly useful in areas where the remaining open land can be part of a larger network of private and public lands providing ecological and recreational values. Not only is this helpful from a practical perspective by preserving the biological and hydrologic functions of wetlands and their surrounding uplands, but also it increases the value of the *developed* area, making the economics of the new development work. Experience has shown that the buyers of these units are likely to be advocates for the continued protection, maintenance, and ecological functioning of the open space over the longer term, since it affects both their quality of life and their investment.

We're Interested In Cluster Development: *Check out* Fayetteville, AR Development Code

The City of Fayetteville, Arkansas amended its development code in 2016 to promote "innovation" in housing development patterns while maintaining compatibility with surrounding neighborhoods. The Fayetteville City Council passed an ordinance (No. 5921) updating the city's Unified Development Code (both Zoning Regulations (Ch. 161) and Use Units (Ch. 162)) to include Cluster Housing Development as a recognized permitted or conditional use.

The ordinance requires that for every housing unit, a minimum amount of "common open space" must be provided in addition to private open space. The ordinance specifies that "Low Impact Development stormwater management facilities" can be located in the common open space where they are "integrated with" amenities such as landscaping, trails and paths, seating, and water features.

Transferable Development Rights

Transferable development rights (TDRs) are a variation on traditional zoning. They are used when the goal is to limit development in a sensitive area to protect resources—like wetlands, open space, or farmland—and to concentrate development in another area. Instead of simply imposing limits on development in sensitive areas, this approach recognizes the development rights associated with the areas where development is limited and allows the rights to be used in ("transferred to") other areas.

TDRs are based on the **concept that the development rights associated with land can be separated from the land itself.** With TDRs, a landowner in a sensitive area where development is limited (or even prohibited) by a zoning ordinance can sell their development rights to someone wishing to develop in other areas of the community (where development *is* desired). Typically, the purchase of these TDRs allows a developer in the receiving zone to exceed the normal zoning (or subdivision) limitations on density, height, or other requirements. The **wetland owner whose development opportunities have been limited by a zoning ordinance not only keeps the undeveloped property but also makes money on the development *potential* of the land**. At the same time, developers in areas where development is desired (or can be better tolerated) can engage in more intensive uses of their property than would otherwise be allowed.

TDRs can be used to protect wetlands and surrounding uplands but are best used where there is (1) a substantial area to be protected, to make the transaction economically worthwhile for the developer purchasing the TDRS; and (2) a practical limit on the amount of developable land that is otherwise available in the municipality, to create a demand for the TDRs in the first place. For example, TDRs have worked successfully to protect farmland in areas where suburban development pressure is high.

We're interested in Exploring a TDR Ordinance: *Check out* Dane County, Wisconsin's Technical Support Resources

Dane County, Wisconsin has established a **legal and technical support framework** that helps local town set up their own TDR programs. The county has developed extensive resources that are available for free online: a guide for town planners, a model TDR ordinance, a sample town resolution, and a template for th necessary deed notice. There are two types of overlay zones used to implement the program: TDR-S for protected areas where the transferable rights originate; and TDR-R for areas where the purchased rights can be received and applied. The county maintains an **online map** of the existing TDR zones, which further identifies the TDR-S parcels by the legal instrument used to protect open space (e.g., easement, deed restriction). According to the Dane County Planning Division website, TDR programs have been adopted by 14 towns in the county to date. To encourage more towns to participate, Planning Division staff are available to answer questions, provide TDR-related resources, and review a town's proposal in advance of a vote on adopting it.

Incentive Zoning (or "Bonus Zoning")

Incentive or bonus zoning is similar in concept to transferable development rights, except that the extra development rights are generated and used by the same developer (rather than purchased from another landowner). **Incentive zoning establishes a standard set of minimum conditions that all development in the zone must meet, as well as an optional set of incentives that the developer can choose to meet in exchange for more flexibility.** For example, an incentive zoning ordinance might allow a developer in a particular zone to build at a higher density than is normally allowed in that zone if the developer agrees to set aside additional open space.

Incentive zoning can be effectively used to protect wetlands. For example, in an area where stormwater runoff is a concern, incentive zoning could allow a developer to exceed height limits or construct larger multi-unit dwellings than are normally allowed if the developer reduces impervious surfaces by providing underground parking, creating artificial wetlands, or establishing native vegetation. The developer is not required to do any of these things, but there is an incentive to propose one or more of them as part of the development plan.

However, incentive zoning should not be relied on to accomplish wetland protection on its own, since its effectiveness depends on developers individually deciding that the bonus is economically worthwhile for their projects. It is best used as a way of encouraging a trend toward behavior that already has other factors in its favor. For example, in areas where stormwater or zoning requirements already call for maintaining open space, incentive zoning can provide a bonus where wetlands are restored as part of that open space.

Consider: Urban Growth Boundaries

A local government may use its zoning authorities to define an urban growth boundary within which urban infrastructure and development are authorized and encouraged, and outside of which they are discouraged. The boundary line is used to accommodate foreseeable development needs in a relatively compact area within which municipal services can be provided. Outside the boundary, development is restricted or encouraged at a much lower density. This technique is used to control exurban sprawl and to encourage infill (development of vacant lots and rehabilitation or replacement of obsolete buildings) and compact development of urban centers. Frequently, this approach also streamlines development approval processes within the boundary to provide a further incentive for development to occur in this area.

An urban growth boundary can have incidental benefits for wetlands, since certain wetland areas slated for protection may be outside the boundary and thus be spared some of the development pressures they would otherwise experience. However, by concentrating development inside the growth boundary, particular care must be given to wetlands *inside* the development area, which may be adversely affected.

Floodplain Ordinances

Riparian wetlands (those found along river corridors) are often degraded and destroyed by development in floodplains, by natural disasters, and by attempts to reduce the impacts of natural disasters. For example, many thousands of acres of valuable riparian and wetland habitat have been lost through the construction of flood control projects, such as dams and levees. Some measures to mitigate the impact of floods can bring additional benefits, such as preventing damage to buildings or facilities while protecting critical habitat, providing opportunities for recreation, providing flood storage, or enhancing other natural resources. Examples of these mitigation actions are the acquisition and relocation of flood prone buildings and the preservation of steep slopes subject to mudslides or landslides. Local governments can develop flood control policies that seek to avoid permitting development in floodplains and structural flood control projects that can protect riparian wetlands from being destroyed and degraded.

Local governments have a very good policy reason to adopt floodplain ordinances: the Federal Emergency Management Agency's (FEMA) Federal Insurance and Mitigation Administration runs the **National Flood Insurance Program** (NFIP), which makes government flood insurance available to residents of communities adopting and enforcing floodplain management ordinances that represent sound land use practices. More than 20,000 communities participate nationwide. FEMA has published an online **community status book** which lists all of the communities participating in the flood insurance program. As of February 2026, the community status book shows that over 400 Arkansas communities are participating.

When a community chooses to join the NFIP, it must require permits for all construction or other development in these areas. Arkansas state law explicitly authorizes cities, towns, and counties to "enact, adopt, and enforce ordinances, building or zoning codes, or other appropriate measures regulating, restricting, or controlling the management and use of land, structures, and other developments in flood-prone areas." (Ark. Code §14-268-104.) The law goes on to clarify that such measures may (among other things): restrict development and use of land that is exposed to flood damage; guide development of proposed construction away from flood hazard areas; and assure the adequacy of water systems that may be affected by flooding. When a community adopts an ordinance under this law, it must appoint a floodplain administrator to administer and implement the ordinance and any related local codes. This law authorizes communities to develop strict guidelines for permit applicants seeking to build in floodplains and riparian wetlands.

At the state level, governors designate an agency in their state government to coordinate that state's NFIP activities. These agencies then assist communities with developing, adopting, and implementing floodplain management measures. In Arkansas, the **agency** is the Natural Resource Division within the Department of Agriculture.

Consider: Incentives to Protect Floodplains Beyond Minimum NFIP Measures

States generally have the option of requiring more stringent floodplain protection measures than those required to meet the NFIP baseline. In an effort to reduce potential flood losses, FEMA has created additional incentives for states and communities to enforce floodplain management requirements. The Community Rating System (CRS) is a voluntary incentive program that encourages communities to adopt floodplain management practices that go beyond the minimum requirements for NFIP eligibility, in exchange for "points" that can add up to lower flood insurance premiums for residents.

Subdivision Controls

Whether or not a local zoning ordinance is in place, many jurisdictions have enacted some form of subdivision controls. Typically, these are ordinances that **regulate the size of new lots** that can be subdivided from larger parcels of undeveloped land; **specify the dedication of lands** for utilities, roads, and sidewalks; **prescribe requirements for stormwater management** and other concerns; and **indicate how buildings may be placed on buildable lots** (setbacks from the property line, minimum design requirements, etc.).

There are various ways to use a subdivision ordinance to protect wetlands. For example:

- Subdivision ordinances can be used by cities and counties to require avoidance of wetlands by **excluding wetlands and other sensitive areas from buildable lot areas**.
- Subdivision ordinances can impose layout, platting, and infrastructure rules that **steer development away from wetlands**.
- In some subdivision ordinances, wetlands are included in the definition of stormwater infrastructure, environmentally sensitive areas, and/or open spaces and thus enjoy the extra protections or special treatment those categories offer.

There are additional tools that can help make subdivision regulation more effective, including the adoption of environmental guidelines (see text box below) and the use of proffers or exactions.

Can we use a county development ordinance for subdivision controls?

In Arkansas, a county development ordinance can be used to establish minimum requirements for the design and layout of a subdivision, including standards for lots and blocks, streets, easements, utilities, public rights-of-way. The ordinance can also set standards for improvements that the subdivision developer will build and pay for, like street grading and paving, curbs, gutters, sidewalks, water/storm/sewer mains, and other amenities. However, before a county can adopt a subdivision ordinance, it must first adopt an official road plan for the unincorporated areas of the county. For a plat in an unincorporated area of the county to be legally recorded, the county court must accept roads for perpetual maintenance and any dedication of land for public purposes (Ark. Stat. § 14-17-208).

Consider: Environmental Guidelines for Development

The effectiveness of subdivision regulations in protecting wetlands can be enhanced if the local government or planning board adopts environmental guidelines for development. These can set out the standard terms and conditions that must be taken into account for approving any development or subdivision. Typically, guidelines will cover the identification and long-term protection of environmentally sensitive features such as wetlands, as well as the techniques to be used during construction or other development activities, to prevent damage to these features. Often, the comprehensive plan and zoning ordinance will identify and articulate broad goals and objectives. Environmental guidelines provide the next level of detail and specificity, translating the broader goals and objectives into concrete actions that are applied as subdivision and development activities are approved. **Montgomery County, Maryland**, for example, has adopted **environmental guidelines** that, in the words of the guidelines themselves, "provide the detailed criteria and methods for implementation of these [plan] goals at the regulatory review level."

We're interested in **Subdivision Standards that Protect Wetlands:**
Check out **Chester County, PA Guidance on Conservation Subdivisions**

There are many resources available to help municipalities thoughtfully pursue their resource protection goals through ordinance development, some of which are free to use. Chester County, Pennsylvania's Planning Comimssion (CCPC) has developed a comprehensive **online guide** to help municipalities to write effective ordinances creating "conservation subdivisions." Like cluster development, a conservation subdivision involves preserving a "significant portion" of a parcel as open space, directing development away from important natural areas (e.g., high value wetlands). The **recommended approach** calls for first identifying the important natural resources on a site, then siting the dedicated open space areas to align with them.

The CCPC **Conservation Subdivision Design Guide** explains the basic pieces of a conservation subdivision ordinance and identifies the key design elements that can be tweaked to reflect a municipality's unique combination of existing conditions, needs, and priorities. It also provides sample ordinance language. While the guide is geared primarily toward municipalities in Chester County, there are many valuable considerations and recommendations that will be relevant to local governments in other states that are considering a similar approach.

The Site Approval Process

In addition to generally applicable subdivision controls, there is a process local governments use to oversee and approve *particular* development proposals, such as site plan approval and the issuance of grading permits and building permits. **Wetland conservation and mitigation of wetlands impacts can be integrated into these standard approval processes, but only if the proper ordinances are in place.**

Ordinarily, any significant development will trigger a requirement for local government approval of the site plan to be sure that all zoning and subdivision requirements have been met. These requirements include such factors as the provision of utilities, sewerage or on-lot disposal, traffic plans, erosion controls, open space, and safety. In addition to site-plan approval, many jurisdictions also require an application for issuance of a grading permit before any land clearing activities begin. This ensures that **all necessary erosion and water quality controls are in place**. Building permits are required by most jurisdictions before construction activities or substantial modifications of existing structures can be undertaken and are required even for activities by individual landowners. Each of these approval processes provides an opportunity to assure that the development activity is in compliance with required standards (i.e., standards set out in ordinances), including standards that may affect wetlands.

Development Impact Fees

Subdivisions and development require approval by local governments. Because the development of new subdivisions can mean additional expenses for the municipality where they are located—by increasing the need for roads, public services, schools, park land, and open space—many municipalities will only grant subdivision plan approval if some provision has been made for those services. In Arkansas and other states that allow "exactions," the local government requires the developer to provide something in exchange for the cost of the new or expanded infrastructure. In Arkansas, state law authorizes cities and towns to charge a “development impact fee” for that purpose.

To be considered lawful under state law, these fees must be authorized by a local ordinance, imposed only on new developments (and in proportion to new public facilities demand), and spent exclusively on the planning, design, and construction of new or improved “public facilities” (Ark. Code § 14-56-103). The law defines public facilities to include systems for stormwater drainage, parks, recreation, and open space (among other things). **In theory, development impact fees could be spent on acquiring or preserving wetlands where the wetlands functioned as stormwater drainage infrastructure, a park area, and/or open space.**

Thus, development impact fees can help facilitate wetland protection in the context of development of a particular site. However, these fee arrangements are generally not sufficient to provide comprehensive protection of wetlands, since they depend upon the submission and approval of specific development proposals, the timing (and focus) of which are not within the control of local governments. Development impact fees are, **at best, a worthwhile supplement to a more comprehensive set of zoning tools** aimed at conserving wetland assets.

The Wetland Buffer Ordinance: A Key Tool for Leveraging Wetlands' Full Value

Why Wetland Buffers Are Important

The upland area surrounding a wetland serves as the wetland's "buffer" zone. **The strip of land surrounding the boundary of an actual wetland is critical for sustaining and protecting the wetland's health**. A proper buffer is essential for getting the promised "bang for your buck" from wetland assets. This is because the functions and services that wetlands provide to communities can significantly diminish in value when wetlands are surrounded by parking lots, buildings, or other pollution-generating or incompatible land uses that reduce their hydrologic functions, change their vegetation, and reduce the quality of the habitat.

Well-designed and maintained buffer areas protect and maintain wetlands' functions in multiple ways. Studies have shown that protecting a vegetated buffer around a wetland can reduce the severity of local water fluctuations and flooding due to storms.[31] Buffer zones affect surface water temperature, and they work as "pre-filters" for sediments, nutrients, and other pollutants from runoff that is flowing into the wetland. By maintaining habitat for aquatic, semi-aquatic, and terrestrial wildlife, the buffer zone provides organic matter to the wetland ecosystem and can serve as an important corridor or connector among local habitat patches, facilitating movement of wildlife through the wider landscape. By keeping the wetland healthy in these ways, **the buffer zone works to ensure the wetland is performing up to its potential in areas tied directly to a local government's interests, like stormwater management, reduced risk of flooding, and protection of water quality.**

Wetland buffer areas are not protected by the Clean Water Act (nor state programs that implement the Act's minimum requirements). This means that in Arkansas, **it is up to local governments to provide these areas with enough regulatory protection to be sure wetlands are healthy enough to perform the desired ecosystem services.**

How to Craft a Wetland Buffer Ordinance

To be enforceable, a local wetland buffer requirement must be **in the form of a local law or regulation**, like an ordinance or code (for a city or county) or a bylaw (for a special district, board, or commission). Most local wetland buffer ordinances are part of the zoning code or land development/subdivision regulations.

However, those are not the only paths to adopting a wetland buffer ordinance. Other areas of local law where they might be found include, but are not limited to, a separate natural resource section of the local code; a local policy adopted to implement a state-level wetlands or critical areas law; or local erosion control or stormwater management laws/regulations. Often, a local government will include buffer protection as part of an ordinance that establishes protections for the wetland itself. Another approach is for the local government to adopt an ordinance that only regulates the buffer strip; in these cases, it is usually because there are already federal or state protections in place for the wetland itself.

Regardless of where it is found in the local policy framework, an effective wetland buffer ordinance has six key ingredients: purpose statement; definition of the "wetlands"; the width and nature of the buffer zone; types of activities that are prohibited and allowed in the area; minimum acceptable conditions; and a process for implementation and enforcement.

1. Purpose of the Ordinance

The ordinance should have a **clear statement of its purpose, spelling out the local government's reason(s) for enacting it**. The purpose statement is more than a formality: it helps clarify the scope of the ordinance, informs how developers and government officials will interpret the ordinance, and explains the legal authority that allows the city/county to adopt the ordinance.

Purposes for wetland buffer ordinances include natural resource protection, flood hazard avoidance, and/or public health and safety, among others. It is possible to include more than one purpose for the same ordinance, where the community is using the buffer ordinance to pursue multiple local goals.

For example, a Bay County, Florida **ordinance** declares that "wetlands are a valuable natural resource worthy of protection," and that its ordinance establishing a setback distance from wetlands is intended "to provide a buffer between wetlands and development, preserve water quality, limit sediment discharges, erosion, and uncontrolled stormwater discharges, and provide wildlife habitat." (Bay County Land Dev. Regs. § 1909.) A model ordinance for wetland and riparian setbacks, developed by the Northeast Ohio Areawide Coordinating Agency, provides a comprehensive list of purposes; it can be accessed **here**.

It is important to keep in mind that **the way the ordinance's purpose is defined and articulated will affect other important elements of the ordinance**, including the size (width) of the buffer zone and the activities that are prohibited or allowed there. Importantly, the purpose statement defines the extent to which the ordinance regulates the wetland area and the buffer both, or whether it is primarily aimed at the buffer while leaving wetland regulation to federal or state oversight.

2. Defining "Wetlands" and Scope of Coverage

A key aspect of a wetland buffer ordinance is how the "wetlands" it applies to are defined in the law. Typically, ordinances take one, or some combination, of the following approaches:

(i) The ordinance creates its own definition of "wetland" that is broader than the federal/state definition;
(ii) The ordinances uses the definitions of "waters of the state" and/or "wetlands" found in state or federal laws/regulations;
(iii) The ordinance identifies one or more specific wetland types or classes of wetlands to be protected under the ordinance (which may be assigned different minimum buffer widths);
(iv) The ordinance is primarily aimed at the protection of stream and river corridors and floodways (known as "riparian corridors"), but it provides for coverage for wetlands where they are found within or adjacent to these areas; and/or
(v) The ordinance protects specifically-identified, mapped wetlands within the jurisdiction (instead of using a generic definition that applies to any and all relevant sites within the municipal boundaries).

The definition of covered wetlands is tied closely to the local government's specific goals and level of regulatory ambition. For jurisdictions wanting to protect as many remaining wetlands as

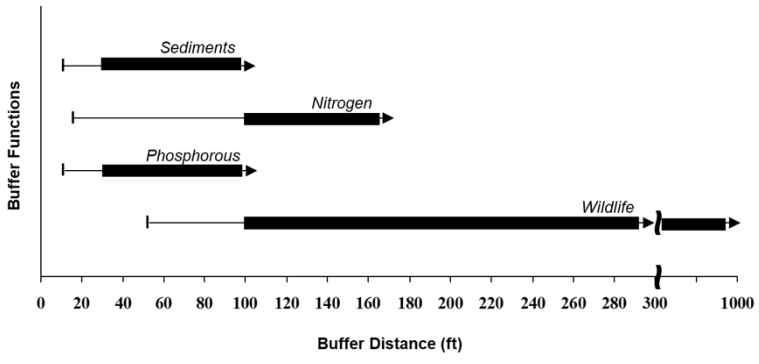
possible, "wetlands" can be defined expansively. In cases where wetland protection goals are more targeted or where local economic and/or political realities limit the government's ability to adopt sweeping new restrictions on development, a narrower definition—e.g., capturing only the highest value wetlands, or the least controversial wetland areas from a development pressure perspective—may be appropriate. The definition also can be used strategically to fill gaps in the state and/or federal regulatory regime; for example, some towns in New York have adopted ordinances offering protections for wetlands under 12.4 acres in size, which is the lower limit of the statewide wetland program's jurisdiction (e.g., **Southampton, New York**).

3. Defining the Nature and Size of the Buffer Zone

Across the country, we see local governments use a variety of approaches when defining the buffer area. In some places, the buffer is framed as a "regulated area" where activities receive extra scrutiny during the development approval process. In others, the buffer is defined as a strict "non-disturbance area" where natural vegetation must be kept in place. Some ordinances define a non-disturbance buffer area, then also establish an additional "setback" distance for buildings from the outer edge of the buffer.

The size of the buffer is measured in distance (typically in feet) from the edge of the "wetland." When it comes to how wide the buffer zone will be, the local government must rely on solid science – both to achieve an effective result and to survive possible legal challenges (see box below). There have been many scientific studies on effective buffer sizes for water quality and habitat. In general, the research indicates that wide, densely-vegetated buffers are better than narrow, sparsely-vegetated buffers. However, **wetland buffers are not one-size-fits-all, because the minimum size necessary to provide a particular level of function will depend not only on what the desired functions are, but also other factors** like the sensitivity of the wetland, the intensity of the surrounding land use, and watershed characteristics. A multi-function wetland's buffer should be sized to meet all of the functions that have been identified as being locally important.

The graph below is provided here as a general demonstration of how the appropriate buffer distances will vary depending on the buffer's function(s) and the ordinance's goal(s). It is not meant to be a prescription for buffer distance in any particular situation.



The thin arrow represents the range of potentially effective buffer distances for selected pollutant removal and ecosystem functions as suggested in the science literature through 2008. The thick bar represents the buffer distances that may most effectively accomplish each function (30 - > 100 feet for sediment and phosphorous removal; 100 - > 160 feet for nitrogen removal; and 100 - >300 feet for wildlife protection. Depending on the species and the habitat characteristics, effective buffer distances for wildlife protection may be either small or large.

Consider: Avoiding "Takings" Issues

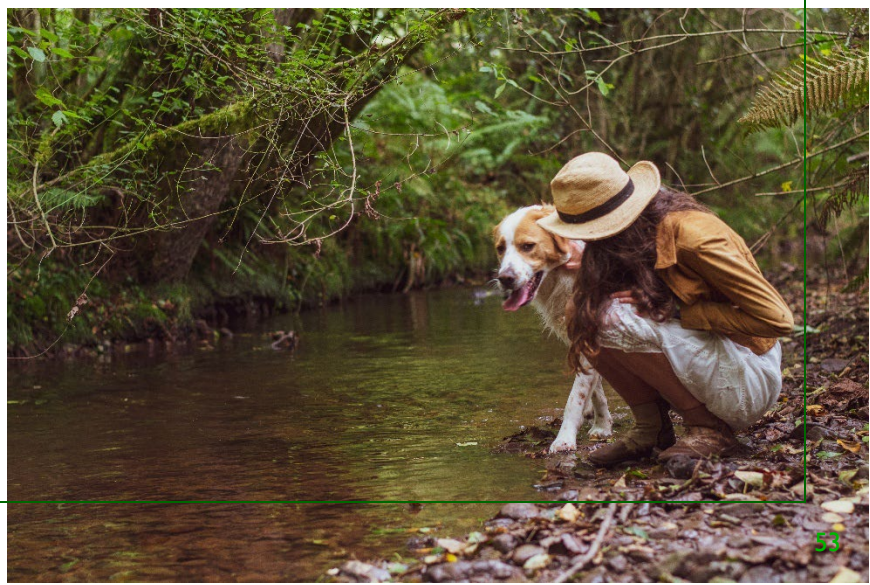
If an ordinance uses a very broad definition of covered "wetlands" *and* imposes strict prohibitions on land use in those areas, it might increase the risk of landowners claiming that the result of the ordinance is a regulatory "taking"—a land use restriction so extreme that the government might as well have physically seized the property—for which they are owed compensation from the government. A detailed legal analysis of takings doctrine in Arkansas is beyond the scope of this report, but in general, local ordinances may be more defensible where there is a strong factual and technical record documenting the public health and welfare purposes behind the regulation and the connections between specific impacts and restrictions; definitions are clear; and there are provisions for variances. **Your local government's lawyers should be consulted when any ordinance, including a buffer ordinance, is being crafted.**

4. Activities Prohibited and Allowed in the Buffer Zone

There are different ways to approach the restriction or prohibition of activities in the buffer area. Many buffer ordinances simply prohibit any "disturbance," "excavation," and/or "building" within the buffer and then provide a separate list of other low-impact activities (e.g., park shelters, boat launches, walkways) that can be authorized with a permit. If certain activities are exempt from the ordinance, those are also listed separately.

Some wetland buffer ordinances also include outright prohibitions of specific activities, such as solid waste facilities, dams, and septic systems. It is common for a buffer ordinance to identify a limited number of essential or water-dependent uses that are allowed as conditional uses with approval. Many ordinances also identify a set of limited-impact activities that are allowed within the buffer without having to go through a special review or obtain a permit.

Other buffer ordinances do not list prohibited activities and instead take a performance-based approach, stating that buffer conditions must remain sufficient to protect the wetland or its functions.



5. Minimum Standards for Acceptable Buffer Conditions

Buffer ordinances can do more than just prohibit disturbances and encroachments. Many also set standards for the establishment and maintenance of acceptable buffer conditions. For example, the ordinance can require that the buffer zone have specific types or densities of plants growing within its boundaries. In cases where the existing conditions do not meet the standard, **the first step to complying with the ordinance is planting the appropriate vegetation (and/or removing unacceptable or dead plants), and the second step is maintaining it.**

For an example of an ordinance with affirmative requirements to establish and maintain "acceptable" buffer conditions, we can look to Woodbury, Minnesota. That ordinance states in part that: "Acceptable vegetation may be retained in an undisturbed state without additional vegetation planting. If acceptable vegetation does not exist, buffer areas must be established in appropriate vegetation such as native grasses, forbs, shrubs, and trees. The buffer area cannot consist primarily of common or noxious weeds. After becoming established, the vegetation in wetland buffer areas must be left undisturbed. The requirement to leave the buffer area undisturbed does not prohibit the removal of dead, diseased, or dying vegetation, or the control of noxious or common weeds." (Woodbury, Minnesota Code of Ordinances §27-14 (d)(4).)

6. Process for Implementation and Enforcement

In addition to the substantive requirements, a wetland buffer ordinance should include procedural provisions that explain how it is implemented. At a minimum, it should be clear what the procedures are for determining whether the ordinance applies to a given situation, formulating and implementing acceptable "mitigation" of authorized impacts, and specifying whether and under what circumstances variances can be granted and decisions can be reviewed.

Even the most comprehensive and scientific ordinance will not protect community interests if it is not enforced. Enforcement requires information, so local jurisdictions that have adopted buffer ordinances must allocate sufficient personnel to monitor approved buffers to identify possible violations. By writing monitoring requirements into the law itself, the local legislature enacting the ordinance can help ensure that the local agency in charge of monitoring takes that responsibility seriously in the future.

2 LETTING THE LANDOWNERS LEAD

Non-regulatory initiatives and incentives play a critical role in wetland protection, especially in states with a strong culture of private property rights and/or where most of the land is privately owned. **Incentive-based approaches can help change the conversation from land use restrictions to partnerships**: they provide opportunities for landowners to take an active role in deciding to protect wetlands on their property and recognize landowners as long-term stewards of lands they know best, while also **helping to align the landowner's individual economic interests with the community's wetland protection goals**. It is true that incentive mechanisms alone cannot always accomplish the full task of protecting functioning wetlands in appropriate places, and in some cases, they will work best as supplements to other tools that can be targeted to particular parcels of land and water bodies. Yet non-regulatory programs and incentives have an important part to play, both generally and in this moment by helping protection efforts reach isolated wetlands that were once covered under the Clean Water Act's regulatory scheme. Where wetlands on a property may have previously been considered a regulatory burden, the right incentive program can turn them into a new economic asset that is ultimately more attractive than filling, developing, or selling the land.

This part of the Playbook is dedicated to exploring non-regulatory pathways for wetland protection that allow landowners to take leadership and ownership over the future of their natural assets**. The goal is to help local governments, community members, and wetland advocates identify, enable, or create common-sense incentives for voluntary wetland protection actions at the local level**. We begin with a refresher on the foundational steps of demonstrating the economic and social value of wetlands to private landowners and helping everyone come to the conversation about incentive opportunities with an open mind. Next, we discuss opportunities for local governments to create their own incentives to protect wetlands, like fee reductions or waivers. In Arkansas, however, municipalities cannot provide property tax incentives without specific authorization from the state legislature, and realistically, there is only so much a local government can do to establish its own wetland protection incentives. Thus, for an Arkansas community that wants to protect local wetlands, **one priority should be to help lower the friction between willing landowners and the state and federal programs that already exist.** Some of the barriers to increased participation may be ideological, but many (if not most) are likely to be practical, e.g., lack of awareness, the burden of paperwork, lack of match funding, over- enrollment in certain programs, and/or distrust or disinformation. This section provides **a summary of key state and federal programs that can incentivize voluntary wetland protection, while pointing out ways that communities can help get more of their neighbors enrolled**— and more local projects on the path to successful implementation.

Setting the Stage: Communicating with Landowners about Voluntary Programs and Conservation Incentives

Conversations about wetland protection are most productive when they begin with shared interests. Often, a good opening step is to ground the discussion in the everyday challenges that rural and rural-edge landowners are managing, such as crop risk, drainage costs, flood losses, soil productivity, and long-term property value. By describing wetlands as part of the working landscape on a property—storing water during rain and snow events, reducing erosion, filtering out pollutants like nutrients, and supporting water recharge—they are framed as assets instead of regulatory liabilities. Wetlands can help stabilize crop yields, lower infrastructure maintenance and repair costs over time, and establish eligibility for tax incentives and conservation subsidies, and discussing wetlands in terms of risk management and business resilience is likely to be more interesting to landowners than vague environmental or recreational benefits.

A second foundational step is **helping to translate wetlands' land management functions into concrete economics that are relevant to private landowners,** as well as to the greater community. For many landowners, the key question is not whether wetlands are valuable in the abstract, but how their own wetlands can contribute to their financial stability. Local context matters, and demonstrating wetlands' value is most effective when tied to familiar conditions and concepts: past flood events, common local challenges with drainage, or examples of neighbors who have successfully incorporated wetland or buffer restoration into their working landscapes for economic benefit.

Peer experiences often carry more weight than dry technical reports, so by using real local and regional examples instead of general theoretical concepts, wetland advocates can help landowners picture how their wetlands do and/or can work as part of a broader land management and/or alternative income strategy. Also, using field visits, demonstration sites, or case studies with visual aids can help illustrate how wetlands' benefits oftentimes can be harnessed without requiring major changes to land use and existing infrastructure. Many landowners approach conservation discussions cautiously, justifiably wary of government entanglement and the unknown consequences of entering into conservation programs. Seeing directly how landowners in similar situations have been able to align wetland protection with land productivity and financial stability can help landowners understand that the incentive programs exist to provide support for landowners' own sustainable stewardship, not impose new major burdens.

Ultimately, **the goal of these foundational steps is not to persuade or pressure landowners to enroll in conservation incentives, but to create the conditions for informed decisions**. When discussions begin from a place of mutual respect and practical relevance, they are more likely to lead to solutions that have benefits for wetlands, individual property owners, and communities at large.

Resources To Help Start Conversations about Voluntary Wetland Protection

There are many free resources available for community leaders, neighbors, and advocates hoping to start productive conversations with private landowners. Some of these include:

- The U.S. Fish and Wildlife Service's **website** links to simple, accessible videos about **How Wetlands Work** (Ohio DNR), **Wetlands and Water Quality** (from the Michigan State University Extension), and **Wetlands and Flood Protection** (from the Beaver County Conservation District).

- The USDA's Natural Resource Conservation Service's main website for conservation programs (**https://www.farmers.gov/conservation**) website provides farm-focused conservation information, including **how wetlands fit into broader agricultural land stewardship and how producers can engage** with various voluntary programs. One of the many useful resources housed there is a series of 90-second **Conservation at Work videos for viewers to "[l]earn about the benefits of conservation practices directly from the farmers, ranchers, and forestland owners applying them."** Searching the video library for the term "wetland" can help filter relevant results. Another example is an **"Ask an Expert" Q&A blog** sharing insights from a USDA staffer with expertise in agricultural wetlands and their water quality benefits.

- NRCS also maintains an interactive online **Story Map to share Success Stories** of landowners who have participated in the Wetland Reserve Easement Program. The featured projects include stories like that of the **Wiggers Family,** whose farm covers over 3,000 acres in northeastern Louisiana (Franklin Parish). After clearing over 1,000 acres and trying and failing to grow a profitable crop, the family enrolled 500 acres in the Wetland Reserve Easement program. Through the program, they planted bottomland hardwood trees and installed other conservation practices. A member of the family told NRCS, "We see deer, squirrels, bobcats, bald eagles, the occasional Louisiana black bear, and have heard from folks who have seen cougars in the area. Knowing this land is going to be here and only get better for my son and grandson is a wonderful feeling."

These resources, and others like them, can be shared directly with landowners or can be used to develop talking points for early conversations about incentive opportunities.

Local Economic Incentives

To a limited extent, local governments can establish and use their own economic incentive mechanisms to encourage landowners to conserve and maintain wetlands. Locally-led incentive mechanisms can be desirable because they encourage voluntary behavior that is consistent with a community's particular goals and values. Also, adding incentives can help increase acceptance of regulatory or planning objectives that the community is also pursuing.

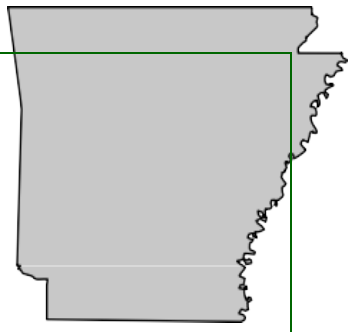
In some states, local incentives can include property tax policies like differential assessments or rates; in Arkansas, however, local governments are not allowed to create any preferential tax assessment category unless the state constitution or state legislature expressly authorizes it. (Ark. Const. Art. 16, §§ 5, 6.) This limitation means that in Arkansas, in addition to the zoning-related incentives and capital planning strategies covered earlier in the playbook, municipal fee waivers or reductions are the main options to use locally-crafted policies to deliver incentivizes for wetland protection.

Fee Waivers or Reductions

In Arkansas, state law authorizes cities to construct, operate, and maintain stormwater systems and charge fees for the services, and Arkansas courts have ruled that it is legal to charge different water and sewer rates based on different physical circumstances.[32] This means in cities and towns with monthly or annual stormwater fees in place, the local government can consider offering **stormwater fee credits (i.e., a reduction of the fees owed) to incentivize the use of green infrastructure** like constructed or restored wetlands and buffers.

In Fayetteville, for example, property owners can apply to participate in the Stormwater Credit Program. According to the **city**, stormwater utility customers can qualify for "renewable credits to offset the stormwater utility fee by taking actions on their property that manage stormwater – which would otherwise flow from their property – and reduce the burden on the City's drainage system." Restoring wetlands or stream buffers to retain more water on the property is one way to manage stormwater flow at the individual parcel level.

Other types of fees that might conceivably be reduced via credits or waived in exchange for wetland protection measures include development impact fees, floodplain development permit fees, grading fees, and vegetation removal fees. Also, many cities and towns charge fees associated with review and inspection by local officials of plans, subdivisions, and building sites. In theory, wetland-protective actions might be incentivized by reducing or waiving the cost of technical reviews and/or offering an expedited processing timeline.



State-Led Incentives to Protect Wetlands

State government agencies offer a broad range of assistance to landowners. Local governments that are aware of these programs can use them in their own planning efforts, can assist landowners in taking advantage of these programs, and can combine local government actions with federal and state assistance to private landowners to help accomplish watershed and wetlands-related goals.

Here we review some of the main state-led incentives that can be leveraged by local governments and citizens to help protect wetlands. The incentives come in various forms: tax credits, direct financial incentives, recognition programs, and technical assistance. The descriptions here are intended to help make local officials and wetland advocates generally aware of the range of available programs, but this is not an exhaustive list of all state-led incentives that could be relevant to wetland protection in Arkansas. While these descriptions include general statements about eligible project types, they are not comprehensive, and we recommend reviewing the most up-to-date status and eligibility information for a program before submitting any application.

State Tax Credits to Conserve, Create, or Restore Wetlands

Arkansas lawmakers passed the Wetland and Riparian Zone Creation, Restoration, and Conservation Tax Credits Act in 1995 to encourage private landowners to restore and create wetlands and riparian zones on their property. (Ark. Code § 26-51-1501 *et seq*.) That law created **a state income tax credit that is available to "any taxpayer" who engages in development, restoration, or conservation of wetlands and/or riparian zones**. The ensuing **Wetland and Riparian Zones Tax Credit Program** is administered by the state Department of Agriculture.

The amount of the tax credit awarded is equivalent to **100% of the actual project cost** (i.e., actual out-of-pocket expenses) **for a wetland creation or restoration project, *or* 50% of the fair market value of property that is donated to conservatio**n. There is a maximum credit of $50,000 per project, and projects must be approved by the Department of Agriculture before the credit can be claimed. Eligible project types include the **establishment of permanent vegetation, erosion control, berm construction, and water control structure installation**. Wetland projects must comply with specific standards set out in the law's implementing regulations, which provide that the project must "restore hydrologic conditions as close to the original condition as practicable," and "connect to other wetlands by corridors, where feasible," among other requirements. (CAR 209.09.13.) The eligible project must be maintained for a minimum of ten years after its completion.[33]

According to a 2019 **issue brief** from Pew Charitable Trusts, over $4.5 million in tax credits were approved between the program's establishment and the end of 2018. The same paper explained that according to stage agency staff, the greatest participation was concentrated in counties downstream of the Greers Ferry Lake dam on the Little Red River. The uptake level in this region was credited to the state's local outreach efforts in the area as well as word of mouth. The comparative success of the program in a region that had received outreach suggests that **there may be untapped opportunities for local outreach initiatives to raise awareness—and ultimately participation rates—in other areas of the state.**

Conservation Incentive Pilot Program

Arkansas has developed partnerships among state agencies, nonprofits, and the private sector to enhance wetland and wildlife habitat. One example of a **public-private partnership** is the Conservation Incentive Program, a pilot program supported by the Arkansas Game and Fish Commission (AGFC) and funded by the Arkansas General Assembly. As explained by **AGFC**, this $3.5 million initiative aims to **address Arkansas-specific wildlife and fisheries needs on private lands**—which make up 90% of the state—**by reimbursing expenses related to conservation practices.** A range of eligible practices that benefit wetland habitat management include activities that manage for native wetland plants, such as flooding and soil amendment. In September 2024, the state announced that almost 12,000 new acres of wetlands have been "placed under contracts to enhance habitat for waterfowl this winter" through the program; most of the projects will involve flooding rice fields during the waterfowl wintering period.[34]

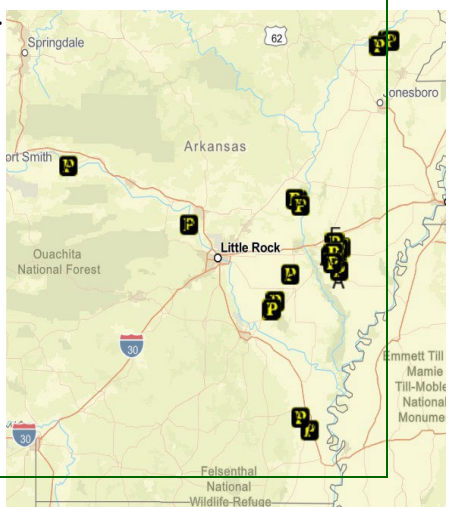
Waterfowl Rice Incentive Conservation Enhancement (WRICE) Program

The **Waterfowl Rice Incentive Conservation Enhancement (WRICE)** program was developed by the **AGFC** "to help keep waste rice available for ducks, geese and other migrating birds when they pass through each winter." **The rice farmers who participate still operate and harvest their rice fields as normal, but they receive additional income from AGFC in exchange for implementing a few waterfowl-friendly practices:** (1) leaving "stubble" on the field after harvest (instead of tilling); (2) flooding rice fields during waterfowl migration season; and (3) providing opportunities for the public to hunt on the property (with a permit) on weekends.

The payment per acre depends on the extent of a landowner's participation: rainfall-dependent shallow water development pays $25/acre; shallow water development with active pumping pays $50/acre; and allowing permitted hunting and wildlife viewing pays $100/acre. To be eligible, **rice fields must be within 10 miles of either a waterfowl-focused state Wildlife Management Area or national wildlife refuge**. AGFC has expanded the original program to include an additional income opportunity for landowners already enrolled in the federally-driven Wetland Reserve Easement Program: these participants can receive an extra $50/acre to allow public access to their properties for hunting and wildlife viewing. This is a good example of how state and local governments can use their own non-regulatory policies to further leverage the good work that is already happening under longstanding federal programs.

According to the **Arkansas Wildlife Federation**, enrollment has slowly increased since the program's founding in 2018, culminating in over 6,300 acres enrolled in 2023 (latest data). The map at the right uses pins to show the locations of 2025's WRICE fields.

To learn more about the opportunity, rice farmers or community leaders can contact the WRICE Program Coordinator at AGFC (listed on the website as **David Graves** as of February 2026) or visit the program **website**.



Source: AGFC's **GIS Interactive Map**

Agricultural Water Quality Loan Program

Non-point source pollution comes from diffuse sources, including runoff from agricultural lands. To help address it, the Arkansas Department of Agriculture's Natural Resources Division (NRD) administers the state's Agricultural Water Quality Loan Program (AgWQLP). The **AgWQLP handbook** describes the program as "a source of low-interest financing for conservation practices to reduce non-point source (NPS) pollution that impacts water quality."

The AgWQLP **makes it easier for landowners to finance on-the-ground conservation, including practices that can support wetlands**. AgWQLP is funded through a federal-state partnership program authorized under the Clean Water Act: the **Clean Water State Revolving Fund (CWSRF),** which provides financing to states for infrastructure projects that improve water quality.

The CWSRF funds are available for certain wetland-related projects in Arkansas because eligible conservation practices have been identified in Arkansas's EPA-approved "Non-Point Source Pollution Management Plan" (**Program Handbook** at p. 5). Implemented in partnership with the state's network of Conservation Districts (CDs), AgWQLP's **low-interest, long-term loans can be useful for capital-intensive water quality projects that, where properly sited and designed, can help restore and improve wetland health** and landscape hydrology.

A number of NRCS-approved conservation practices can directly and indirectly support healthy wetland functions. Examples of conservation practices that are explicitly eligible for AgWQLP financing include (but are not limited to) the construction of tail water recovery systems, ponds and fencing for livestock, land-leveling, and the purchase of no-till drills for planting. Persons eligible for AgWQLP loans—referred to as "Cooperators"—are landowners or lessees whose property is located in Arkansas and to whom "a [Conservation] District provides or has agreed to provide services, materials, and equipment with respect to the Cooperator's land within the [Conservation] District" **(Program Handbook** at 4). The NRD's Water Resources Development Section is responsible for making AgWQLP loans for eligible projects available to participating banks/financial institutions.

How the AgWQLP Works

To receive an AgWQLP loan, a Cooperator will first work with the NRCS and the appropriate Conservation District to develop a project plan. The project plan will describe the project's purpose and the logistics of project implementation, including the applicable NRCS conservation practice standard. Then, the Cooperator will submit a funding application to the Conservation District and Division for their approval. If approved, the Cooperator receives a certificate of qualification from the Conservation District and then contacts a participating financial institution to secure a loan. Next, the financial institution will conduct the underwriting review and, if the loan is approved, conduct all payments and further financial coordination with the Cooperator directly.

NRCS and/or the Conservation District will "provide technical assistance" during the construction of the conservation practices, with a final inspection to ensure the project's compliance with design specifications (Program Handbook at 3). The maximum principal balance for an AgWQLP loan is $250,000. For FY2026, the interest rate for the AgWQLP is 3% with a maximum term of 20 years or for the life of the project, whichever is less (id).

Increasing Local Uptake of AqWQLP and the Clean Water State Revolving Fund

According to the **most recent annual report** for the Arkansas Clean Water State Revolving Fund (which reports on other programs in addition to the AgWQLP) the Arkansas Department of Agriculture had anticipated assisting with 65 loan closures, for loans totaling around $420 million in Fiscal Year 2024-2025. In the end, the agency only "closed" 30 of 65 projects agreements from the 2025 "fundable list," for loans totaling just over $200 million; according to the annual report, there were 34 anticipated CWSRF projects that were "unsuccessful in meeting the required milestones," which prevented them from proceeding to the bond purchase agreement and loan closure.

For AqWQLP specifically, comparing the number and total of the successful loans with the $20 million identified in the **Intended Use Plan** (see p. 10) suggests that **millions of dollars of available AgWQLP funding are being "left on the table" each year.** For example, in **Fiscal Year 2025-24,** the AgWQLP resulted in new low-interest loans for just nine "projects implementing conservation best practices for agricultural croplands," bringing "cumulative binding commitments" for the AgWQLP to around $1.3 million (p. 11). According to **the annual report**, five of the nine projects funded in 2024-25 were in the same county (Arkansas County), which suggests **local factors like outreach, extra administrative/logistical assistance from a particular financial institution, and/or word of mouth might be influencing the rate of uptake**.

***Consider*: Identifying Broader CWSRF Opportunities**

Recent annual reports suggest that there is plenty of CWSRF loan money being left untapped in Arkansas. By **helping the state identify "fundable" projects for inclusion on the priority list/in Intended Use Plan** and then **ensuring those applications meet required milestones to close the loan,** a local government may be able to successfully **leverage the state's Clean Water SRF funds for other, non-agricultural projects that improve water quality and wetland health**. For example, the small city of **Eudora** used $6.5 million in SRF loans (and loan forgiveness) to replace and upgrade the water system, including improvements at the water treatment plant, in 2018.

In Arkansas, a vast majority of the state's CWSRF commitments are for "Section 212" projects, a category that offers opportunities for publicly-owned municipal utilities to improve their water treatment and management works. SRF funds might be harnessed, for example, to enable a municipality to finance a stormwater management project that incorporates natural

The CWSRF **Intended Use Plan for 2025-26** reiterates that there is $20 million for the program statewide, and this latest plan explains that the department has "started a pilot project to expand the link deposit program to include additional financial institutions to provide private lending for stream connectivity and other water-quality activities…" (p. 12).

Thus, for communities seeking to boost their local producers' enrollment in conservation incentive programs, **the AqWQLP may represent a viable alternative to better-known, chronically over-subscribed NRCS programs** like EQIP (discussed later in this section of the Playbook), at least for some project types and circumstances. And where eligible projects are identified, some targeted technical assistance with the application and on the administrative side generally may go a long way in helping local landowners take advantage of this opportunity.

Stream Team

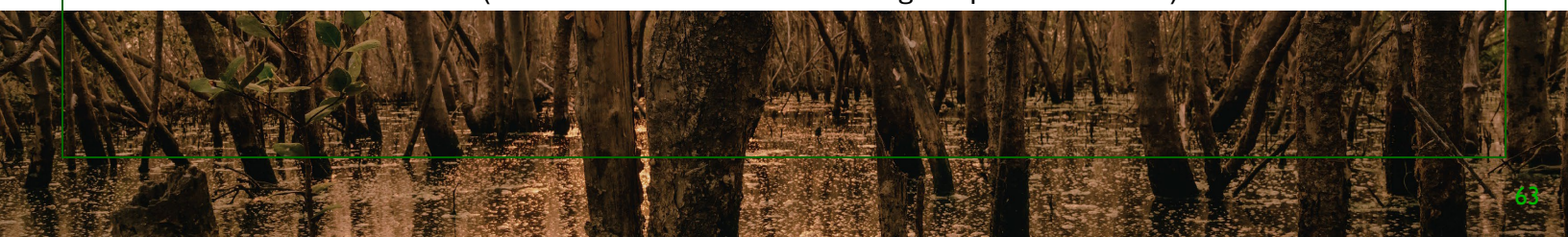
Streambank restoration projects can improve wetland health by restoring natural hydrology and floodplain connection and reestablishing wetland vegetation and hydric soil in the riparian corridor. The AGFC's **Stream Habitat** program has compiled information on a suite of funding programs that can be used alone or in combination to help landowners restore in-stream habitat and eroding streambanks. The AGFC itself can provide a portion of funding through the Stream Team Program; these funds can be used for up to 25% cost share (no more than $5,000) for projects that restore streambanks.

Other funding sources suggested by AGFC for private streambank restoration projects include the Southeast Aquatic Resources Partnership (administered by USFWS and Arkansas Wildlife Federation), the Farm Services Agency's Continuous Conservation Reserve Program (specifically the Riparian Forest Buffer and Marginal Pastureland Wildlife Habitat Buffer practices), and the NRCS's Environmental Quality Incentive Program. (*More information on these and other USDA programs is found in the Federal Incentives discussion, which comes later in this section of the Playbook*.)

Arkansas Forest Stewardship Program

In a state where most remaining wetlands are seasonally-flooded bottomland hardwood forests, forest management and wetland protection are inextricably linked. The ADA's Forest Stewardship Program exists to recognize and reward private landowners that are managing their forestlands for multiple uses, such as wildlife habitat, soil and water conservation, recreational opportunities, and future supply of timber products. The program **website** explicitly lists wetland restoration and management among the benefits of participation.

To be eligible, a landowner must have at least 10 acres of forest. Upon joining the program, the landowner works with a team of natural resource professionals to develop a written forest management plan. According to the Forestry Division **website**, the management plan serves as "a guide to help landowners make decisions based on soils, condition of the forest, and landowner objectives." The program then provides "technical assistance toward implementation" of the plan. **Landowner technical assistance**—which is offered for free by the Forestry Division—can include help identifying and controlling insects and tree diseases, information and advice about cost-share programs that pay at least half the cost of tree planting, site preparation, and timber stand improvement, and information and site-specific recommendations for wetland protection, among other things. Once the landowner is making progress implementing the plan, they become eligible for nomination and certification as a Certified Forest Steward (which comes with an official sign to put on the land).



The CWA Section 319 Program

"Nonpoint source" (NPS) water pollution means runoff and other discharges of pollutants from activities on land, which are not "point source" discharges from specific sources like pipes, culverts, or drains. Typical sources of nonpoint source pollution include agriculture, forestry, mining, and suburban, urban, and highway runoff. "Point sources" ofwater pollution are regulated under the Clean Water Act using permits (see earlier discussion of Clean Water Act regulatory programs), but **NPS pollution is generally not regulated federally**. Notwithstanding the lack of regulation, **NPS pollution significantly affects wetlands and wetland conservation.**

The U.S. Environmental Protection Agency (EPA) administers Section 319 of the Clean Water Act: the Nonpoint Source Management Program. The statute authorizes the EPA to provide grants to states, territories, and tribes for implementation of approved nonpoint source pollution management programs. To be eligible for Section 319 grants, states must first develop—and obtain EPA approval of—a nonpoint source pollution assessment report. In the report, states must identify waters impacted or threatened by nonpoint source pollution and the categories of nonpoint source pollution that are causing water quality problems. Second, states must develop (and gain approval from EPA for) a nonpoint source pollution management program, which becomes the state's framework for controlling nonpoint source pollution.

The Arkansas Department of Agriculture is the lead agency for the Arkansas Nonpoint Source Pollution Management Program. ADA-NRD has oversight over the NPS Grant Program, which uses the state's yearly allocation of federal Section 319 money for specific projects related to nonpoint source pollution management. This matters for wetlands because **riparian buffers and wetlands are primary tools for reducing nonpoint source pollution**. The 319 program requires a cost share: typically, federal Section 319 funds cover 60% of a project, and the local sponsor is responsible for the other 40%.

The **2024–2029 NPS Management Plan** for Arkansas emphasizes **watershed-based projects**, including wetland restoration projects, which can take place at the 8-digit HUC watershed scale or smaller sub-watershed levels (e.g., 12-digit HUC), and **identifies 12 priority watersheds** throughout the state for NPS-related funding and education opportunities (click on graphic at right for link). Per the plan, projects in the NPS priority watersheds are eligible for Watershed Project Funds under Section 319(h), while a separate pot of "NPS Program Funds" can be used for projects in non-priority watersheds (or watersheds without an EPA-compliant nine element watershed management plan).

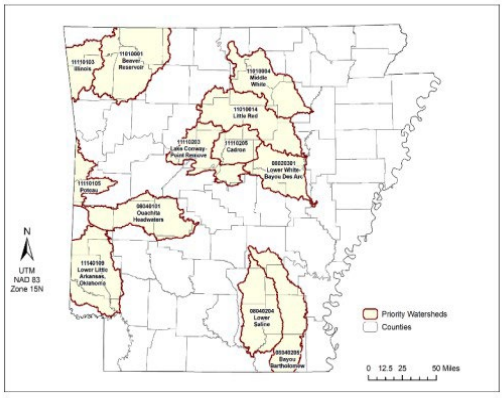


Photo Credit: Arkansas Department of Agriculture (cropped from original).

There are many ways to use Section 319 projects to protect wetlands, directly and indirectly. Notably, the 2024-2029 Arkansas NPS Management Plan highlights an area where **wetlands "could be highly effective for managing impacts" but are not commonly used in Arkansas: animal feeding operations (AFOs)** (p. 33). This suggests the agency making funding decisions might look favorably on proposals that would increase use of constructed wetlands and vegetated treatment areas to manage AFO impacts on water quality.

Federal Programs Supporting Wetland Protection on Agricultural Lands

Since many of our remaining unfilled wetlands are located in rural areas, and because agricultural activities can significantly affect wetlands and water quality, it is important for local governments to have a clear understanding of the programs that are available to promote wetlands conservation or protection on agricultural lands. In Arkansas, there are around 37,000 operational farms covering over 13.5 million acres (per **USDA**), with average size of around 360 acres. Over three quarters of the farms in Arkansas are small farms (with under $50,000 in annual sales), with family-owned and operated farms making up 95% of Arkansas's farms and over 80% of farmland. While agriculture remains a dominant land use in the state, profitability varies widely, and only around 42% of Arkansas farms reported a positive net cash farm income in 2022.

Broadly speaking, there are likely ample opportunities to **increase the overall uptake of federal incentive programs that can help Arkansan farmers stabilize income, improve marginal land's performance, and support the culture of long-term stewardship that is common on family farms.** Opportunities arising under specific programs, and strategies for how communities might harness them, are identified in the program-specific discussions that follow.

The **Natural Resources Conservation Service (NRCS)** and the **Farm Service Agency (FSA)**, two agencies within the U.S. Department of Agriculture (USDA), are responsible for administering the key federal programs at the intersection of agriculture and conservation. NRCS is the designated lead agency for the Environmental Quality Incentives Program, the Conservation Stewardship Program, the Agricultural Conservation Easement Program (which includes the Wetland Reserve Easement and Agricultural Land Easement programs), and the Regional Conservation Partnership Program. The Farm Services Agency is the lead agency for the Conservation Reserve Program. Due to their history of periodic reauthorization and funding through federal legislation known as the Farm Bill, these USDA conservation programs are sometimes referred to as Farm Bill programs; however, they can also be funded or supplemented through other federal legislation. For example, the 2022 Inflation Reduction Act provided around $20 billion in extra funding for NRCS programs to be spent in FY 2023 through FY 2026.[35]


Credit: Amy Reed (Central Arkansas)

For the most part, **NRCS field offices administer the on-the-ground implementation of the Farm Bill programs in partnership with locally led conservation teams**. (Locate your closest field office **here**.) The next few pages provide more information on key agricultural incentive programs to help communities start conversations with their district and state conservationists about relevant opportunities.

According to NRCS, locally led conservation is "based on the principle that community stakeholders are best suited to identify and resolve local natural resource problems. Thus, community stakeholders are keys to successfully managing and protecting their natural resources."

Environmental Quality Incentives Program (EQIP)

The Environmental Quality Incentives Program (EQIP), first established in 1996, is a voluntary working-lands conservation program that **helps farmers and ranchers address significant "natural resource concerns" while keeping land in production**. To be eligible, applicants must have control (as owner, operator, or tenant) over eligible land (cropland, forestland) and be engaged in agricultural production. According to **NRCS**, natural resource concerns to be addressed can include "excessive soil erosion, degraded soil quality, uncontrolled runoff of silt and agrichemicals to surface water, lack of habitat for pollinators and other wildlife, inadequate storage for livestock waste, and lack of age and species diversity in forestland." **To qualify for EQIP money, conservation practices must be new at that location and must address an identified resource concern on the farm or ranch.**

EQIP is a competitive funding program for active farms and ranches. In **Arkansas**, EQIP applications are evaluated "based on local, state and nationally developed criteria to optimize environmental benefits" of EQIP dollars. (More information about the competitive funding process is found on the next page.) Enrolling in EQIP involves signing a **short-term contract** (1-10 years) that commits the farmer to implementing **approved conservation practices** (see box.) NRCS provides participants with **free one-on-one help to plan, design, and implement** practices that work for a particular producer's farm or ranch.

NRCS Conservation Practices that Help Protect Wetlands

NRCS has developed a list of Conservation Practice Standards that explain the categories of activities that may be implemented as part of its conservation programs, including EQIP. In Arkansas, approved NRCS conservation practices that can help improve wetland and buffer ecosystems (directly and indirectly) include, but are not limited to, wetland enhancement (#659), wetland restoration (#657), wetland wildlife habitat management (#644), wetland creation on a site that was historically non-wetland (#658), water and/or sediment control basins (#350 and #638), vegetative barriers (#601), contour buffer strips (#332), critical area planting (#342), vegetated treatment areas (#635), shallow water development and management (#646), and silvopasture establishment (#381). Landowners can talk with their local conservation district or NRCS staff to help identify conservation practices that make sense for their circumstances. If there are national CPs that local stakeholders are interested in but have not been adopted for Arkansas, Local Working Groups are a good way to let the state NRCS office know.

EQIP does not cover the entire cost of installing new conservation practices, but the financial incentives are substantial: an **typical EQIP contract** involves NRCS paying for 75% of the cost of installing an approved conservation practice. The producer is responsible for covering the rest with non-cash contributions (like doing their own labor or contributing timber or other materials from their own land), paying out of pocket, or finding additional funding. However, **many applicants will qualify for up to 90% federal cost share**, including socially disadvantaged, beginner, and limited resource farmers/ranchers and veteran farmers. Those same folks can ask for half of their contact payments in advance to help cover up-front installation costs like materials and labor. (In general, NRCS pays the producer after the contracted conservation practice has been implemented and determined to comply with NRCS standards.) More detailed information on EQIP and links to the laws and regulations that govern the program are available through the **National Agricultural Law Center**.

Conservation Assessment Ranking Tool (CART)

The typical process for awarding EQIP contracts is for farmers to work one-on-one with their district technician on an application that is then submitted to the appropriate NRCS field office, where staff use the **Conservation Assessment Ranking Tool (CART)** to evaluate and score requests for EQIP and other forms of NRCS financial assistance. CART generates the score using information about current resource conditions (baseline) and the expected environmental benefits of conservation practices across multiple categories (e.g., soil, water quality, water quantity, wildlife habitat). CART was developed to provide NRCS with a consistent, data-driven approach for evaluating conservation opportunities while still allowing state offices to tailor the conservation priorities and ranking questions to fit their state's circumstances.

EQIP applications are grouped into **different "ranking pools," which in general are based on project types (water quality, irrigation, and wildlife habitat) and/or geographic region.** The ranking pools are defined in advance by the state NRCS office, and each pool is slotted to receive a certain amount of the state's total annual EQIP funding. Within each ranking pool, individual applications are scored based on several factors, such as how well the proposed project would address priority resource concerns; the environmental benefits to be generated; the number of acres to be improved; and cost-efficiency (in other words, how a project's "bang for the buck" compares to other proposals). At a predetermined deadline known as a "batching deadline" or "ranking date," the NRCS ranks all the eligible applications within each ranking pool based on the CART score. (In **2026**, ranking dates were in mid-January.) Once the proposals have been ranked from highest to lowest, the NRCS offers EQIP contracts to the highest-scoring projects until that ranking pool's funding allocation for that year has been used up.

NRCS has developed a simple, two-page fact sheet on the **Five Steps to Assistance** that provides a useful high-level overview that can be provided to landowners. NRCS encourages interested landowners to visit **www.nrcs.usda.gov/getstarted**.

Helping to Get Local Lands Enrolled in EQIP

Local governments and community organizations cannot apply for EQIP on behalf of farmers and ranchers, but they can play a role in helping their local producers access the funding to directly and indirectly protect wetlands. **The EQIP program is typically "oversubscribed," meaning there are more landowners who want to participate than the program can accept based on the available funding.**[36] According to the Institute for Agriculture and Trade Policy, Arkansas (alongside other Mississippi River states) has had one of the lowest acceptance rates in the country in recent years. A big reason for this is that more applications are submitted in the first place: in Fiscal Year 2024, there were more EQIP applications in Arkansas than any other state. This suggests that for local governments and advocates, the main barrier to increasing local uptake of EQIP opportunities is not that Arkansan farmers lack knowledge of the program or the general application process. Instead, t**he best opportunities may come from helping make your local farmers' applications more competitive** compared to others in the state. A few potential ways to do this are proposed on the next page. Some of these recommendations may apply more broadly—i.e., beyond EQIP to other Farm Bill programs.

1. Identifying and elevating local conservation priorities.

Local communities can provide their input about priority resource concerns to the State Conservationist, who is in charge of setting the state's official priorities for conservation funding programs. One way is to channel local input through direct communications with one or more members of the State Technical Committee (STC), which is required to include representatives from federal and state agencies, non-profit groups, "agricultural producers, nonindustrial private forest land owners, and other professionals who represent a variety of disciplines in soil, water, wetlands, plant, and wildlife sciences" (7 CFR § 610.22). Some stakeholders may even be interested in joining one of the many topic-specific subcommittees (e.g., water quality, water quantity; grassland; soil health; wildlife), which are responsible for gathering on-the-ground input from Local Working Groups and passing it on to the larger STC; those interested in joining should contact the state conservationist (see next page). Technical Committees meetings , which can be attended virtually or in person, are **announced online**, and the same website houses notes from previous meetings.

Local government staff can also join a formal **Local Working Group**, which exist in **all 75 counties** in Arkansas. The LWGs are made up of representatives from NRCS, conservation districts, Extension Services staff, agricultural producers, non-profit organizations, and local governments and are convened to "provide recommendations on local natural resource priorities and criteria for conservation activities and programs." (7 CFR § 610.25.) For those interested in joining a local working group, a good way to start is by contacting your conservation district or the State Conservationist (see box on next page).

Participating in these processes can help make sure locally relevant natural resource concerns are designated as priorities at the state level, thus helping local producers' applications rank higher and be more competitive in their ranking pools. As an alternative or supplemental approach, it could help to document local priorities in official plans like hazard mitigation plans and watershed plans (see the Planning section of the Playbook), which are likely to reach the LWG or STC through some channel or other.

2. Mapping the high-opportunity lands.

Local wetland advocates can help by **identifying in advance the agricultural fields where EQIP-funded conservation practices would produce the greatest direct and indirect benefits for wetlands**. The NRCS hosts an online **tool** that will generate a county-specific Hydric Soils Report, and the **Web Soil Survey** provides detailed soil information by "areas of interest" (under 100,000 acres) selected by the user. The U.S. Fish and Wildlife Service's National Wetlands Inventory has an online **Wetlands Mapper** that uses mostly data from the 1980s, though for some areas**, historic data** is available and may help identify areas that were formerly wetlands before they were filled. By **overlaying wetland-related geospatial data** with priority watersheds, "impaired" streams (not meeting state water quality standards under the Clean Water Act), and the location of known flood-prone and marginal croplands, an advocate could **develop a list of local farms to target for outreach,** where wetland restoration or vegetative buffer projects would address multiple NRCS resource concerns at the same time—making them more attractive for EQIP funding.

3. Leveraging "Act Now" for early approval where possible.

As described in the box on the previous page, the typical process for awarding EQIP contracts involves NRCS waiting for a pool of applications to accumulate, then ranking all the eligible applications that

have come in by the batching deadline. A special process called **Act Now** is available to state NRCS offices and has been successfully used in Arkansas **in the past**. Act Now is a **streamlined process that allows NRCS to approve funding for some applications before the batching deadline**, akin to a "rolling" application system. To be approved early, an application must exceed a certain CART scoring cutoff (which has been pre-established by the state office). The purpose of the program is to fast-track approvals for top-scoring proposals that would have ranked highly enough to approved during the normal ranking process anyway. However, the funding for projects approved through Act Now comes from the same pot of money as projects approved later through the normal ranking pool process—meaning the more projects that obtain approval through Act Now, the less funding is available for all the proposals left to compete in the ranking pool come the batching deadline. Act Now will not always be an option, as the state can limit Act Now approvals to certain project types or time windows. However, **in a state where EQIP is always oversubscribed, applying through the Act Now process is likely a safer path to obtaining funding quickly** and should be encouraged where possible.

4. Joining forces with neighbors and partners to develop a project to be implemented through the Regional Conservation Partnership Program, which has its own dedicated funding to carry out EQIP (and other Farm Bill program) objectives.

The **Regional Conservation Partnership Program** (RCPP) is a special NRCS program focused on **collaborative approaches** to "on-farm, watershed, and regional" resource concerns.[37] When a project runs through the RCPP program, it involves not only landowners but at least one "project partner," a private third-party group with the "experience, expertise, and capacity to manage the partnership and project."[38] There is a **separate pot of funding available** for project types that are eligible for EQIP (and other Farm Bill programs) but run through the RCPP, which historically is less competitive than those programs' primary funding pools. In addition to **increasing approval probability in oversubscribed areas (like Arkansas), RCPP projects can also offer more flexibility and, crucially, can provide an opportunity to leverage larger, multi-farm projects with watershed-level benefits**. It might be more work to put a larger project together on the front end, but that can be accomplished with the help of private partners, and the benefits of the RCPP approach provide a valuable payoff. (More information on the RCPP and the types of projects it can fund is found later in this section.)

Consider: The Role of the State Conservationist in Setting Conservation Priorities

The NRCS state office is in charge of performing "conservation needs assessments" and establishes policies, priorities, priority areas, eligible practices, and program performance indicators. The NRCS State Conservationist meets with FSA, FSA state committees, state conservation agencies, state conservation associations, and other members of the State Technical Committee to identify priority areas for programs like the Environmental Quality Incentives Program and the state §319 program. Conservation districts typically drive the conservation needs assessment, which is intended to foster locally led conservation (**NRCS Manual 440, Part 500**), but ultimately the state-level priorities are established by the State Conservationist.

As of 2026, the State Conservationist for Arkansas is **Amanda Mathis**. The NRCS state office **website** provides her direct contact information: 501-301-3100 or amanda.mathis@usda.gov.

Consider: Hosting or Co-hosting Informational Opportunities

Most farmers are already familiar with the basics of the core Farm Bill programs like EQIP, but the process of identifying a broader range of project ideas and/or applying for a new type of NRCS benefits might feel too time-consuming for small farms without much administrative capacity. Local governments can partner with watershed groups, conservation organizations, Extension Services, and conservation districts to host information tables or Q&A sessions at local gathering places like farm supply stores, gas stations, and restaurants. Online, information can be shared using locally popular social media apps and groups. Bringing the information to landowners where they are helps make it considerably easier for them to take the first step of picking up a flyer and/or having a conversation. By inviting conservation district and/or NRCS staff, hosts can provide an opportunity to connect hesitant landowners with program officials on the person-to-person level that may feel less bureaucratic and intimidating. Where multiple landowners express interest in learning more, communities can set up workshops to explore the benefits of nature-based alternatives to common resource issues, or to review a specific program's application requirements and process in more detail.

Tackling the Issue of "Matching Funds"

Coming up with the 10%-25% portion of the project costs that NRCS does not cover might be a barrier to EQIP participation for many farms. The larger and more expensive the project overall, the larger the producer's share will be. When helping to educate local farmers about the full range of NRCS assistance opportunities, there may be opportunities to **encourage them to consider less-expensive, nature-based practices as alternatives to capital-intensive projects that achieve the same outcomes.** For example, a stream bank restoration project using traditional rock riprap is fairly expensive, whereas a nature-based approach using root wads and restoring sinuosity will generally be more affordable (both to implement and to maintain long-term) *and* offer additional benefits like improved wetland and floodplain function and habitat.

Across project types, local governments and wetlands advocates can help producers overcome the real or perceived cost share barrier by making them aware of strategies to meet the match requirement without having to provide 25% of the cost in up-front cash:

- Calculating and counting "in kind" contributions, which can include **a producer's own labor as well as use of their own machinery/equipment (e.g., for grading) and on-farm materials (e.g., for fence posts).** The NRCS Payment Schedule Handbook's **Cost Category Guidance Section** (§ 600.23) provides more information about what can count as a contribution toward the cost of conservation measures. Producers may also include "foregone income" in their non-cash contributions. (16 USC § 3839aa–2.)
- To help make the timing work, EQIP contracts may be written to allow **staggered installation** of conservation practices, spreading the out-of-pocket costs over time.
- Some farmers use FSA farm operating loans (under 7 CFR § 764.101) or **other input financing** for up-front costs
- Producers can pair EQIP funding with **state-led conservation funding programs** and/or watershed-based grants (as long as federal restrictions on duplication of funding are followed).
- Some non-profit organizations provide **financial assistance** specifically for meeting cost share.

Conservation Stewardship Program (CSP)

The Conservation Stewardship Program (CSP) is a voluntary working-lands program administered by the NRCS that **rewards agricultural producers for maintaining and improving existing conservation practices on land that remains in production**. Unlike programs that focus on installing new infrastructure (like EQIP), the CSP is designed for **operations that are already implementing good stewardship and are willing to take the next step** by enhancing soil health, water quality, habitat, or resource management systems.

NRCS staff work one-on-one with eligible producers to develop a "conservation plan that outlines and enhances existing efforts," consistent with the **management objectives of the individual farm.** Participants sign **5-year contracts** agreeing to adopt additional conservation activities to maintain and enhance conservation performance across the operation, expanding on the existing benefits to the farm of cleaner water, healthier soil, and improved habitat. In return, the producers **receive yearly payments tied to the conservation value of the management improvements**. USDA recently increased the minimum annual payment to $4,000, and the program also allows for "bundles" that pay more for a suite of conservation enhancement activities.

According to **NRCS**, the CSP "helps you build on your existing conservation efforts while strengthening your operation." Check out the CSP Mythbusters webpage to identify and help correct common misconceptions.

Because CSP builds on existing practices on a farm or ranch, it can be attractive to producers who want to improve their land's performance without retiring new areas from production.

Eligibility for CSP is broad, but it does require that the applicant be an **owner, operator, or other tenant** of eligible agricultural land and **meet minimum stewardship thresholds for priority resource concerns at the time of application.** Like EQIP, CSP is a competitive program, with NRCS ranking applications based on how effectively the proposed enhancements will address locally identified conservation priorities. Also like EQIP, many producers (including beginning, limited-resource, socially disadvantaged, and veteran farmers) may be eligible for higher payments and extra technical assistance.

Consider: How the USDA Extension Service Can Help

The USDA supports substantial technical assistance programs through the National Institute of Food and Agricultural (NIFA) and its **Cooperative Extension Service (Extension Service), which is affiliated with land grant institutions in every state and territory.** NIFA establishes nationwide priorities and guidelines, provides grants to complement state- and county-level investments, and provides oversight that **helps identify and scale up successes.** Land grant universities provide program leadership and staff, but local governments can serve as key partners and platforms for Extension Service programs by housing extension offices or even helping fund service providers. Much of the information about wetlands flows through programs on water quality, forestry, agriculture and soil health, and programs and initiatives related to community and economic development and climate/resilience may also be relevant. There are offices in all 75 counties in Arkansas, and you can quickly find information for an Arkansas Extension Location in or near your community using the U of A's **online hub**.

Agricultural Conservation Easement Program

The NRCS Agricultural Conservation Easement Program (ACEP) is a voluntary conservation program that helps **protect agricultural land and wetlands using long-term or permanent easements**. The ACEP program has two components (1): Agricultural Land Easements (ALE), which help keep working farms and ranches in agricultural use by preventing conversion to non-agricultural development; and (2) Wetland Reserve Easements (WRE), which restore and protect wetlands on private agricultural lands.

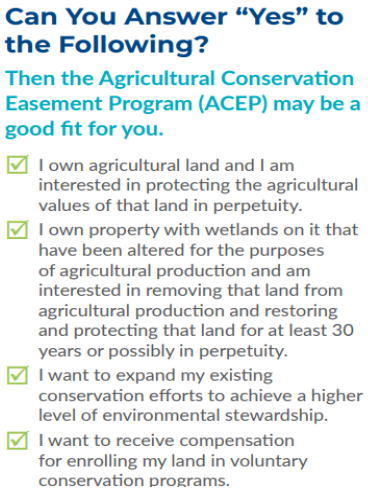
Agricultural Land Easements (ALE)

Unlike many other NRCS programs, **the ALE program includes a direct role for local governments and community non-profit organizations**: the federal money is provided to an eligible local "partner" like a county government or a land trust, who then uses the money to purchase an easement from the owner of eligible land. Eligible land must meet specific criteria, and the private landowners must be willing to set limits on future uses of the property in exchange for the money. The primary purpose of ALE is to **keep land in agricultural use by limiting non-agricultural uses like subdivisions or commercial development** through an easement that applies to the land for a fixed term of 30 or more years *or* permanently. The ALE program can be used to protect wetlands by keeping vulnerable land from being converted into development types that would reduce or eliminate the function and value of onsite and nearby wetlands. **By effectively preventing the filling, draining, and grading that typically accompany development activities, an ALE helps maintain the landscape conditions for healthy wetlands and natural hydrology.**

Benefits for landowners include financial compensation—which can be used to stabilize finances and/or pay down debt—and the ability to keep farming their land while knowing it is protected from development in the long-term. In some cases, ALEs help keep family farmland in the family by reducing the real estate market value and thus lowering pressure on future generations to sell. Benefits for local government partners include federal money coming to the area to help achieve long-term land conservation outcomes that might align with the local comprehensive plan, growth management strategy, and/or farmland preservation objectives. Working farmland typically generates fewer municipal service demands than developed land, so keeping land in agriculture can help maintain a balanced tax base and reduce the risk of a growing infrastructure maintenance burden. On the ecosystem services side, limiting non-agricultural development helps maintain open space, groundwater recharge areas, and floodplain functions that might otherwise be lost to impervious surfaces.

What is an easement?

An easement is a real estate instrument, and purchasing an easement is a real estate transaction. However, when someone pays for an easement, the land doesn't change owners. Instead, the easement's language controls what can and cannot be done on the land while the easement is in place. Easements can be used for many purposes, but some of the most common types grant some form of limited access (e.g., for a utility line or floodwater); prevent certain uses of the land (e.g., development or building structures); or require conservation of natural areas.



The NRCS has developed simple screening questions as part of its ACEP: Is ACEP Right for Me? Fact Sheet (Sept. 2021), which is reproduced in part above.

The ALE program is currently underutilized in Arkansas compared to neighboring states. In fact, between 2017 and 2024, there were zero ACEP ALE payments made to landowners in Arkansas.[39] Part of the reason is likely because there has been high interest in the Wetland Reserve Easement program, so the state NRCS office has focused its attention and resources on that program. However, as explained in the next section, there typically is more demand for WRE in Arkansas than that program can accommodate in a given year, leading to a backlog of applications and longer wait times to successfully enroll. There may be ample untapped opportunities for communities to help their landowners obtain similar results—i.e., federal dollars in exchange for maintaining farmland rather than developing it for non-agricultural uses—through the ALE program. For example, an ALE easement might be a good fit for a farmer that is hesitant to place the entire property under an easement but does feel comfortable enrolling their corners, turnrows, and/or other less-productive areas in exchange for federal payments and long-term water quality benefits for their watershed. Or in an area experiencing rapid population growth and/or commercial development pressure, local landowners could use ALE to ensure their parcels maintain their agricultural character.

Increasing local uptake of the ALE program is a potential strategy for communities with various resource concerns and objectives. Whether individually or in strategic groups, **ALE easements could be better leveraged in Arkansas to help make progress toward watershed and regional goals** like water quality protection, erosion reduction, and restoration of native grass prairie.

Wetland Reserve Easements (WRE)

The WRE program pays private landowners to restore and protect wetlands by placing a permanent or long-term easement on their agricultural land. In exchange for granting the easement, landowners receive **direct financial compensation, technical assistance** to restore natural wetland functions like hydrology and native vegetation, and an **opportunity for a new income** from allowing duck hunting, fishing, and other non-development recreational activities on the property in exchange for a fee. Unlike the ALE program, a WRE easement means that agricultural activity on the land will cease**: the land remains privately owned, but uses are tightly restricted to protect the restored wetland** long-term.

WRE easements are used on former wetlands that have been drained or altered ("converted") for agriculture but still have strong potential to function as wetlands if the landowner takes the land out of production and implements cost-effective restoration measures. Lands eligible for WRE enrollment include farmed wetlands, prior converted cropland with restoration potential, cropland or pasture that has reverted to wetland conditions, degraded rangeland or forestland where hydrology can be restored, riparian areas, lands adjacent to wetlands that support wetland functions, and certain previously restored lands (e.g., eligible CRP acreage. Per the **ACEP Manual,** to enroll land in a WRE easement, landowners generally must have owned the property for at least 24 months, though exceptions may apply in certain cases (e.g., afterinheritance).

To participate in WRE, a landowner must be willing to sell NRCS a permanent or long-term conservation easement *and* agree to the implementation of a **Wetland Reserve Plan of Operations (WRPO)** to "restore, protect, enhance, maintain, manage, and monitor the hydrologic conditions of inundation or saturation of the soil, native vegetation, and natural topography" of the land (7 CFR § 1468.5). The amount of the NRCS payment depends on the easement type. For a permanent conservation easement, NRCS will pay 100% of the easement value AND 75-100% of the wetland restoration costs. For a 30-year easement, NRCS will pay 50-75% of both the easement value and the costs of restoration. Once enrolled, NRCS works with the landowner to develop and implement the WRPO, which may include actions like plugging drainage systems, regrading land, and planting native species.

Participation in WRE allows landowners to continue to control access to their land. Landowners can lease the land for hunting, fishing, and other undeveloped recreational activities and may engage in other economic activities if approved by NRCS, like cutting hay, grazing livestock, and harvesting wood products.

To enroll in WRE in Arkansas, the first step is contacting the local NRCS field office. NRCS will discuss with the landowner whether their land may be suitable for wetland restoration and review other eligibility criteria for the program. If interested in proceeding, the landowner submits an application through NRCS, which evaluates the property based on factors like restoration potential and ecological benefits.

WRE applications are ranked competitively. If a property is selected to move forward, NRCS will conduct a formal site assessment to confirm that the land can be successfully restored and protected. If so, NRCS appraises the land to determine the value of the easement and presents the landowner with an offer. If the landowner accepts the offer and wishes to proceed, NRCS works through the legal process to place an easement on the property. Once the land is enrolled, the agency develops a restoration plan in partnership with the landowner and provides financial assistance to support restoration activities. Once active restoration measures have been completed, the land remains under the control of the owner and is used/managed in accordance with the easement terms to provide long-term protection of wetland functions.

Helping to Get Local Lands Enrolled in ACEP-WRE

The WRE program can be a good fit for landowners with frequently flooded and marginal cropland in Arkansas, especially in the Delta region, where historic wetlands were drained for farming on a massive scale. According to available **NRCS data**, hundreds of acres of land and hundreds of farmers/landowners are enrolled in Arkansas, and in 2007 the state was second in the nation in enrollment.

Local governments cannot place their own lands into WRE easements (the program is limited to privately owned lands and tribal lands), but they can play a valuable supporting role in facilitating the participation of their local landowners. Conservation districts, USDA/NRCS employees, and conservation groups tend to lead education and outreach on WRE, but there are still **opportunities for counties and other local governments to become more involved and help increase enrollment**. They include:

- Educating landowners about the **value of wetlands** and the benefits of converting difficult-to-farm land into a **more stable use**;
- Providing information about the **tax benefits of taking marginal land out of production**;
- Helping to **identify low-conflict, high-potential candidate properties** (e.g., frequently flooded fields) through watershed planning and/or leveraging the local conservation district's soil surveys;
- Focusing outreach on what WRE does *and does not* restrict, emphasizing retained ownership and compatible uses, to **help address justifiable hesitancy** around the duration and impact of the easement;
- Partnering with conservation districts for **targeted outreach to absentee owners**;
- Helping landowners **address worries about drainage impacts** on their and others' nearby lands, e.g., by coordinating early conversations with NRCS to address drainage system questions at a landscape scale or by convening neighbors to help resolve shared drainage concerns;
- **Supporting stronger applications** and dispelling myths about procedural complexity by providing direct assistance with the application process; and
- Providing **supplemental funding to increase the landowner compensation**, or acting as a bridge between non-governmental funders (e.g., conservation organizations) and local landowners. See below for information about a partnership approach, WREP, that involves a 10% contribution by the non-federal partner.

WREP: A Collaborative Approach

Wetland Reserve Enhancement Partnerships (WREP) are a collaborative approach within the Wetland Reserve Easement (WRE) program that **enable NRCS to work with "partners" like state agencies, conservation organizations, or local governments to target wetland restoration in priority landscapes.** Through **WREP**, partners help identify suitable lands, provide additional funding or technical support (minimum 10% of the total costs of easement acquisition and restoration implementation, with higher consideration given to applications with larger partner contributions), and coordinate outreach to landowners. Meanwhile, NRCS continues to hold the easement and administer the core WRE program functions. This partnership model helps scale up wetland restoration by aligning federal resources with local priorities and leveraging additional capacity to implement projects more efficiently.

A flagship regional success story is the Tri-State Conservation Partnership (TCP). The TCP was formed when the NRCS State Conservationists from Arkansas, Mississippi, and Louisiana sought to improve collaboration and leverage conservation partnerships in the Lower Mississippi River Valley. According to the group's **website**, it has "focused its efforts to support and strengthen the delivery of the Wetland Reserve Easements (WRE) program in the Mississippi Alluvial Valley (MAV) of AR, LA and MS," and since 2015, more than 75,000 acres of wetlands have been restored in the MAV using the WRE program. More information about TCP's successful approach is found at: **www.lmvjv.org/wrep.**

Leveraging Public-Private Partnerships to Scale Up Benefits with RCPP

The **Regional Conservation Partnership Program (RCPP)** was established by Congress in the 2014 Farm Bill. (16 U.S.C. § 3871.) It consolidated several preexisting partnership initiatives under the overarching goal of advancing the conservation, protection, restoration, and sustainable use of water, soil, wildlife, agricultural land, and related natural resources "on a regional or watershed scale" (id).

An eligible activity under the RCPP is any practice, activity, agreement, easement, or related conservation measure that is available under the statutory authority for one of the following programs: ACEP, EQIP, CSP (excluding a specific grassland conservation initiative), the PL 566 program, the Conservation Reserve Program, and the Healthy Forests Reserve Program. (16 U.S.C. § 3871a**.) Rather than funding individual producers through the standard program signup process, RCPP funds coordinated projects, led by "partners," that bring together multiple landowners and funding sources to achieve measurable conservation outcomes at a larger scale** than a single ACEP, EQIP, or other individual NRCS-funded project can yield on its own.

The RCPP program is flexible by design to **encourage multi-farm projects with compound benefits** while avoiding added red tape and procedural delays.[40] For RCPP purposes, eligible lands include any "agricultural or nonindustrial private forest land or associated land" where an eligible activity would help achieve conservation benefits. (Id.) **Types of partners can include:**

- Agricultural or silvicultural producer associations or other groups of producers;
- State, tribe, or local government agencies;
- Farmer cooperatives;
- Water districts, irrigation districts, rural water districts or associations, or similar;
- Municipal water or wastewater treatment providers;
- Colleges and universities;
- Conservation districts;
- Organizations eligible to hold an ALE easement; and/or
- Any organization or entity with "an established history of working cooperatively with producers on agricultural land" to address "local conservation priorities related to agricultural production, wildlife habitat development, or nonindustrial private forest land management" or "critical watershed-scale soil erosion, water quality, sediment reduction, or other natural resource issues. (16 USC § 3871a.)

The authorizing law provides examples of the types of projects that might be funded through the RCPP, which are not an exhaustive list and provide significant flexibility as it is. As long as a project is designed to achieve conservation benefits on a regional or watershed scale, it can include "infrastructure investments relating to agricultural or nonindustrial private forest production" that benefit multiple producers and address natural resource concerns like water quality impairments, drought, or wildfire; development and implementation of watershed, habitat, or other area restoration plans; or projects that "use innovative approaches" to leverage federal assistance with private financial mechanisms like performance-based bonds or an environmental market. Given the flexibility and scale of RCPP projects, they may be **a good fit for local communities and organizations who like the idea of relying on coordinated, voluntary participation by landowners to measurably improve wetland functioning at the watershed level.** As a bonus, while organizing an RCPP project may take a bit more time and planning on the front end, it ultimately can be **a way for local producers to receive federal conservation assistance more quickly than they would by going through oversubscribed programs** with multiyear waitlists, like EQIP and WRE.

Unlike other NRCS programs, landowners do not receive their conservation payments or services directly from the agency. For the RCPP, the federal dollars are channeled through a **partnership agreement signed by NRCS and a project partner, who then uses the money to assist multiple landowners** with installing maintaining eligible activities on eligible land. Partnership agreements can last up to five years (or more, if necessary to meet the objectives of the program).

Under a typical partnership agreement, the partner is responsible for defining the scope and timeline of the project, conducting outreach and education to producers who may potentially be interested in participating in the project, applying on behalf of participating producers for USDA technical and/or financial assistance, leveraging that assistance with "additional contributions" to help achieve the project objectives, and assessing and reporting on progress and outcomes. Importantly, an **RCPP project partner is expected to provide "a significant portion of the overall costs**" of a project, whether in the form of direct funding (cash), in-kind support (non-cash contributions, such as staff time), or some combination.

As of early 2026, Congress has directed USDA to use money from the Commodity Credit Corporation to carry out the RCPP program for the next several years. In Fiscal Year 2026, $425 million are authorized for the program nationwide; that amount goes up to $450 million for FY2027 through FY2031. (16 USC § 3871d.) For the **enrollment period ending January 2026**, multiple RCPP projects were enrolling landowners in Arkansas, including the regional **Conservation Delivery Network Open Pine RCPP,** which operates in both Arkansas and Louisiana; and the **War Eagle Creek Watershed Initiative**, which is taking place in Benton, Madison, and Washington Counties under the leadership of the Beaver Watershed Alliance.

RCPP in Action: REForest Arkansas

Another example of an ongoing RCPP project in Arkansas is the **REForest™ Arkansas** partnership between Restore the Earth Foundation and NRCS. The pilot project's goal is to "**restore 10,000 acres of marginal cropland in Arkansas into thriving forests**" using permanent conservation easements held by NRCS, while also creating revenue opportunities for landowners—an arrangement akin to what is available to individual producers under the standard WRE program, but directly implemented by Restore the Earth. Avoiding the need for time-consuming individual property appraisals, REForest offers the same payment rate (around $3,000 per acre of marginal cropland) for all participating landowners statewide. Restore the Earth provides all the participating landowners with free-to-them restoration services, including seed cultivation, planting seedlings, and five years of monitoring and documentation (which, according to **REForest**, may enable participating landowners "to benefit from future conservation recognition programs related to water quality and quantity, soil health and habitat improvements" down the road). The REForest initiative has a total cost of $64 million dollars: it leverages $32 million dollars from the RCPP with $32 million dollars of private investment. Ten percent of the available funding is set aside for historically underserved landowners. In **2025**, applications were accepted between March 4 and May 31.

Federal Forestry Incentives to Support Bottomland Hardwood Ecosystems

A number of federal assistance programs are targeted toward forests and forestry. Because well-managed forests can contribute to water quality and the protection of their own, adjacent, and downstream wetlands, local governments should be aware of these programs, especially in a state where most of the remaining wetlands are seasonally-flooded bottomland hardwood forest ecosystems.

Each state has a designated state forester within the state forestry agency. As of February 2026, the Arkansas State Forester is **Kyle Cunningham,** who can be reached by phone at (501) 580-5479. **States establish forest stewardship advisory committees to prioritize how federal funds are spent and what activities are eligible** for funding. In Arkansas, this is the role of the State Forest Stewardship Coordinating Committee. There are also state foresters the county level who help implement assistance programs. Many of these programs have strong potential to protect wetlands and water quality. One core program, the Forest Legacy Program, is described below, but it is not the only source of federal funding or assistance for forestry management.

The Forest Legacy Program

The Forest Legacy Program (FLP) is a voluntary, federal-state collaborative program that protects environmentally important private forestland from conversion to non-forest uses. The program works with willing sellers to place land under a conservation easement or purchase the land outright. Established by the Cooperative Forestry Assistance Act of 1990, FLP is administered by the U.S. Forest Service.

The Forest Service provides a majority of the program funding (with money appropriated by Congress) and establishes program eligibility criteria and guidelines. The state designates a lead agency—in Arkansas, it's the Department of Agriculture's Forestry Division—as well as an **"eligible entity" to hold FL easements, which tends to be either the state itself or a land trust**. Notably, the Department of Agriculture's Forestry Division **explains** that unlike most states, the Arkansas FLP favors "fee simple" (i.e., outright purchase) land acquisitions over conservation easements, due to the reduced monitoring and administrative requirements.

States identify and nominate Forest Legacy Areas based on environmental importance, development pressure, and forest values; once the U.S. Forest Service approves those areas, projects must take place within those boundaries to be eligible. The state is responsible for soliciting project applications from willing landowners and ranking them, before sending them to the U.S. Forest Service for final approval. As explained in a **recent request** to the Arkansas legislature for review of an FLP grant, "FLP selection is a nationally competitive process, and each state can submit up to five (5) new projects for funding consideration annually, not to exceed a total of $20 million." States are responsible for raising the non-federal match, which is typically 25% of project costs, although it can come from various sources (e.g., land trusts, local governments).

Local governments should be aware of federal-state forestry programs and the local state forestry agency representatives who are responsible for their areas. These professionals can provide significant assistance and can help local governments plan for conservation and wetlands-related activities in forested areas or areas targeted for reforestation.

Protecting Wetlands through Federal Flood Risk Reduction Programs

Watershed Protection and Flood Prevention (PL 566)

The Watershed Protection and Flood Prevention Operations Program (WFPO), commonly known as PL-566 after the Public Law that created it (Public Law 83-566), is a federal program administered by the NRCS that **supports locally led watershed planning and implementation**. This flexible program was established to **help communities address water-related resource concerns such as flooding, erosion, water quality, and watershed health**. WFPO projects are **developed and sponsored by local entities**—often conservation districts, cities or counties, or watershed authorities—which work in partnership with NRCS to plan and carry out improvements across a defined watershed. In Arkansas, for example, the NRCS is currently working on WFPO projects with entities including the Arkansas Black Mayors Association, East Arkansas Enterprise Community, and local jurisdictions.

Local sponsors work with NRCS to develop a watershed plan that identifies problems and proposes solutions tailored to local conditions. These solutions may include structural measures such as floodwater detention structures or channel stabilization, **as well as nonstructural approaches such as floodplain and wetland restoration**. Once a plan is approved, NRCS may provide technical assistance and can go on to approve additional financial support for designing and implementing the recommended measures. The local sponsor typically shares in permitting costs and certain other project implementation costs, then assumes responsibility for long-term operation and maintenance of any installed structures.

Unlike the other flood risk reduction programs described below**, a community does not have to experience a disaster before becoming eligible for WFPO funds.** Much more information on the WFPO program can be found on the **program landing page,** including the **National Watershed Program Manual and Handbook**, information on **sponsor eligibility**, and a **list** of NRCS staff who serve as State Watershed Program Managers. As of February 2026, the program manager for Arkansas is **Stephen Smedley**, who can be reached at 501-301-3141 or at stephen.smedley @usda.gov.

Emergency Watershed Program (EWP)

The Emergency Watershed Protection (EWP) program is an NRCS assistance program designed to **reduce threats to life and property following natural disasters such as floods**. Established decades ago (and then legislatively expanded over time), EWP **provides technical and financial assistance to landowners who have been affected by floods** via local sponsors such as counties and conservation districts. EWP assistance may include debris removal, streambank stabilization, gully repair, erosion control, and other measures needed to protect infrastructure and property from future damage when the next storm arrives. In certain cases, the program also allows NRCS to purchase floodplain easements that limit redevelopment and reduce long-term risk where restoration to pre-disaster conditions is not feasible. The Emergency Watershed Protection (EWP) program is not a wetland restoration program per se, but it can **provide key opportunities for protecting wetlands following natural disasters:** where authorized, EWP floodplain easements reduce pressure to rebuild in vulnerable areas and allow water to behave naturally in the landscape, which can directly and indirectly help sustain or reestablish wetland and buffer conditions over time.

FEMA's Hazard Mitigation Assistance Grants

The Federal Emergency Management Agency (FEMA) administers three separate Hazard Mitigation Assistance grant programs: the Hazard Mitigation Grant Program (HMGP), the Flood Mitigation Assistance Grant Program (FMA), and the Building Resilient Infrastructure and Communities Program (BRIC). All three HMA initiatives are intended to reduce and eliminate, where possible, the long-term flood risk of structures. While FMA focuses specifically on reducing risk to structures insured under the National Flood Insurance Program (NFIP), HMGP and BRIC* often address broader community resilience needs. Each program is authorized under different legislative authorities and differs somewhat in purpose, funding timing, and eligible activities.

- **Hazard Mitigation Grant Program:** The HMGP can contribute to wetland restoration and protection when funds are used to fund property acquisitions or floodplain management following a disaster. For example, when flood-prone properties are "bought out," the land must be maintained as open space in perpetuity; once vacant, these parcels can provide sites for wetland restoration or buffer reestablishment, though restoration costs must be funded from a different source.

- **Flood Mitigation Assistance:** The FMA program can support wetland restoration as part of a strategy to reduce repetitive flood losses to NFIP-insured structures. Like the HMGP, FMA funds can be used to buy out flooded properties and demolish them, leaving the property to be used in perpetuity for open space. More directly, FEMA explicitly recognizes nature-based solutions as eligible under FMA. Wetlands are among the most cost-effective nature-based flood mitigation tools, serving the FMA's goals by storing floodwater, slowing its flow, and reconnecting floodplains. In Louisiana, for example, FMA funds are being used for a large-scale marsh restoration project to reduce flood damage from hurricane storm surge.

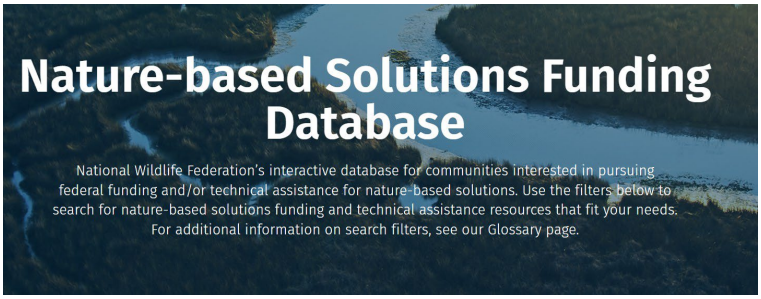
The applicability of these programs is limited, but for communities that have experienced flood disasters, FEMA's Hazard Mitigation Assistance Programs can be leveraged for meaningful wetland protection benefits. These programs generally require a cost share; see Part 3 of the Playbook for information about a new Arkansas state grant program specifically designed to help local governments with the match.

**The current status and near-term future of the BRIC program are uncertain as of early 2026: in April 2025, FEMA announced it was terminating the BRIC program and canceling all BRIC applications from Fiscal Years 2020–2023, with undistributed funds to be returned to the Disaster Relief Fund or U.S. Treasury. That action was challenged and the issue continues to play out in court. For that reason, opportunities to leverage the BRIC program for wetland protection are not explored in detail in this edition of the Playbook.*

Finding More Information on Federal Funding and Technical Assistance

The federal programs highlighted in the previous few pages are only a small sample of the many federal programs that could be leveraged by local governments and community groups to advance wetland protection in and around their communities. A longer list of funding programs that can support wetlands and other nature-based solutions is maintained by the National Wildlife Federation through its interactive **Nature-based Solutions Funding Database.**

The database includes a wide range of federal programs about which we have not gone into much detail here, but can provide meaningful wetland protection opportunities; it includes both cost share programs like the **Regional Conservation Partnership Program** and technical assistance programs like the Army Corps of Engineers' **Floodplain Services Management Program** and the federal interagency **Silver Jackets Program.**



Graphic Credit: National Wildlife Federation, https://fundingnaturebasedsolutions.nwf.org/ (cropped from original).

3 PROVING THE CONCEPT ON MUNICIPAL LANDS

Local governments are well positioned to lead by example on wetland protection and restoration because they control land, infrastructure, and day-to-day operational decisions. In Arkansas, municipal lands—such as **parks, utility properties, drainage corridors, and vacant lots**—often include wetlands, buffers, and/or areas suitable for restoration. By demonstrating success on their own properties first, local governments establish credibility around their pro-wetland policy messaging and build momentum to support broader wetland protection efforts across the community.

When a local government utilizes and manages their properties in a way that intentionally harnesses natural assets, it can help accelerate wider local adoption by demonstrating feasibility and economic viability of nature-based approaches and building institutional knowledge within the community. These projects **generate useful data** to inform future projects, and as or more importantly, they **help build a community's trust in nature-based technical recommendations and enable direct local observation** of how wetlands contribute tangibly to a neighborhood's flood resilience and infrastructure stability.

Leading by example on municipal lands can also strengthen a community's ability to attract external funding and partnerships. Funding and financing programs like the ones described in the previous section of the Playbook often prioritize projects that demonstrate local commitment and readiness. Municipal pilot projects help **show investors and partners that a community has real capacity to implement and maintain wetland and/or green infrastructure improvements**, which reduces the perceived risk that investing program resources and time in that community may not pay off. In some cases, a successful project on city- or county-owned land will become the foundation for larger watershed initiatives or regional collaborations.

Using municipal lands to model wetland stewardship provides an opportunity for local governments to translate their policy goals into visible, practical results. **Key actions described in the following section include:**

- **Putting municipal wetlands and floodplains to work as functional water infrastructure;**
- **Using municipal projects as demonstration sites to accelerate private adoption and attract investment in larger-scale projects;**
- **Maximizing the value of land acquisitions through systematic site selection and management decisions; and**
- **Finding the funding to make multi-benefit projects work.**

Photo Credit: Amy Reed (Port Sulphur, LA)

Putting Wetlands to Work in a Visible Way

Perhaps the most visible, credible leadership step that a local government can take is to **treat wetlands on public property as valuable infrastructure** instead of leftover open space.

Many municipalities already own properties that flood repeatedly, require regular drainage maintenance, and/or contribute to stormwater management costs. Converting these areas into functioning wetlands (using, e.g., restoration, hydrologic reconnection, buffer protection) is a way to turn recurring liabilities into long-term assets. When they are sited, designed, and managed thoughtfully, these projects can deliver recreational and habitat benefits for the community in addition to reducing flood risk and helping the municipal budget.

In practice, this means identifying city- or county-owned parcels where **wetland restoration on underutilized open space can solve existing operational problems.** Common candidates include parkland adjacent to streams, drainage easements, flood buyout properties, wastewater lagoons, and public works yards (i.e., places where the local government stores equipment, vehicles, and/or materials) located on low-lying land. Restoring wetland function in these locations can reduce the recurring cost of mowing and dredging. And by improving natural stormwater capacity, restored wetlands and floodplains should help extend the lifespan of and lower maintenance costs for the government's built infrastructure such as sewer pipes and pumping stations.

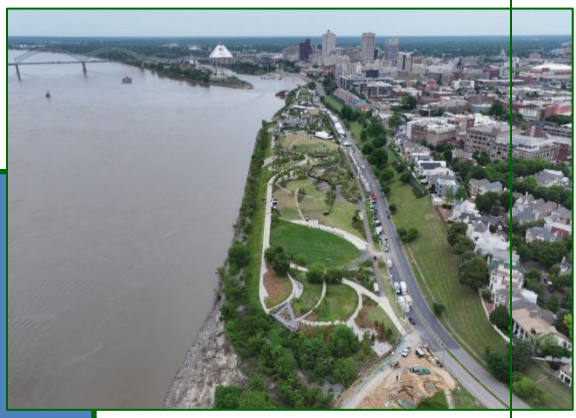


Photo Credit: City of Memphis (Tom Lee Park)

Recommended Steps

1. **Inventory** municipally owned lands (even the small, scattered parcels) with recurring flooding, drainage, or maintenance issues.
2. **Prioritize** sites where wetland and/or floodplain restoration would reduce baseline operating costs.
3. Integrate priority restoration projects into **local plans** such as capital improvement plans, stormwater management plans, and open space plans (*see Playbook Part 1*).
4. Design projects to **deliver multiple benefits** to the community (flood storage, filtering out pollutants, habitat benefits, recreational areas).

We're interested in Converting Vacant Land into Tangible Benefits for our Community: *Check out* the Redeveloped Riverfront in Memphis, TN

Not long ago, the city of Memphis, TN decided to convert **Tom Lee Park**, made up of around 30 acres **of previously underutilized riverfront land**, into a redesigned public space that stores floodwater, integrates recreation and civic spaces, and adds habitat value—all in downtown Memphis. Adjacent to the Mississippi River, the frequently flooded site was historically used as a city dump and dredge disposal area until it was filled, graded, and expanded into a 30-acre open space in the early 1990s in connection with an Army Corps dike wall project. According to the **Memphis River Parks Partnership**, who served as the catalyst for the park's redevelopment, "For years, the park sat mostly empty with few trees, little shade and no amenities."[41]

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In 2017, the mayor established a city task force to "reimagine the riverfront," including the Tom Lee Park area.[42] The planning process for the redeveloped park was guided by public input and involvement from stakeholders like Memphis River Parks, culminating in 2020 with an award-winning design by the firms Studio Gang and SCAPE.[43] The finished project, which opened to the public in 2023, can capture and slow a **million gallons of rainwater per year** through its network of rain gardens, **constructed wetland swales, marshy areas, and other green infrastructure**, which helps keep the river from rising during storms (and helps filter pollutants out before runoff enters the river).[44] When the river *is* high, the park helps hold the floodwaters harmlessly in its open spaces, which were designed to maintain natural floodplain functions. For those interested in learning more about this project, **Waterloop** has produced a 2-minute **video** that explains that park's many benefits in an accessible way. Also, right across the river from Tom Lee Park, **Ducks Unlimited Park** has converted former agricultural land into wetlands, forests, and trails.

Demonstrating Value to Scale Up Investment in Natural Assets

Municipally-led **demonstration or pilot projects can play a critical role in building technical and financial confidence** among local stakeholders, potential project partners, and future project proponents and investors.

When city officials, developers, farmers, neighborhoods, non-profit organizations, state and federal funding agencies, and philanthropy groups can see a wetland restoration project functioning on city property, they gain a concrete understanding of what it looks like for wetlands to work for a city. Pilot projects restoring wetland functions on relatively small sections of government-owned property can be an affordable way to prove to these stakeholders just how well local wetlands can manage stormwater drainage and reduce local flooding, enhance habitat by supporting native vegetation and improving the water quality of local streams, and/or coexist with recreational and civic features that provide added benefits to the community.

In addition to **socializing the concept of natural infrastructure** and **proving the local government has capacity to implement and manage it,** pilot projects are sources of **real, locally credible data** about construction costs and timelines, ongoing maintenance needs, and performance outcomes. (And in theory, having gained experience on the process side, the second, third, and subsequent projects should be easier, faster, and less expensive to deliver.) Studies from elsewhere in the region, country, or world can be useful, but infrastructure managers and investors will likely be more impressed by proven results under local conditions. A municipal pilot project allows the local wetland champion who conceived it to document metrics like reduced peak flows, less frequent road flooding and washouts, lower loads of sediment and other pollutants, and decreased mowing, dredging, and pipe repair costs. With this local reference data available, larger, more expensive project ideas become easier to sell to utilities, public works departments, budget officials, and external funders and investors.

In many cases, decision-makers and investors are not outright opposed to using wetlands as infrastructure, but they are uncertain: about costs, about reliability, about maintenance commitments. A well-designed municipal pilot project helps by answering those questions with real evidence.

We're interested in **Proving that Our City is Ready for Green Investments:**
Check out **Washinton, DC's Green Infrastructure Pilot Project**

Since the nineteenth century, Washington, DC has used an aging combined sewer system (where stormwater runoff and sewage run through the same pipes) that was prone to overflow, resulting in billions of gallons of polluted water into Rock Creek, the Potomac River, and the Chesapeake Bay annually by the 2000s. In 2005, DC Water (the municipal utility in charge of the system) reached a settlement with EPA, committing the city to addressing the overflow problem.[45] An early plan to spend $2 billion dollars on traditional "hard" infrastructure improvements was reconsidered when DC Water decided to explore whether less-expensive green infrastructure (GI) components could handle some of the stormwater volume, reducing the total amount of new underground tunnels that would need to be installed. The lower price of this approach was appealing, but "DC Water was discouraged by the greater risk that [GI] seemed to have compared to gray infrastructure" and felt that "spending public funds without the ability to guarantee outcomes" was too risky.[46]

For a solution, DC turned to Quantified Ventures (QV), a capital investment firm focused on a "pay-for-success" model of financing that allows private investors to carry some of the risk instead of the city. In 2016, QV helped DC issue a **special municipal bond called an Environmental Impact Bond (EIB) for a $25-million-dollar pilot project made up of 77 green infrastructure sites around the city**. With an EIB, private investors loan funds to a city for the up-front costs of a project, and then the city repays the investors (with interest) over time if the project meets its intended outcomes—in this case, reducing the volume of overflow by a certain amount and giving the city the confidence needed to pursue a long-term plan involving scaled-up green infrastructure spending.[47] This bond's terms were structured so that if the GI project did *not* get the planned results, the investors would forfeit a portion of the repayment money (a "clawback" for the city), so the project's failure to deliver as expected wouldn't hit the city's bottom line as hard. And if the project *exceeded* the planned outcomes, then the city's future GI projects would cost less than expected (due to the system's overperformance), and the city would use some of those savings to send the investors a bonus.[48] **This pilot project allowed the city to answer the question, "Can green infrastructure perform well enough to justify spending less on expanding our hard infrastructure's capacity?" The answer was yes,** and since then DC Water has consistently taken a "hybrid" green and grey approach to its water infrastructure spending.

Making the Most of Acquired Land

One obvious way for local governments and community groups to conserve and protect wetlands is to acquire title to the land. In this way, the wetlands can be protected from development and degradation and can be managed and maintained appropriately to ensure their functioning. The most straightforward way to acquire property interests in wetlands is to purchase the property outright ("fee simple" acquisition), and this approach provides the buyer with the most complete control over the land's future use. Yet fee simple purchase is not always available or affordable, limiting the practicality and feasibility of acquisition as a wetland protection strategy. Moreover, when a local government or tax-exempt land trust acquires a property outright, that land is removed from the local tax base, which many local governments will hope to avoid. For these reasons, **it will often be more practical and/or desirable to acquire a "partial interest" in the property instead, which keeps the land in private ownership but gives the recipient a say over how the land is used and managed.** Among the property instruments that allow transfer of partial interests, **conservation easements** are usually the best fit for wetland protection by local governments.

Local wetland protection projects involving acquisition are often undertaken through partnerships between landowners, land trusts, state agencies, and communities, and one or more of these stakeholders may have access to or existing knowledge of **wetland prioritization systems**. As a wetland protection tool, land acquisition is at its most powerful—and cost-effective—when it occurs as part of a larger local or regional strategy that identifies and prioritizes the most environmentally sensitive wetlands and related natural resources.

Conservation Easements

Conservation easements are a common and comparatively affordable tool to protect sensitive lands like wetlands. A conservation easement is a special real estate transaction between a landowner and an eligible "conservation organization," which is typically a not-for-profit land trust or a government agency, that conveys a partial property interest in a piece of land. Conservation easements, which are carried out using deeds (and the other formalities associated with real estate transactions), generally are **used to place restrictions on development and prohibit certain land uses that are "incompatible" with conservation values**.[49]

Under a conservation easement, **the landowner retains title to the property** and maintains the right to carry on any uses of the property that are not restricted by the easement. The **conservation organization that holds the easement has the legal power to enforce the conditions of the easement** against any incompatible uses. Most conservation easements are permanent (known as "perpetual"), though some are written to last a specific number of years (often 25 or 30). During the term of the easement, it does not matter if the original owner sells the land outright to someone else – the easement is still attached to the land.

The use of perpetual conservation easements (CEs) is enabled by state property law. Arkansas enacted its CE statute in 1983 based on a model law called the Uniform Conservation Easement Act. Under the Arkansas law, the purpose of a CE must be **protecting natural, scenic, or open-space values of real property; assuring its availability for agricultural, forest, recreational, or open space use; protecting natural resources; maintaining or enhancing air or water quality; or preserving the historical, architectural, archaeological, or cultural aspects of the property.** (Ark. Code § 15-20-402.) In Arkansas a CE is permanent unless the instrument (contract) that creates it specifies a shorter term. (Ark. Code § 15-20-406.) The easement holder is entitled to enter the land ("reasonably") to verify compliance with the easement's terms, and an enforcement action seeking to enjoin (i.e., stop) incompatible use can be brought by the easement holder or a person having a third-party right of enforcement. (Ark. Code § 15-20-409.)

Prioritizing Wetlands to Maximize Returns on Local Investment

Given limitations on available land (and willing landowners), funding, and time/resources, acquisition programs must prioritize sites to be targeted for acquisition. Not all wetlands provide equal ecological or community value, or are of equal condition, prioritization can help ensure strategic, defensible, and cost-effective conservation decisions.

How do we design or choose a prioritization system?

An important early step in choosing a prioritization system is to **articulate the community's wetland protection objectives.** Wetlands can be prioritized for acquisition (and restoration) to achieve multiple objectives, including: wildlife habitat, open space and recreation, water quality improvement, erosion control, and flood resilience. Some questions to consider when identifying objectives include*, Are we prioritizing risk reduction, ecological value, or cost efficiency? Do the priority wetlands need to meet any external regulatory or mitigation obligations? Do we have any legal constraints on the types and locations of land we can acquire? Does the objective we're stating align with the scoring criteria/requirement for our funding source?*

It is also important to **define the "study area" that encompasses the universe of wetlands** that your system will evaluate against your objective(s). For a local government or special district, the area of concern might be defined by the city limits, the county borders, or the watershed. It is also important to think about the scale of potential acquisitions and make sure the prioritization system provides results at the scale you need. For example, parcel-level acquisition programs should use a system that enables parcel-level scoring, while a regional initiative might use watershed-level prioritization.

Another important "ingredient" of a prioritization system are the core decision criteria. In other words, **what factors or characteristics of the wetland will result in a higher or lower score?** The criteria should be related to the chosen objective(s). For example, if the overarching objective is reducing risk to life and property from flooding, then the criteria might include wetland sites' flood storage capacity, ability to provide downstream infrastructure protection, and/or capacity for storm surge buffering. If the overarching objective is water quality improvement, the criteria might include nutrient reduction potential, sediment retention, and/or source water protection for drinking water supplies. Many prioritization systems also include criteria related to **feasibility and cost,** such as the cost of acquiring the property interest, the feasibility (and anticipated cost) of restoration, and the intensity of long-term management requirements.

In addition to the criteria, you will need to decide how the scores will be assigned. The formal name for the scoring method is the **assessment methodology**. The assessment methodology defines not only which criteria (also called indicators or variables) are measured, but how they are measured. An assessment can use existing data if it is available; if the data is incomplete or insufficient, new inputs can be developed using on-the-ground "field work," remote sensing (e.g., drones), and/or GIS modeling. For an initial prioritization system for local land acquisitions, a key aspect of the methodology will be its ability to **establish a credible *baseline*** for the wetlands' extent, condition, and function; ideally, the methodology will allow the user to perform monitoring in the future to detect changes and characterize trends over time.

Common Types of Assessment Methodologies

Hydrogeomorphic Method (HGM) (Landscape Method)

HGM assesses wetland functions based on landscape position and hydrology.

Key Focus: Ecosystem function

Common Uses: Functional assessments, restoration planning, mitigation planning.

Resources: ELI's Handbook for Prioritizing Wetland and Stream Restoration and Protection Using Landscape Analysis Tools

Rapid Assessment Method (RAM)

Rapid assessment is used to evaluate wetlands relatively quickly in a standardized way.

Key Focus: Comparative value of different sites

Common Uses:
Parcel-level assessment within a large study area
Comprehensive plans
Regulatory programs

Resources: Wisconsin DNR's Wetland Rapid Assessment Methodology User Guidance; NM Environment Dep't Rapid Assessment Methods

Benefit-Cost Analysis (BCA)

BCA is used to evaluate the net economic or hazard reduction value of wetlands.

Key Focus: Efficiency

Common Uses:
Flood risk reduction plans (including for FEMA-funded acquisitions)
Infrastructure plans

Resources: FEMA's BCA Toolkit

Multi-Criteria Decision Analysis (MCDA)

MCDA is used to integrate and balance multiple environmental and social objectives.

Key Focus: Balanced decisions

Common uses:
Conservation planning
Watershed-level prioritization
Regional acquisition

Resources: Army Corps' Multi-Criteria Decisional Analysis: Methodology & Case Studies

Leveraging Acquired Properties for Multiple Benefits

Choosing the right wetlands to protect is an important part of maximizing your wetlands' value, but it is not the only decision that will affect the ultimate payoff of investing in wetland assets.

Compatible Land Uses

Compatible land uses for land acquired by conservation easement tend to include open space, recreation, and habitat management. Development is usually prohibited if it changes the area's natural appearance, impede the property's ability to convey and store floodwater, and/or restricts access. However, depending on how strictly "conservation purposes" are defined for a specific acquisition program or conservation easement contract, there are likely to be many options beyond letting the land sit untouched as a vacant lot. These uses include actively managed wetland and/or buffer habitat, parks, trails, community gardens, greenways, outdoor sports and recreation, camping, pollinator habitat, and educational centers/outdoor classrooms.[50] **Communities can find ways to maximize community benefits from acquired properties by combining any of these uses.** For example, in Kinston, North Carolina, the community turned frequently-flooded land purchased with federal funds into the multi-use Neuseway Nature Center: a nature park that features nature trails, educational exhibits and programs, community ponds for fishing and kayaking, a playground, a campground, and a climbing wall.[51] In nearby Rocky Mount, North Carolina, the Parks and Recreation Department has turned buyout parcels into parks that feature dog-friendly areas and athletic fields. Other examples from around the country can be found among ELI's collection of **Floodplain Buyout Case Studies** and our **Action Guide for Local Governments on How to Maximize Community Benefits, Habitat Connectivity, and Resilience**.

Management and Maintenance of Acquired Land: Opportunities and Responsibilities

After a property has been acquired for conservation, the community (or conservation group holding the easement) becomes responsible for maintaining the property consistent with open space uses. (This responsibility includes periodic monitoring to make sure there are no violations of the defined legal restrictions on land use.) **Responsibility for long-term maintenance and management requires planning and consideration of available funding sources and capacity to carry out these tasks**. Some communities have found various creative solutions for funding these activities that can serve as models for others; other communities have chosen to transfer responsibility for long-term management by transferring title or leasing the property to another government entity or conservation organization.

Depending on the size and location of acquired land and the management budget, **some management opportunities will make more sense than others**. For example, with a single property or "patchwork" of individual properties dispersed across the landscape, it is likely to be challenging if not impossible to use the land for restoring broad habitat connectivity; moreover, in cities, single vacant lots may be mowed by the city's landscaping staff or neighbors, or left fallow for existing (often non-native) vegetation to flourish. These realities can make it difficult to achieve the restoration ideal of resembling the land's historic ecology. However, there are still plenty of opportunities for projects that improve wildlife habitat, provide ecosystem services, and offer community benefits even at this smaller scale. Depending on the situation, these might include community gardens, pollinator habitats, small-scale green infrastructure (constructed bioswales), and "pocket parks" that add both green space and recreation opportunities.

On the other hand, where acquired properties are larger, contiguous, and/or consistent with an existing habitat conservation program, it may make sense to focus on habitat restoration opportunities. These opportunities are not one-size fits all and can fall anywhere on the spectrum between no intervention (i.e., passively allowing natural processes and natural disturbances to unfold), habitat "enhancement" (i.e., small-scale actions that make modest changes to the land to restore limited ecosystem services), habitat "rehabilitation" (i.e., manipulation of the physical or biological features of the site with the goal of returning ecosystem services), and habitat "reestablishment" (i.e., actively rebuilding habitat to closely resemble its condition prior to human disturbance). Section II of ELI's **Action Guide** features many real-world examples of approaches across this spectrum.

Integrating Wetland Protection into Routine Maintenance Operations

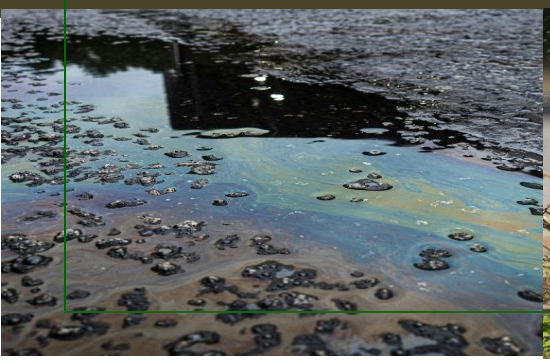
In addition to thinking carefully about management of newly-acquired properties, local governments should not forget that there are likely to be **opportunities to integrate wetland-friendly practices into their routine city operations.** The healthier wetlands are, the harder they can work for us. Local governments are usually responsible for maintaining drainage systems, road crossings and medians, parks, and utility corridors, and these maintenance functions often can be carried out in a way that **improves wetland functions without having to launch an entirely new program**. Embedding wetlands into existing maintenance (and capital improvement cycles) can be a cost-effective way to leverage more value from existing natural assets, and it also signals to the community (and private landowners) that wetland stewardship is normal and valuable.

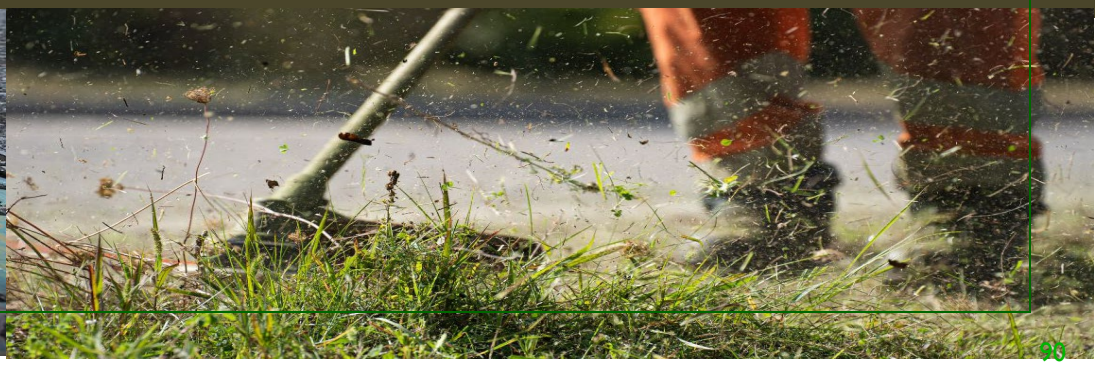
Wetland-friendly maintenance is made up of the **small, recurring operational choices that protect hydrology, vegetation, and soil conditions** to the greatest extent feasible for the situation. Some wetland-friendly maintenance practices include:

Vegetation Management: Mowing less often and/or to a higher cut height; maintaining native vegetation buffers around wetlands, streams, and low-lying areas; avoiding broadly applying herbicides in favor of more selective control of invasive plants; scheduling disruptive maintenance activities around native species' nesting and breeding seasons.

Soil Protection: Minimizing soil compaction by using low-ground-pressure equipment on wetland soils (e.g., lighter mowers); restricting vehicle access during wet conditions; avoiding unnecessary grading; quickly stabilizing disturbed soil.

Pollution Prevention: Applying smaller amounts of fertilizer, pesticides, and/or herbicides near wetlands; reducing application of road salt near sensitive wetlands; in public works yards, storing chemicals and fuels away from drainage areas; street-sweeping before rain events when the forecast makes it possible.





Finding the Funds

While natural assets have proven economic and environmental benefits, finding the money to plan and carry out the projects that identify, restore, and harness them can be challenging for local governments and their community partners. Communities across Arkansas vary widely in population, wealth, and tax base, all of which impact the level of resources available for wetland protection plans and projects. As with so much else in local wetland protection, there is no one-size-fits-all solution to the funding challenge: every state, community, and project has access to a unique combination of funding opportunities, and often, projects will leverage (or "stack") multiple funding sources to make the numbers work. Particularly for projects with multiple benefits, there may be some elements that are eligible for the primary funding source, and some that require supplemental funding.

Navigating Local "Match" Requirements for Federal Grants

In practice, many local wetland and water-related projects rely in part on federal grants. There are numerous federal agencies that issue grants to help finance wetland conservation and natural infrastructure projects, including but not limited to the ones reviewed in Part 2 of the Playbook. However, federal funding programs often do not cover the full cost of a project and require the non-federal sponsor (the community receiving the grant) to shoulder some of the financial burden. This practice is known as "cost sharing," and while it ensures that recipients of federal dollars have their own financial stake in a project's success, it can create an insurmountable obstacle that deters communities—particularly small, rural, and/or low-capacity communities—from applying for the federal grants that can make critical plans and projects possible. The practice of cost sharing has become routine under federal funding programs, and most of the federal grant programs for water quality, working land conservation, resilience, habitat, and/or natural infrastructure projects do include a cost share requirement.

Consider: Cost-Share Requirements Place Greater Strain on Rural and Low-Capacity Communities

Many rural and low-capacity communities (as they are frequently referred to in the context of federal grants) are resource-constrained and experience a heavier burden in meeting cost share requirements. Metropolitan areas with larger populations tend to have more resources for raising cost share funds; for example, cities might use cash reserves or be able to distribute increased utility fees across the large pool of rate payers.[52] Rural and low-capacity communities, on the other hand, have fewer options for raising revenue for cost share payments (as well as for expenditures that must be paid for in advance before they are reimbursed by the federal government), and "frequently resort to debt-financing tools such as loans and municipal bonds that carry additional costs."[53] Moreover, natural infrastructure projects can be more expensive per capita in rural areas, where larger-scale projects may be needed to protect less-densely populated areas.[54] All in all, cost sharing, particularly in the form of a percentage requirement, can be more of a burdens for communities where there are fewer people and/or less community wealth to help fund the project. For this reason, many federal grant programs have started to provide additional subsidies or waivers to disadvantaged communities. For example, FEMA's mitigation grants have a lower local match requirement (10%) for small or economically disadvantaged communities, and some NRCS conservation programs have payment rate structures or other elements that favor historically underserved producers. However, these special provisions might only work if the applicant knows to request them, so before applying for a grant, the local applicant should make sure to check whether they meet any criteria for reduced cost-sharing based on their population, geographic location, or average income.

Identifying State Grant Programs to Help with Local Match

State funding programs can be utilized to help local governments meet cost share requirements. The money for these programs can either come from state sources or from (permissible) federal sources. In Arkansas, there are (or have been) various state grant programs that might be used to fund the local share of a federally-funded project to conserve, restore, or construct natural assets while providing other community benefits. Three such programs are the FUN Park Grant Program, the Community Assistance Grant Program, and the FEMA Non-Federal Match Program, which are highlighted below. Many other historic state funding opportunities are described in the **Arkansas Economic Development Commission's Rural Services Funding Resource Guide** (2016), and while some of these programs may look different (or no longer exist) today, they give a sense of the range of programs that might be available—and about which a local government could talk with the AEDC.

The **FUN Park Grant program** is currently available to small cities and towns (population below 7,500) and to unincorporated communities that are sponsored by their respective county. The grants, which are capped at $100,000 as of 2026[55], can be used to develop outdoor recreation facilities. In the words of the **Arkansas Economic Development Commission,** a "FUN Park Grant will likely challenge the grantee's ability to stretch funds" as needed to make a multi-benefit project work. The application period for the upcoming grant cycle is open from May 1 to August 28.

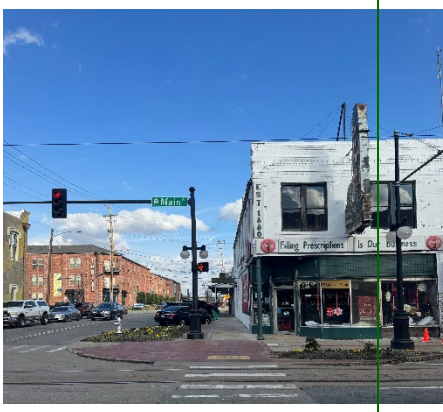
In 2025, Arkansas created the **Community Assistance Grant Program** "to fill funding gaps for projects that reduce poverty, promote self-sufficiency, and revitalize communities."[56] The program offered grants of up to $1.5 million per project per year to cities, counties, and non-profit organizations for eligible community and economic development projects certain non-profit organization projects. Among other things, these flexible grants could be used for city or county projects involving renovations, new construction, new equipment, or additions to parks or ballfields; landscaping and/or beautification projects; creation or renovation of park and picnic areas, jogging and walking trails, etc. In some cases, grants for purchasing land were eligible. The grants could also be awarded to non-profits for renovating, improving, upgrading, retrofitting, rehabilitating municipal property; routine repair or maintenance; and purchase of land, buildings, and equipment. According to the **governor's office,** the application period occurred during summer 2025, and grants were awarded in fall of that year. It is unknown whether Arkansas will offer this same program in the future, but either way, it demonstrates the state's understanding of the need to help local governments close funding gaps for community development projects. That understanding is also evident in the state's proposed FEMA Non-Federal Match Program, which is spotlighted below.

Consider: A New Program Could Help Fund Wetland Restoration in Benton, Cross, and Pulaksi Counties

Arkansas has opted to use some of its 2025 federal Community Development Block Grant Disaster Recovery Funds (awarded after a series of disasters in 2023-24) to establish a **FEMA Non-Federal Match Program**.[57] This program is specifically aimed "to ease the financial strain on communities already burdened by emergency response costs and reduced revenues" and enable them to meet local match requirements for FEMA's Hazard Mitigation Grant Program and Public Assistance Program.[58] The state program will be administered jointly by the Arkansas Development Finance Authority and the Arkansas Division of Emergency Management. According to draft **program policies and procedures** (released in Jan. 2026 for **public review and comment)**, eligible activities for these state matching grants will include **acquisition of real property for various reasons, specifically including "rehabilitation or conservation activities"** and/or for "the **beautification of urban land, the conservation of open spaces, natural resources, and scenic areas, the provision of recreational opportunities, or the guidance of urban development**" (p. 6-7).

Raising Local Funds

For Arkansas cities and towns, primary annual revenue sources include city and county local sales taxes (with cities receiving a portion of countywide sales taxes based on population); property taxes; a portion of the county road taxes collected on city property; utility franchise taxes (paid by utilities to use the public right of way); and allocations from the State Municipal Aid Fund based on population (known as "turnback" funds). When new planning initiatives and/or infrastructure project implementation require funds beyond the typical annual budget, there are a few specific ways that cities and towns can raise them.



Cities are not allowed to take on debt casually. In general, deficit spending by municipalities is prohibited by Arkansas law, but there are a handful of specific exceptions. Two of these are capital improvement bonds and revenue bonds.

Capital Improvement Bonds

Amendment 62 of the Arkansas Constitution authorizes municipalities to **issue bonds for capital improvements** of a public nature. The term "capital improvements of a public nature" is defined broadly to include the purchase, lease, construction, reconstruction, restoration, improvement, alteration or repair of city halls, courthouses, public offices, jails, police stations, stadiums and arenas, water pollution control facilities, storm sewers, and more. (Ark. Code § 14-164-303(2).) Amendment 62 bonds are backed by taxes: cities and towns are authorized to levy a special property tax for bond repayment (legally called "retirement of the bond") or may use a specified portion of an existing local sales and use tax. The city or town council must pass an ordinance authorizing the principal amount of the municipal bond(s) to be issued, the purpose(s) for which the bonds are to be issued, and the maximum rate of any ad valorem tax that will be imposed to repay the bond. (Ark. Code §§ 14-164-308, 327(a).) Before any bond can be issued, the question must be put to voters (in a general or special election), and a majority of voters must agree to the bond and any related tax increases. (Ark. Const. Amend. 62, § 1(a).) Also, there is a cap on the principal amount that a city or town can have in unpaid bonds.

In Arkansas, it is common for municipalities of all sizes to use voter-approved municipal bonds for infrastructure improvements. In early 2026, for example, the City of Fayetteville voted to issue a water infrastructure bond for over $150 million to update water and sewer pipes, pumps, storage, and treatment systems; the bond will be paid for through continuation of an existing sales tax.[59] The much smaller City of Sheridan (population ~5,000) successfully asked voters to approve a capital improvement bond of almost $6 million in November 2025.[60]

Revenue Bonds

Amendment 65 of the Arkansas Constitutions authorizes another exception to the deficit spending prohibition: cities and towns may issue "revenue bonds," which may be issued for the purpose of financing all or a portion of the costs of capital improvements of a public nature, facilities for the development of industry or agriculture, and for such "other purposes" as may be authorized by the Arkansas General Assembly. Revenue bonds are different from capital improvement bonds because revenue bonds are backed by a specific source of revenue that is to be derived from the same project or improvement being financed. [61] For example, a city with a municipal wastewater utility might issue a revenue bond to upgrade the system's infrastructure based on customers' rate payments or fees. (Revenue bonds can also be based on utility franchise tax revenues, which are paid by investor-owned utilities for the right to locate their infrastructure in the public right-of-way.)

Revenue bonds can be and have been used to acquire lands to be harnessed as natural assets: in 2020, Central Arkansas Water—the largest municipal water utility in the state, which serves the Little Rock region—issued a $30-million-dollar revenue bond that was used in part to acquire forested lands for the purpose of protecting drinking water supply. According to an **NGO** that helps track green financing mechanisms, Central Arkansas Water partnered with Encourage Capital to prepare the bond, which was used to protect 45% of the Lake Maumelle watershed, "which provides critical filtration services for clean drinking water." [62]

Broadly speaking, municipalities can issue revenue bonds by a proclamation, order, ordinance, or resolution that clearly states the principal amount of the purpose or purposes for which the bonds are to be issued. (Note that Amendment 65 gives the state's General Assembly the option to require cities and towns to hold an election on issuance of a revenue bond, similar to capital improvement bonds, but the General Assembly has not yet done so.) However, there is a **specific state law authorizing municipalities that own or operate a waterworks system to issue revenue bonds to pay for improvements and betterments to the system**; these revenue bonds must be issued by ordinance according to special procedures in that statute that ensure minimum water rates charged by the utility will cover payment of interest on the bond and set aside a fund for paying off the principal when it comes due. (Ark. Code § 14-234-103.)

Endnotes

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[4] National Association of Wetland Managers, Arkansas State Wetland Program Summary (2015), available at: https://www.nawm.org/pdf_lib/state_summaries/arkansas_state_wetland_program_summary_083115.pdf.
[5] Id.
[6] State Summary Highlights, supra note 1.
[7] National Wildlife Federation, Weakening the Clean Water Act: What it Means for Arkansas (n.d.), available at: https://www.nwf.org/~/media/PDFs/Water/State-Fact-Sheets/Arkansas_WeakeningTheCleanWaterAct.ashx (last accessed Dec. 22, 2025)
[8] See, e.g., ELI and UNC Institute of the Environment, Floodplain Buyouts: An Action Guide for Local Governments on How to Maximize Community Benefits, Habitat Connectivity, and Resilience (Apr. 2017), available at: https://www.eli.org/sites/default/files/eli-pubs/actionguide-web.pdf.
[9] Wisconsin Wetlands Association, Wetlands Working for Clean Water (Nov. 29, 2018), https://www.wisconsinwetlands.org/updates/wetlands-workingfor-clean-water/.
[10] William J. Mitsch & James G. Gosselink, Wetlands 529 (2d ed. 2016).
[11] Id.
[12] W. Aaron Jenkins et al., Valuing ecosystem services from wetlands restoration in the Mississippi Alluvial Valley, 69 Ecol. Econ. 1051 (Mar. 15, 2010) (available at: https://www.sciencedirect.com/science/article/abs/pii/S0921800909004716). This and other studies have assessed several economic and social values of wetland restoration in Arkansas through the lens of the federal Wetlands Reserve Program. See generally U.S. Fish & Wildlife Serv., Wetlands Reserve Program (Service Manual) (2003), https://www.fws.gov/policy-library/504fw3 (explaining that the Wetlands Reserve Program "is a voluntary program under which [the] USDA may purchase conservation easements from or enter into restoration cost-share agreements with eligible landowners who voluntarily cooperate in the restoration, enhancement, and protection of wetlands and associated lands").
[13] Id. The study noted that "potential market value is substantially greater than landowner opportunity costs."
[14] Matthew Richardson et al., Valuation of Wetland Restoration: Evidence from the Housing Market in Arkansas, 81 Envtl. & Res. Econ. 649 (Jan. 15, 2022), available at: https://link.springer.com/article/10.1007/s10640-021-00643-0
[15] 30 U.S.C. § 1313(d). States are also required to submit a report to EPA that describes the overall health of all waters every two years (305(b) list), which states can submit jointly with the 303(d) list in what is known as an Integrated Report.
[16] Both the Corps and the EPA have a role in administering the Section 404 program. Among other responsibilities, the Corps issues permits and makes official determinations of whether a WOTUS is present in the footprint of the proposed activity. The EPA, among other things, issues policies and guidance and reviews individual permit applications. Both the EPA and Corps share enforcement authority for Section 404 permits and provisions.
[17] U.S. Environmental Protection Agency, CWA Section 404 and Swampbuster: Wetlands on Agricultural Lands, https://www.epa.gov/cwa-404/cwasection-404-and-swampbuster-wetlands-agricultural-lands (last visited Dec. 4, 2025). There are a number of exceptions through which producers will not forfeit USDA benefits despite producing agricultural commodities on converted wetlands (e.g., prior converted cropland, minimal effects), which are omitted here for length. See e.g., 16 U.S.C. § 3822(b)(1)(a) (exempting "prior converted cropland"); 16 U.S.C. § 3822(f)(1) (exempting "minimal effects" from converted wetlands).
[18] Brigit Rollins, Stuck in the Swamp? A Look at Prior-Converted Croplands under Swampbuster, National Agricultural Law Center, https://nationalaglawcenter.org/stuck-in-the-swamp-a-look-at-prior-converted-croplands-under-swampbuster/ (last visited Dec. 4, 2025); 16 U.S.C. § 3801(27).
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[27] Arkansas Natural Heritage Commission, Home, https://www.arkansasheritage.com/arkansas-natural-heritage/anhc-home (last visited Feb. 27, 2026).
[28] For a complete list of the enabling legislation in each state, please visit the National Association of Conservation Districts webpage at https://www.nacdnet.org/about-nacd/about-districts/ (last visited Feb. 25, 2026).

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[30] Mary Hennigan, Arkansas conservation districts focus of two expected bills, Arkansas Advocate (Dec. 5, 2024), https://arkansasadvocate.com/2024/12/05/arkansas-conservation-districts-focus-of-two-expected-bills/.
[31] Elly T. Gay et. al, Riparian buffers increase future baseflow and reduce peakflows in a developing watershed, SCIENCE OF THE TOTAL ENVIRONMENT, Vol. 862 (Mar. 1, 2023) (finding "[b]uffer treatments dampen high flows in areas with the highest levels of development"), available at: https://www.sciencedirect.com/science/article/abs/pii/S0048969722079372; Seth J. Wenger, A Review of the Scientific Literature on Riparian Buffer Width, Extent and Vegetation (Jan. 1999), available at: https://www.researchgate.net.
[32] See, e.g., Delony v. Rucker, 227 Ark. 869, 302 S.W.2d 287 (1957).
[33] The criteria in the law also include "compatab[ility] with the Arkansas Wetlands Conservation Plan;" however, the state no longer maintains that plan.
[34] Randy Zellers, New program adds 12,000 acres of Arkansas wetlands for waterfowl (Sept. 25, 2024), https://www.agfc.com/news/new-program-adds12000-acres-of-arkansas-wetlands-for-waterfowl/.
[35] USDA, As USDA Sees Record Interest in Conservation and Clean Energy Programs, Swift Implementation of Inflation Reduction Act Funding Continues (Sept. 19, 2023), https://www.usda.gov/about-usda/news/press-releases/2023/09/19/usda-sees-record-interest-conservation-and-clean-energy-programs-swift-implementation-inflation
[36] Michael Happ, Institute for Agriculture and Trade Policy, Let's Keep the Door Open (Jun. 3, 2025), https://www.iatp.org/keep-the-door-open; phone interview with Mike Sullivan, former State Conservationist for Arkansas (April 8, 2026).
[37] NRCS, USDA Natural Resources Conservation Service Accepting 2026 Applications for Four Arkansas RCPP Projects (Dec. 9, 2025), https://www.nrcs.usda.gov/state-offices/arkansas/news/usda-natural-resources-conservation-service-accepting-2026-applications
[38] NRCS, Regional Conservation Partnership Program, https://www.nrcs.usda.gov/programs-initiatives/regional-conservation-partnership-program (last visited April 29, 2026).
[39] Environmental Working Group, USDA Conservation Programs in Arkansas, https://conservation.ewg.org/region.php?fips=05000&statename=Arkansas (last accessed Apr. 28, 2026); phone interview with Mike Sullivan, former State Conservationist for Arkansas (April 8, 2026).
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[43] Damian Homes, Concept revealed for Tom Lee Park, Memphis, World Landscape Architecture (Jun. 1, 2020), https://worldlandscapearchitect.com/concept-revealed-for-tom-lee-park-memphis/?v=0b3b97fa6688#.Xxd1rRnYo3E.
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[45] U.S. EPA, District of Columbia Water and Sewer Authority, District of Columbia Clean Water Settlement (May 20, 2015), https://www.epa.gov/enforcement/district-columbia-water-and-sewer-authority-district-columbia-clean-water-settlement.
[46] Quantified Ventures, Case Study: DC Water (n.d.), available at: https://static1.squarespace.com/static/5d5b210885b4ce0001663c25/t/5e136b61f2afef61e95e7472/1578331001269/DC+Water+Case+Study_Quantified+Ventures.
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[49] LAURIE A. RISTINO AND JESSICA E. JAY, A CHANGING LANDSCAPE: THE CONSERVATION EASEMENT READER at 5 (2016).
[50] List derived from FEMA, ACQUISITION HANDBOOK FOR LOCAL COMMUNITIES at p. IV-3 (1998).
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[52] Kris Smith, Match requirements prevent rural and low-capacity communities from accessing climate resilience funding, Headwater Economics (Jan. 2023), https://headwaterseconomics.org/equity/match-requirements/ ("For instance, many larger communities have stormwater fees that can be leveraged to pay local match requirements associated with stormwater improvement grants. In smaller communities that may not have a stormwater fee, finding a local match for a stormwater project presents a far more significant challenge.")
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