



Got Water? Keep It Clean!

Environmental protection begins in your own backyard

Storm Drain Art

This storm drain art by Daniella Napolitano was a 2015 winner in Little Rock's Drain Smart program.



Seal Krete, Sherwin Williams, and Walmart donated supplies for the public art program sponsored by Audubon Arkansas, ADEQ, the city of Little Rock, Little Rock Parks and Recreation, Friends of Fourche Creek, Keep Little Rock Beautiful, Studio Main, The Bernice Garden, MacPark Group, the Arkansas Arts Center, Sculpture at the River Market, Central Arkansas Water, and Arkansas Section of the American Society of Civil Engineers

Local artists submitted plans for drain art to call attention to the need to keep trash and pollutants from entering the Arkansas River and Fourche Creek. The public voted to pick three favorites.



According to the U.S. Environmental Protection Agency, the top three pollutants causing problems in waterbodies across the country are **sediment (scientists' term for soil in water), bacteria, and nutrients.**

Sediment

Particles of soil suspended in streams can clog the gills of fish and kill them. Sediment also blocks light from the sun so that beneficial water plants die. When sediment settles on the bottom, it can kill fish eggs and small aquatic life.

How does extra sediment get in the water?

Construction, mining, logging, and other activities that remove trees and plants leave the earth exposed. Harvesting



crops can leave large fields exposed. Rain then washes dirt into nearby streams or lakes. Dredging a creek to "clean it out" stirs up sediment from the creek bed while destroying habitat for fish and other aquatic life. Sometimes fast-moving streams remove plants from stream banks and wash soil into the water.

How is sediment controlled?

Construction workers use silt fences and hay bales to keep soil from washing from sites. Farmers plant grasses to prevent erosion in fields after crops are harvested. Volunteers plant native trees along bare stream banks.

Naturally occurring vegetation is left in place.

Bacteria

Not all bacteria is bad. Our bodies use special bacteria to digest our food. But some bacteria and viruses that can make us sick can get into our waterbodies.

How do bacteria get in the water?

Heavy rain can cause sewers to overflow and dump untreated sewage into city storm drains that empty into streams and rivers. Animal waste from large farms and even pet waste can wash into our waterbodies. Sometimes in the summer, the Health Department will close swimming areas that have temporary high bacteria counts.

How are bacteria being controlled?

Cities and towns are improving sewage

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Arkansas Stream Team Program

The Arkansas Game and Fish Commission sponsors this program as an opportunity for Arkansans of all ages to learn about water quality and to help restore and preserve the quality of our streams. Stream Teams—many made up of students—help protect rivers or creeks in their areas by working on projects such as litter control, streambank stabilization, streamside tree plantings, fish and wildlife habitat improvement, water-quality monitoring, and erosion prevention.

Seventh and eighth graders at St. John's Catholic School in Hot Springs learned about water quality by collecting macro-invertebrates in local creeks.

The Washington Junior High Stream Team in Bentonville received a mini grant from their Stream Team coordinator to buy a new test kit for sampling and water quality monitoring.

The Searcy High School Stream Team picked up litter in and near Cypress Bayou in White County; their collection included tractor tires, appliances, trash bags, TVs, and a vending machine.

Learn more at <http://www.aqfc.com/fishing/Pages/FishingProgramsAST.aspx>

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systems. Farmers are developing better ways to manage livestock manure.



Some towns have laws that require pet owners to pick up after their dogs, and conscientious people do even where it's not required by law.

Nutrients

Nutrients (phosphorus and nitrogen, for example) help plants grow. But there can be too much of a good thing. An overabundance of nutrients in water can cause an overgrowth (bloom) of algae. Some types of algae are toxic. When a large algae bloom dies, it uses up oxygen in the water as it decomposes. This causes fish and other aquatic life to die.

How do nutrients get in water?

When people put too much fertilizer on crops and lawns, rain can wash them into our waterbodies. Animal waste and leaking sewage

treatment systems are also sources of nutrients.

How are nutrients controlled?

People are learning the importance of using the right amounts of fertilizer according to package directions and NOT applying fertilizer when rain is expected. Livestock farmers are managing manure better, and sewage treatment systems are being closely monitored.

What can I do to protect our water quality?

Keep trash, leaves, pet waste and other yard waste, as well as car fluids, paint, and household chemicals off pavements and away from storm drains. Rain can wash pollutants from streets and curbs into storm drains, which empty directly into the nearest stream.



Follow package directions when applying fertilizer.

If you see activities that disturb streams (someone dumping grass clippings or leaves in a neighborhood creek or storm drain, or someone driving a four-wheeler down a shallow creek), report it to the Inspection Branch of ADEQ's Water Division at 501-682-0654, or go to https://www.adeq.state.ar.us/complaints/forms/water_complaint.aspx to file a complaint; at this site you can also download a mobile app for reporting incidents to ADEQ.

Information for this fact sheet came from a U.S. Environmental Protection Agency webpage: <http://water.epa.gov/learn/>

