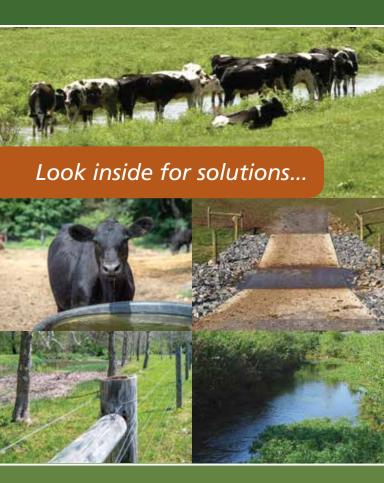
Cows in the Stream Making a Mess of Things?





- Free Technical Assistance
- Cost-Share Grants



Let Our Free Technical Help and Cost-Share Be a Game Changer

The conservation planners and technicians in your local soil conservation district have your farm's best interests at heart. All of our programs are voluntary and the technical services that we provide are free. Our experts will work with you to develop stream protection practices that meet Maryland's setback requirements, benefit your operation's natural resources, and can improve the health of your animals.

If you own pastureland that borders a stream, check out these herdhealthy alternatives to water-

ing your livestock in the stream. As public interest in healthy farming practices increases and the multi-state Chesapeake Bay cleanup moves forward, more and more livestock operations are taking a closer look at how they water their animals. Excluding animals from streams not only reduces pollution, it can improve the health of your herd and minimize injuries.

Maryland's nutrient management regulations require farmers to establish a 10-ft buffer area next to waterways to protect water quality. Farmers are directed to work with their local soil conservation district to identify ways to exclude livestock from streams that run through their properties. There are many ways this can be achieved that benefit both water quality and herd health.

State and federal cost-share programs and grants are available for most stream protection practices. In many instances grant funds can be combined to make the installation of these practices very affordable. Special programs, such as the Conservation Reserve Enhancement Program (CREP), provide steady, attractive annual rental income for farmers who plant qualifying buffers next to streams or creeks. Read on to learn more.

Install a Watering Trough

Every farmer knows that livestock need ready access to clean drinking water. A watering trough provides a constant and plentiful supply of fresh, clean water for animals away from streams. Most farmers report that livestock prefer watering troughs to streams and springs. Strategically placed watering troughs can improve how you manage your pastures.



- The stream is muddy, with poor footing for animals.
- High levels of nitrogen, phosphorus, and sediment create conditions that make it difficult for fish to survive.
- Livestock are at increased risk for developing environmental mastitis.
- Intestinal diseases—such as Johne's disease, Bovine Viral Diarrhea (BVD) and Cryptosporidium—can spread quickly when cattle urinate and defecate in the same water they are drinking.
- Animals that get their water from this stream could still be thirsty—water flow and clarity vary greatly during floods and droughts.

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- A watering trough provides an excellent alternative to cows in the stream.
- Farmers report that a well-placed watering trough can improve milk production, increase butterfat content in lactating cows, and stimulate growth in young animals.
- Troughs keep water cooler and encourage livestock to drink more in warm weather.
- The risk of animals contracting intestinal diseases and environmental mastitis is reduced.
- Watering troughs designed with concrete pads improve livestock footing and reduce mud.

The new watering troughs have a consistent supply of water, even during dry weather.

—Brian Sweeney, Frederick County

Get Started

Contact your soil conservation district to discuss watering troughs and supporting practices that meet your farm's needs. Options include concrete vs. frost-free troughs and gravity fed vs. pressure troughs. Our technical experts can help you identify the water source that is right for your operation and help you apply for cost-share grants.

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Install a Stream Crossing

A stream crossing provides a hard, stable surface to transport livestock and farm equipment used for pasture maintenance across a stream without damaging the streambed or banks.

BEFORE

- The streambank is eroding due to constant livestock traffic.
- · Cattle loafing in streams pollute the water.
- · Animals can become mired in mud.
- Farm equipment can become damaged or stuck.
- Standing water provides a breeding site for mosquitoes.





- Livestock and equipment can cross the stream safely.
- Herd health is improved when animals are kept out of the mud.
- Vegetation reemerges to stabilize streambanks and provide wildlife habitat.
- Animals are able to graze pastures that are hard to get to.
- Positive public perception—no cows in the stream!

The crossing keeps cattle from congregating in the stream and protects the streambank from wear and tear.

—Rick Holloway, Harford County

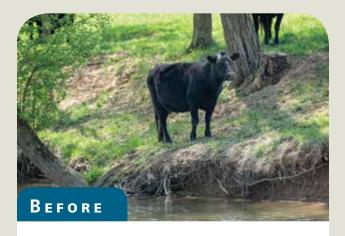
Get Started

Livestock crossings are typically installed as part of a larger pasture renovation project and may involve watering troughs, fencing, and stream protection measures. Cost-share is available from state and federal sources. Contact your soil conservation district on the back of this brochure for free technical help to set up a stream crossing on your farm.

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Install Livestock Fencing

Fencing can be used to exclude livestock from streams and create a rotational grazing system to improve pasture forage and herd health. Fencing prevents livestock from trampling streambanks, defecating directly in the water, and stirring up sediment in the streambed. Fencing may also be used to exclude livestock from areas that need to be protected from grazing or browsing and to encourage animals to use stream crossings.



- Cattle are allowed unlimited access to streams where they drop manure directly in the water.
- Cattle destroy vegetation and trample the streambank as they walk down to the stream.
- Eroded streambanks pose an injury risk to livestock.
- Sediment buildup can fill in the streambed and smother aquatic plants and animals.
- The farmer has little control over where livestock graze.
- Water quality along with wildlife and fish habitat are compromised.



- Water quality, fish and wildlife habitat improve once livestock are excluded from the stream.
- Vegetative regrowth provides streambank stability.
- Manure is distributed more evenly in pastures and is no longer deposited directly in the stream.
- Livestock can be moved from one area to another to maintain high quality forage.
- The risk of livestock coming in contact with waterborne diseases is reduced.

The streambank fencing looks good and has improved the appearance of the pasture.

—Kenny Green, Garrett County

Get Help

Electric fencing is a popular choice for many farmers. Contact your soil conservation district listed on the back of this brochure to discuss the full range of livestock exclusion fencing options and available cost-share funding.

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Plant a Stream Buffer

One of the best ways to protect streams is to plant trees, shrubs, or grasses next to the water to create a stream buffer. Buffers filter runoff coming off the land, protect against erosion, provide shade to keep the water cool, and create a home for turkeys, ducks, and other types of wildlife. Strategically planted buffers can be used to exclude livestock from streams.

BEFORE

- Sediment, nutrients, manure, and farm chemicals flow freely into the water from the land.
- Without a strong root system to hold the soil in place, streambank erosion escalates.
- Weeds and algae grow unchecked.
- Wildlife and game birds lack food, cover, and nesting habitat.
- Overall water quality for humans, wildlife, and fish suffers.





- Trees and shrubs cool the water in summer and support native fish species.
- Plant roots stabilize streambanks and reduce erosion.
- Vegetation filters nutrients that are present in runoff from adjacent farm fields and pastures.
- Organic material supplied by plants and trees provides food and habitat for wildlife.
- The buffer acts as a physical barrier to slow surface runoff.

The stream buffer we planted improved water quality. Trout can now survive in the water.

—Richard Soper, Carroll County

Get Started

There are many grant and cost-share programs for landowners who want to plant streamside buffers. Farmers can receive attractive rental payments through the Conservation Reserve Enhancement Program (CREP) to take streamside property out of production for 10-15 years and plant and maintain shrubs, trees, or grasses. Cost-share assistance is available to plant forest buffers next to streams. Learn more. Contact your soil conservation district listed on the back of this brochure.

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Free Help for You

Your soil conservation district has a team of technical experts that can help you design, plan and apply for cost-share grants to install stream protection practices on your farm. There is no charge for our services. Simply contact your soil conservation district office to arrange for someone to come to your farm.

Maryland's Soil Conservation Districts		
Allegany	301-777-1747, ext. 3	alleganyscd.com
Anne Arundel	410-571-6757	aascd.org
Baltimore Co.	410-527-5920, ext. 3	bcscd.org
Calvert	410-535-1521, ext. 3	calvertsoil.org
Caroline	410-479-1202, ext. 3	
Carroll	410-848-8200, ext. 3	carrollsoil.com
Catoctin	301-695-2803, ext. 3	catoctinfrederickscd.com
Cecil	410-398-4411, ext. 3	cecilscd.com
Charles	301-638-3028	charlesscd.com
Dorchester	410-228-5640, ext. 3	
Frederick	301-695-2803, ext. 3	catoctinfrederickscd.com
Garrett	301-501-5886	garrettscd.org
Harford	410-638-4828	harfordscd.org
Howard	410-313-0680	howardscd.org
Kent	410-778-5150, ext. 3	kentsoilandwaterconser- vationdistrict.org
Montgomery	301-590-2855	montgomeryscd.org
Prince George's	301-574-5162, ext. 3	pgscd.org
Queen Anne's	410-758-3136, ext. 3	qascd.com
St. Mary's	301-475-8402, ext. 3	stmarysscd.com
Somerset	410-621-9310	
Talbot	410-822-1577, ext. 5	talbotscd.com
Washington Co.	301-797-6821, ext. 3	conservationplace.com
Wicomico	410-546-4777, ext. 3	
Worcester	410-632-5439, ext. 3	



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