

Stream Crossing

*Conservation solutions for
your Pennsylvania farm*

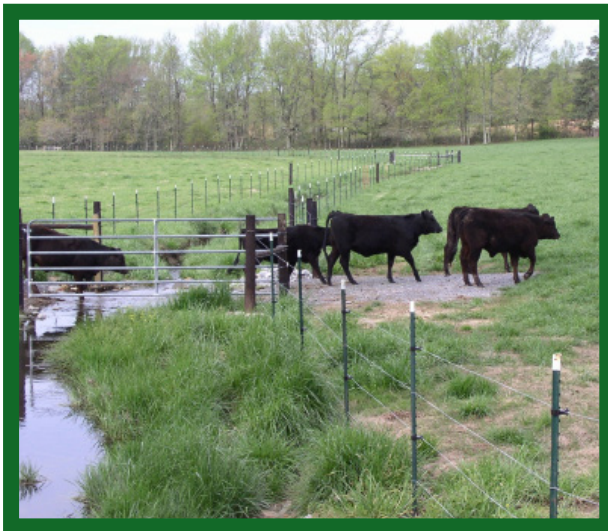
Do you have problems with...

- Livestock standing knee deep in mud?*
- Crossing a stream with your equipment?*
- Eroded stream banks?*
- Cattle loafing in streams and polluting the water?*

If so, you should consider a stream crossing!

DEFINITION:

A **stream crossing** provides a hard, stable area where cattle or equipment can cross a stream without damaging the streambed or banks, thereby maintaining a higher riparian area / stream quality.



Stream crossings can be a muddy mess

Benefits:

- Provide livestock access to all of your pastures
- Crop and graze fields that are difficult to get to
- Improve cattle health by keeping them out of the mud
- Keep your farm water cleaner by keeping cattle out of streams
- You decide where the cattle can cross the stream

Costs:

The costs for a stream crossing will be different depending on what you use to build it, how it will be utilized, and how large the stream is. Some of the costs to think about are:

- Grading the stream banks and bottom
- Gravel and filter fabric
- Hog panels, stone or other material to go in the bed of the stream
- Fencing to lead the livestock to the crossing

THE REAL BENEFITS:

You put in a stream crossing because you want to get to the other side, but the real benefit is to keep the water in your streams clean.

In Pennsylvania there are many miles of streams. High quality streams are extremely valuable resources. Stream crossings and stream bank fencing, are **cost-effective best management practices (BMPs)** that can help you improve the water quality of the streams flowing through your land and ultimately your neighbors' land. Installing crossings and fences limits livestock access to stream banks and establishes a riparian buffer of vegetation along the stream.

These **riparian buffers** reduce stream bank erosion, control manure runoff, and absorb potentially pollutive nutrients. The added vegetation can increase the beauty of your farm and provide habitat for birds, small mammals, and fish. Decreased livestock access to streams reduces risk of animal injury and waterborne disease.



FENCING:

Fencing is a companion practice of stream crossings. For information about fencing options see our *Fence Fact Sheet*. Different programs require different types of fencing and bank distances, contact your local NRCS office for assistance deciding what is best for you.



Example watering trough and pump

But what about...

Weeds from the riparian area?

Vegetation along the stream is necessary to control erosion. To minimize noxious weeds, some management within the riparian area will be needed. Responses will be farm-specific, contact NRCS for assistance.

Water for my livestock?

An access point can be provided, but secure and protect it from erosion. Alternate watering devices, such as spring developments, pasture pumps, and watering troughs will also work. See *Watering Facility Fact Sheet*.

A permit?

A permit is necessary to install a stream crossing. NRCS can help you obtain one from the Pennsylvania Department of Environmental Protection.

INSTALLING THE PRACTICE:

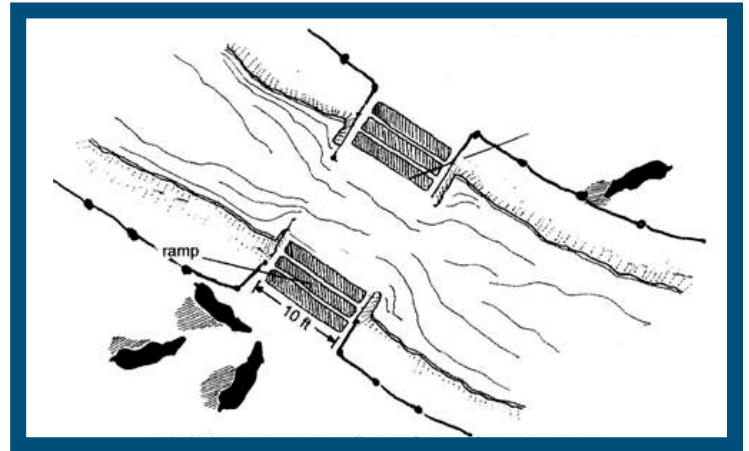
Stream crossings can be built in several different ways using different materials. Follow the steps below to install your crossing. Don't hesitate to contact your local NRCS office for assistance.

When?

Construct your crossing during the driest part of the year to avoid construction in the mud and resulting erosion.

Where?

Put the crossing in a straight section where the stream grade is stable. Avoid stream bends, tributaries, abrupt changes in channel grade, or close proximity to bridges or culverts.



Limit stream access to small areas for watering or crossing

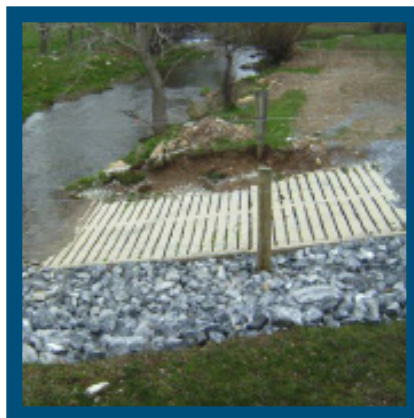
With What?

Several options are available for crossing construction. Three common ones are:

- (1) Rock laid over filter fabric.* This is the simplest method, but cows don't like to walk on large rocks and smaller rocks can wash away.
- (2) Hog slats laid over a bed of filter fabric and gravel.* Hog slats are precast concrete units used in confined hog housing.
- (3) A Geoweb, filled, and laid over filter fabric.* A Geoweb is a plastic web that can be filled with gravel.



Rock and Fabric



Hog Slats



Geoweb

Conservation Solutions for your Pennsylvania Farm

Technical Help Is Available

Your local Natural Resources Conservation Service (NRCS) office has experienced conservationists that can assist you in planning and installing a stream crossing. Detailed plans and instructions are available on how to install stream crossings. They can also help you develop a Conservation Plan to solve other problems you have identified on your farm.

There is no charge for our assistance. Simply call your local office at the number listed below to set up an appointment for someone to come to your farm.



You may also be eligible to receive financial assistance through state or federal programs. Your NRCS office will explain various programs that are available so you can make the best decision for your operation. All NRCS programs and services are voluntary.

NRCS FIELD OFFICES:

Adams: 717-334-4216 ext 3	Dauphin: 717-921-2380 ext 3	Monroe: 570-282-8732 ext 3
Allegheny: 724-482-4800 ext 3	Delaware: 610-696-0398 ext 3	Montgomery: 215-453-9527 ext 3
Armstrong: 724-545-1022 ext 3	Elk: 814-375-2125 ext 3	Northampton: 610-625-8392 ext 3
Beaver: 724-482-4800 ext 3	Erie: 814-796-6760 ext 3	Northumberland: 570-286-7114 ext 3
Bedford: 814-623-7900 ext 3	Fayette: 724-437-7971 ext 3	Perry: 717-582-4144 ext 3
Berks: 610-372-4655 ext 3	Forest: 814-226-8160 ext 3	Pike: 570-282-8732 ext 3
Blair: 814-695-6291 ext 3	Franklin: 717-264-8074 ext 3	Potter: 814-274-8166 ext 3
Bradford: 570-265-6969 ext 3	Fulton: 717-485-3812 ext 3	Schuylkill: 570-622-1312 ext 3
Bucks: 215-453-9527 ext 3	Greene: 724-627-5821	Snyder: 570-837-0007 ext 3
Butler: 724-482-4800 ext 3	Huntingdon: 814-627-1626 ext 3	Somerset: 814-445-6876 ext 3
Cambria: 814-472-5502 ext 3	Indiana: 724-463-8547 ext 3	Sullivan: 570-265-6969 ext 3
Cameron: 814-375-2125 ext 3	Jefferson: 814-375-2125 ext 3	Susquehanna: 570-278-1011 ext 3
Carbon: 570-779-0645 ext 3	Juniata: 717-436-8953 ext 3	Tioga: 570-724-1726 ext 3
Centre: 570-726-3196 ext 3	Lackawanna: 570-282-8732 ext 3	Union: 570-524-2549
Chester: 610-696-0398 ext 3	Lancaster: 717-299-5361 ext 3	Warren: 814-723-1217
Clarion: 814-226-8160 ext 3	Lawrence: 717-662-3740 ext 3	Washington: 724-222-3060 ext 3
Clearfield: 814-375-2125 ext 3	Lebanon: 717-272-3908 ext 3	Wayne: 570-282-8732 ext 3
Clinton: 570-726-3196 ext 3	Lehigh: 610-625-8392 ext 3	Westmoreland: 724-834-3970 ext 3
Columbia: 570-784-1062 ext 3	Luzerne: 570-779-0645 ext 3	Wyoming: 570-836-2490 ext 3
Crawford: 814-724-1852 ext 3	Lycoming: 570-433-3902 ext 3	Venango: 814-226-8160 ext 3
Cumberland: 717-249-1037 ext 3	McKean: 814-274-8166 ext 3	York: 717-755-2966 ext 3
	Mercer: 717-662-3740 ext 3	
	Mifflin: 717-248-9541 ext 3	