

Watering Facility

Conservation solutions for your Pennsylvania farm

Do you have problems with...

- Cows standing and drinking in a dirty stream?*
- Your animals frequently waiting in line for water?*
- Livestock walking a long way for water?*
- Animals grazing only around the water tank?*

If so, you should consider a watering facility!

DEFINITION:

Livestock watering facilities are permanent or temporary systems that ensure livestock have regular access their daily requirements of clean water.



Heavy equipment tire waterer

Costs:

The costs for a watering facility will be different depending on what you build and where the water comes from. Some costs to consider are:

- Developing a **water source** such as a spring, well or municipal water.
- **Piping and pumping** water from the source to the watering facility.
- Water **trough or tank**.
- **Protecting** the area around the facility.
- **Fencing** (See *Fencing Fact Sheet*)

Benefits:

- Maximize your livestock's weight gains on pasture.
- Save the time and work of hauling water to animals.
- Increase productivity by decreasing livestock stress.
- Improve the health of your livestock by providing clean, safe, dependable drinking water.
- Keep livestock out of your pond or stream, reducing erosion and pollution.



Using a farm pond as a water source

CONSIDERATIONS:

In designing and installing your water facility you must consider several important questions. Follow the steps below to begin the process.

(1) Choose a Water Source

A watering facility requires that you have a good, clean source of water; such as a stream, spring, pond, well, or public water system. *If the water source is also used for human consumption check local codes for protection requirements.*

(2) Temporary vs. Permanent

Permanent facilities will not change location. Temporary watering facilities are useful when the location of watering changes frequently. These systems can be run from a permanent source, or from temporary sources such as streams.

(3) How much water do you need?

You must ensure that your system is capable of providing enough water for each individual. Suggested rates include: *20-25 gal/day for EACH milking cow*, *8-12 gal/day for a beef cattle or horse*, and *2-3 gal/day per sheep*. These numbers increase in hot weather.

(4) Energy

Will you have access to electricity to pump the water? Do you need to install an alternative form of energy? Can you use gravity to your advantage? These questions will have case-specific answers. See the pumps on the next page for ideas of what's available.

(5) Piping

Permanent systems need durable, buried piping so they won't get damaged or freeze. Temporary systems need transportable / flexible piping to reach all necessary locations. For these, lay piping on the ground out of the way and drain the before freezing weather.

(6) Heavy Use Area Protection

Permanent or frequently used watering facilities should be protected from erosion and degradation. Refer to Conservation Practice PA561 - Heavy Use Area Protection, or talk to your local NRCS office, for more information.



Bury permanent piping underground



Protected permanent watering trough

MATERIALS:

For your new watering system you will need a trough/tank and a pump. Below are examples to help you get started!

Examples of Troughs/Tanks



Heavy Duty Plastic



Freeze Proof

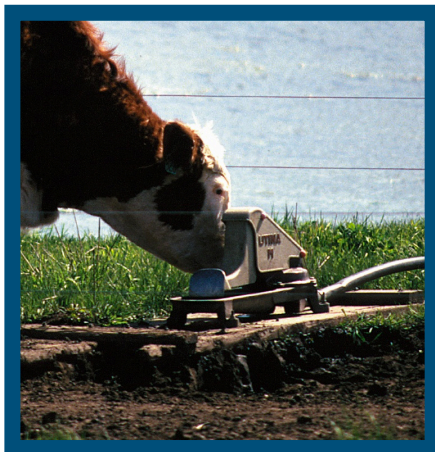


Permanent Concrete

Pumps

You will also need a pump. There are different kinds for different situations. Contact your local NRCS office if you are unsure which will work best for you. Options include:

- Gravity fed
- Sling pump
- Transportable cistern
- Nose Pump
- Solar pump
- Wind powered pump
- Hydraulic ram pump
- Gas/battery powered pump



Nose Pump



Solar Pump



Sling Pump

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 watering facility. Detailed plans and instructions are available on how to install watering facilities. 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
Allegheny: 724-482-4800 ext 3
Armstrong: 724-545-1022 ext 3
Beaver: 724-482-4800 ext 3
Bedford: 814-623-7900 ext 3
Berks: 610-372-4655 ext 3
Blair: 814-695-6291 ext 3
Bradford: 570-265-6969 ext 3
Bucks: 215-453-9527 ext 3
Butler: 724-482-4800 ext 3
Cambria: 814-472-5502 ext 3
Cameron: 814-375-2125 ext 3
Carbon: 570-779-0645 ext 3
Centre: 570-726-3196 ext 3
Chester: 610-696-0398 ext 3
Clarion: 814-226-8160 ext 3
Clearfield: 814-375-2125 ext 3
Clinton: 570-726-3196 ext 3
Columbia: 570-784-1062 ext 3
Crawford: 814-724-1852 ext 3
Cumberland: 717-249-1037 ext 3

Dauphin: 717-921-2380 ext 3
Delaware: 610-696-0398 ext 3
Elk: 814-375-2125 ext 3
Erie: 814-796-6760 ext 3
Fayette: 724-437-7971 ext 3
Forest: 814-226-8160 ext 3
Franklin: 717-264-8074 ext 3
Fulton: 717-485-3812 ext 3
Greene: 724-627-5821
Huntingdon: 814-627-1626 ext 3
Indiana: 724-463-8547 ext 3
Jefferson: 814-375-2125 ext 3
Juniata: 717-436-8953 ext 3
Lackawanna: 570-282-8732 ext 3
Lancaster: 717-299-5361 ext 3
Lawrence: 717-662-3740 ext 3
Lebanon: 717-272-3908 ext 3
Lehigh: 610-625-8392 ext 3
Luzerne: 570-779-0645 ext 3
Lycoming: 570-433-3902 ext 3
McKean: 814-274-8166 ext 3
Mercer: 717-662-3740 ext 3
Mifflin: 717-248-9541 ext 3

Monroe: 570-282-8732 ext 3
Montgomery: 215-453-9527 ext 3
Northampton: 610-625-8392 ext 3
Northumberland: 570-286-7114 ext 3
Perry: 717-582-4144 ext 3
Pike: 570-282-8732 ext 3
Potter: 814-274-8166 ext 3
Schuylkill: 570-622-1312 ext 3
Snyder: 570-837-0007 ext 3
Somerset: 814-445-6876 ext 3
Sullivan: 570-265-6969 ext 3
Susquehanna: 570-278-1011 ext 3
Tioga: 570-724-1726 ext 3
Union: 570-524-2549
Warren: 814-723-1217
Washington: 724-222-3060 ext 3
Wayne: 570-282-8732 ext 3
Westmoreland: 724-834-3970 ext 3
Wyoming: 570-836-2490 ext 3
Venango: 814-226-8160 ext 3
York: 717-755-2966 ext 3