



Spring Development

Small Scale Solutions for your Farm in Indiana

Do You Have Problems With:

- Seeps or wet areas in your pasture
- Livestock knee deep in mud while trying to drink out of a spring
- Dependable drinking water for your livestock
- Getting water to remote areas of your fields where electricity is not available



A spring in a pasture can be a muddy mess.

A Spring Development Can Help

Benefits of a Spring Development:

- A clean free source of water
- Pumps and electricity are usually not needed
- May not freeze in the winter
- Source of water for more than one spot
- Water is cool in the summer and warm in the winter which will encourage livestock to drink more water.
- Good water distribution improves grazing and animal health



A spring development can supply good clean water to livestock

Costs :

Spring development costs are relatively cheap compared to water wells or ponds. Pumps and electricity are usually not required. Some of the costs for a spring development are:

- Digging with a backhoe
- Gravel
- Pipe
- Spring box
- Permits

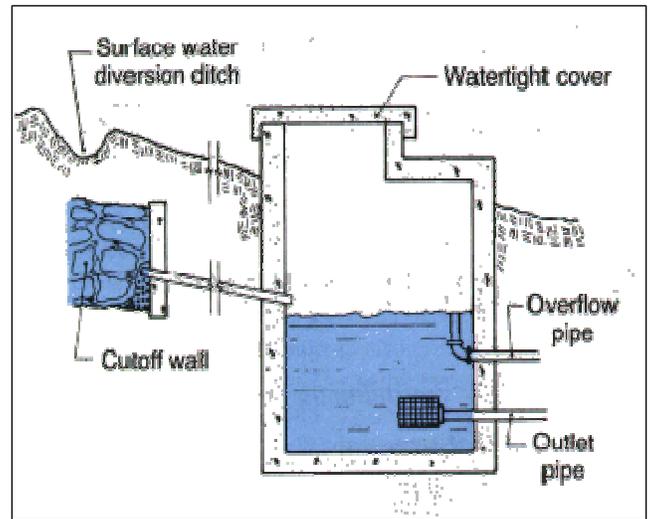
Spring Development

How to Install the Practice:

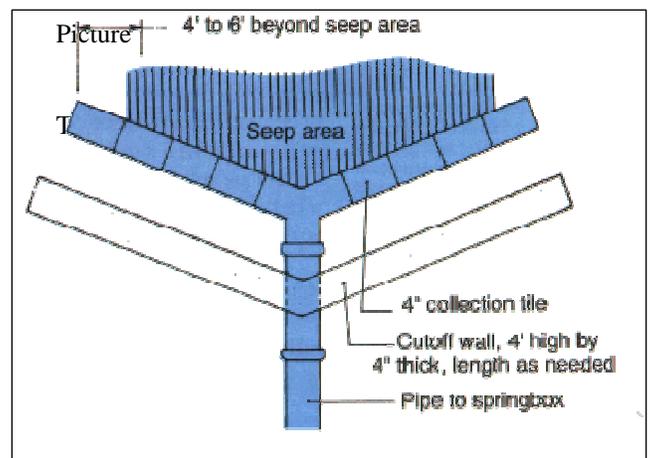
Springs are often associated with wetlands. Work with the NRCS office to make sure wetland rules are not violated when you develop a spring. Also check with local authorities to obtain all necessary permits before working in streams and potential wetlands. Permits may be required from Indiana Department of Environmental Management (IDEM), the US Army Corps of Engineers (USACE), and/or others.

A spring is developed by collecting the water that flows out of a spring or seep in a pipe to a watering trough. A spring can be developed in several different ways but generally the steps are:

- Dig into the hillside to find the source of the spring or seep.
- Put down gravel and perforated pipe to collect the water.
- Build a dam of compacted soil, plastic sheeting, or concrete downstream from the gravel and pipe to force the water into the pipe.
- Run the pipe to a spring box to settle out dirt and sand.
- Run a pipe from the spring box to a watering trough.



Developing a spring



Developing a seep

Other Benefits:

Even a small spring flowing all the time can provide a lot of water. For example a spring flowing at $\frac{1}{2}$ gallon per minute makes 720 gallons in a day. With a tank for storage this could easily provide drinking water for 10 or more beef cows.



Spring Development

How to Maintain the Practice:

- Springs are easy to maintain.
- Keep livestock and farm equipment off the area around the spring development.
- Divert surface water away from the spring box. Surface water usually has sediments and could contaminate the spring.
- Clean the settling basin out once or twice a year.
- Check for leaks in pipes and the spring box.
- Check the overflow pipe to make sure it is not clogged.



A spring development can supply water to more than one pasture

SMALL SCALE SOLUTIONS FOR YOUR FARM IN INDIANA

Technical Help Is Available

Your local Natural Resources Conservation Service (NRCS) office has experienced conservationists that can help you plan and design a spring development. They can also help you develop a Conservation Plan to solve other concerns you have identified on your farm.

There is no charge for our assistance. Simply call your local office to set up an appointment and we will come to your farm. Requests for our assistance are numerous, but we will assist you as quickly as we can.

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



Helping People Help the Land

For More Information Contact the:

Natural Resources Conservation Service at the USDA Service Center for your county

On the web at <http://offices.sc.egov.usda.gov/locator/app>

Or

Located in the phone book under 'United States Government, United States Department of Agriculture, USDA Service Centers'

Or the

Local Soil & Water Conservation District

(Typically co-located in the local USDA Service Center)

Office hours: M-F, 8:00 am to 4:30 pm (closed on federal holidays)

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