

Do You Have Problems With:

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

Developing a Spring Can Help

Springs or seeps can be developed to provide clean drinking water for livestock.

Benefits of Developing a Spring :

- A clean free source of water
- Pumps and electricity are usually not needed
- Doesn't 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 cattle to drink more water.
- Good water distributions improves grazing and animal health



A spring in a pasture can be a muddy mess.



A spring can be developed to supply good clean water to livestock

Costs :

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

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

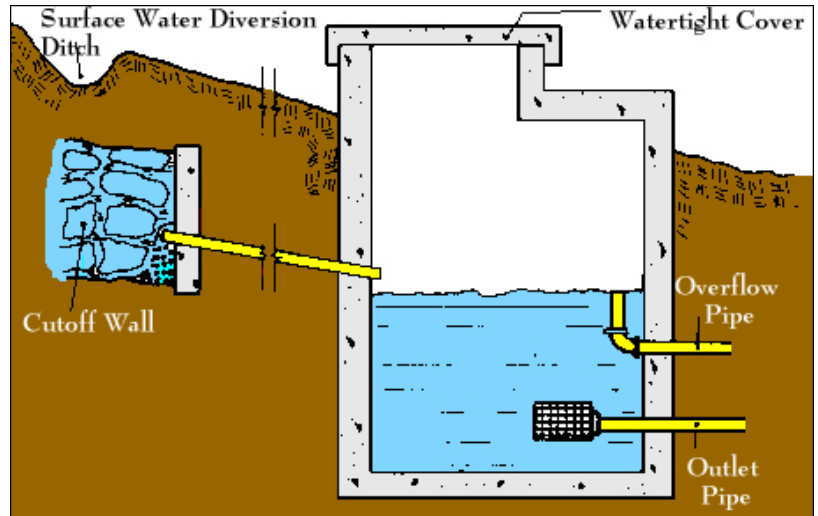
Spring Development

How to Install the Practice:

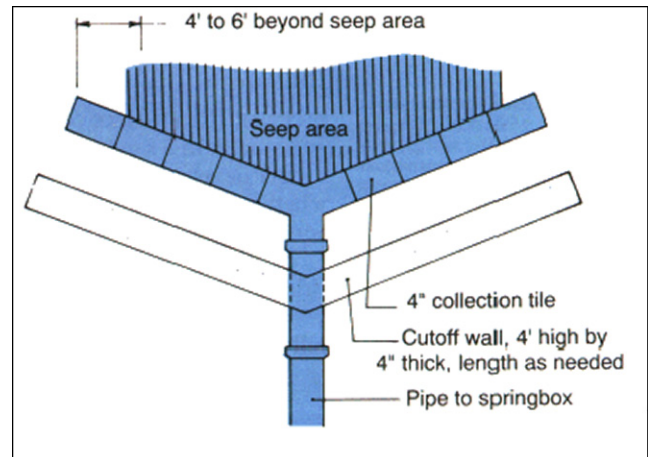
A spring is developed by collecting the water that flows out of a spring or seep in a pipe so that the water can flow through a pipe to a watering trough. A spring can be developed in several different ways but generally the steps are:

- Dig into the hillside to find the source of the spring or seep.
- Put down gravel and 4" perforated pipe to collect the water.
- Build a dam of compacted soil 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.
- Grade and cover all the pipe and gravel.

Springs are often associated with wetlands. Work with the NRCS office to make sure wetland rules are not violated when you develop a spring.



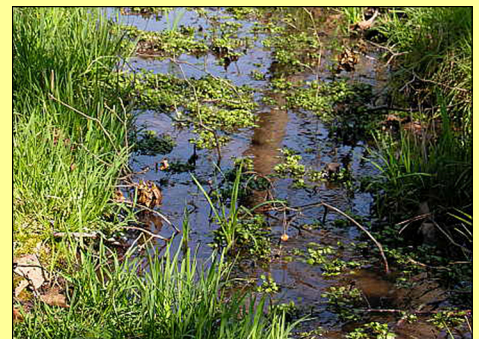
Developing a spring



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

Technical Help Is Available

Your local Natural Resources Conservation Service (NRCS) office has experienced conservationists that can assist you with spring development. 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 and we will come to your farm.

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

The United States Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326W, Whitten Building, 14th and Independence Ave., SW, Washington, D.C., 20250-9410, or call (202) 720-5964 (voice) or (202) 720-1127 (TDD). USDA is an equal opportunity provider and employer.