

WATERSHED FACTS

Farms & Streams

Good Farm Stewardship Protects Streams & Watersheds

Farmers and ranchers have incentives to be good land stewards. Their livelihood depends on keeping the land productive. They must keep soils in place and in good condition. They need clean water for their households and livestock. Many times, farms are handed down in the family, and future farmers will need healthy and productive soil and water resources as well.

Watershed Committee of the Ozarks and the Natural Resources Conservation Service recognize that well-managed and maintained farmlands contribute positively to a healthy watershed. We also know that farming is a difficult business—it requires hard work and is often difficult to make ends meet. But these factors only make it more important to be efficient, maintain long-term productivity and protect precious soil and water resources.

This factsheet is intended to suggest ways that you might maintain, or even increase, productivity while saving resources for the future. We certainly don't have all the answers, but we do want to see you succeed. It is in everyone's best interests that you do.

TRADITIONAL GRAZING

Livestock eat the plants they like best, causing them to be replaced with less desirable and less nutritious plant species. Livestock spend most of their time in or near the stream during warmer weather, overgrazing pasture near the stream, underutilizing forage further away. Streambank vegetation is trampled, denuding banks and leading to more erosion. Animal waste is concentrated in stream zones where it may pollute water.

MANAGED GRAZING

In managed grazing, pastures are divided into sections, or paddocks, which are grazed one at a time. Livestock are grazed only long enough to eat the desired amount of the most nutritious forage, then the paddock is rested and allowed to regrow. Animal performance is usually improved, and herd health can be improved because cattle spend less time in wet areas and are drinking water less susceptible to contamination. Streamside



Not maintaining a healthy riparian corridor can lead to eroding cutbanks, washing away valuable soil.

vegetation stays healthier, reducing erosion and improving water quality. Animal waste is a fertilizer and should be distributed more evenly over the entire grazing area, rather than becoming a water pollutant.

STREAMBANK STABILIZATION

Erosion in stream zones leads to a loss of productive farmland and an increase in downstream siltation, which is harmful to wildlife and water quality. Riverside lands often contain the richest soils in the Ozarks, which have taken thousands of years to form.

The best way to preserve these soils is to leave a healthy, vegetated buffer along streams. Trees tend to be the best at holding soil and should not be removed for at least 50–100 feet back from the stream bank. Where active bank-cutting is occurring, methods such as willow staking or revetments can often be used to reduce erosion. Technical advice for these methods can be provided through the Missouri Department of Conservation.

STREAMSIDE BUFFERS

Leaving vegetation along stream zones or creating new buffers can benefit landowners. Soil erosion is minimal in well-vegetated areas. Buffers filter runoff from fields or pastures, improving stream water quality. Forested buffers also provide benefits such

as firewood, saw timber, nuts and berries, wildlife habitat, improved fishing, clean swimming holes and reduced flood damage.

ALTERNATIVE WATERING SYSTEMS

Providing clean water to livestock increases productivity and improves animal health. Where electricity is not readily available, water can be pumped using solar power from the stream or from a shallow well or spring into stock tanks at a planned location away from the stream. Wells, pipelines, spring developments and ponds are alternatives to consider.

Advantages of alternative watering systems include:

- Cleaner, disease-free water; reduced parasite load
- Tanks can be placed where needed to improve grazing distribution
- Adequate quantity of water
- Improved livestock production
- Long-term electricity costs eliminated by solar power

WELLS & SEPTIC TANKS

The well casing should extend above ground level, especially in areas that may flood. Water should be tested annually for bacteria, a service provided by local health departments. Never store or mix chemicals

like pesticides in a wellhouse or near a well-head. Abandoned wells need to be properly sealed because they can transport pollutants down into drinking water aquifers.

Septic systems should be located away from streams, sinkholes and floodplains whenever possible. Tanks should be inspected at least every three years and pumped if solids have reached 40 percent of the liquid depth of the tank. Toxic chemicals like degreasers and paint should never be allowed to go into a septic tank. Local health departments can offer advice on problems.

FUEL & CHEMICAL MANAGEMENT

Gasoline and other fuels are some of the most common chemical pollutants in groundwater. Storage tanks should be on concrete with curbing so that spills can be contained. Pesticide and other chemical containers should be rinsed according to label directions and properly disposed. Water hoses should not be left submerged in mixing tanks while filling because back-siphoning could cause chemicals to be sucked into the water supply.

COST-SHARE OPPORTUNITIES

- Managed grazing systems
- Plugging abandoned wells
- Streamside buffers
- Alternative watering systems
- Cross-fencing
- Wells

For more information on cost-share, please contact your local Natural Resources Conservation Service or Soil and Water Conservation District office.



BEFORE:
Without a properly stabilized streambank, the stream running through this farmland has eroded the bank and carried valuable soil away.



AFTER:
Planting and establishing a healthy riparian corridor along the streambank helps stabilize the bank, preventing further erosion and water pollution.



Sustaining and improving the water resources of Springfield and Greene County through education and effective management of our region's watersheds

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