



Agricultural Environmental Management ***Farming in Harmony with Stream Health***

By Barbara Silvestri

Is there a stream or brook that runs through your farm? Traditionally farms have been located near water sources to meet farm needs. Even as times change, healthy streams provide multiple benefits to farms. Streams enrich the soil with seasonal flooding, provide fish and wildlife habitat, and enhance scenic beauty and land values.

Streams also link farms to the rest of the watershed. Your farm's interaction with streams is one of its most immediate opportunities to benefit the environment or to cause pollution risks. Our continuing series on New York State's Agricultural Environmental Management (AEM) Program focuses this quarter on the Stream and Floodplain Management Worksheet. This worksheet will walk you through a quick assessment of your stream's health and help identify potential risk factors. The best part is that there are cost-sharing programs that offer incentives to farmers to improve stream corridors. These opportunities are available to farms of all types and sizes.

WHAT IS A HEALTHY STREAM?

A stream is a complex ecosystem in which physical, biological and chemical processes interact. Streams naturally change course over time as they meander across the landscape. Some stream bank erosion and changes in channel are normal in a healthy stream as it gradually changes its course. However, active down cutting and excessive lateral cutting are signs of an unstable stream channel.

Periodic flooding and "bankfull flow," when the stream channel is full without overflowing, are healthy stream functions. They maintain channel shape and function, such as sediment transport, and sustain physical habitat for plants and animals.

Thriving streamside vegetation is one of the most important elements of a healthy stream ecosystem. Stream protection increases with the width and complexity of the woody vegetation along the streambanks. Ideally, natural vegetation should extend at least one channel width on each side. This not only helps stabilize the streambanks, but also provides excellent habitat for wildlife.

Trees shading the stream channel cool the water and provide leaf litter and woody debris, improving fish habitat. Tree roots help stabilize streambanks by holding soil in place during periods of high flow. Streamside vegetation can also increase crop yields by providing habitat for beneficial insects, and maintaining stable streambanks can help you reduce the risk of losing valuable cropland to streambank erosion.

Water quality can be protected by ensuring that there is adequate vegetation between the stream and crop fields or pastures to filter farm runoff before it reaches the stream. Proper timing of nutrient application in floodplains can also reduce the risk of nutrients being washed downstream by floodwaters. Nutrient inputs from farms, households and businesses can compound in the watershed and cause pollution concerns downstream. Reducing the risk of nutrient runoff from farm fields is one way farmers are doing their part and helping maintain the status of agriculture as a preferred land use for water quality protection.

Conducting an AEM Risk Assessment can give you an accurate picture of how your farm operation is interacting with streams and whether improvements are needed to benefit the farm and the environment.

The AEM program is designed to assist you in environmental stewardship while protecting your bottom line, and stream management doesn't have to break the bank.

Often stream health can be improved by simple management changes such as preventing livestock access to streams, which has the added benefit of improving herd health and adding to the bio-security of the farm. For more expensive needs, such as fencing and alternate water supplies, there are cost-share programs that can help.

COST-SHARE PROGRAMS

One funding opportunity is the New York State Conservation Reserve Enhancement Program (CREP). Made possible through a partnership between the State and US Departments of Agriculture, this program provides incentives to landowners who create vegetative buffers along streams. Through CREP, farmers establish three zones, trees next to the stream, then shrubs and finally grasses.

Signup for CREP is continuous and there is no competitive process to obtain the funding. Participants who are eligible receive financial incentives to voluntarily enroll environmentally sensitive cropland or pastureland in contracts for a period of 10 to 15 years. Financial incentives for CREP participants include an annual rental payment as well as partial reimbursement for the establishment of streamside vegetation and the cost of livestock exclusion when needed.

If you farm in New York and would like to schedule a free, confidential AEM Risk Assessment for your farm, including the Stream and Floodplain Management Worksheet, contact your County Soil and Water Conservation District. To learn more about AEM, view the Worksheets (including the Stream and Floodplain Management Worksheet), or to locate your Conservation District office, visit: www.nys-soilandwater.org.

Check the next issue for more information on how AEM is helping over 11,000 farm families statewide farm cleaner and greener, and how you can put AEM to work on your farm.

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