Lower Thames Valley Conservation Authority

Rural Best Management Practice Factsheet

Buffer Strips

Why Should I Create a Buffer Strip?

Buffer strips offer a last line of defense to help protect a watercourse from the possible negative impacts associated with surface runoff from agricultural fields. In some cases buffer strips are not overly used in the watershed and typically you will find some try to till and plant as close as possible to a drain or watercourse. However, this may not be the most environmentally and economically sustainable option. When you till or plant right up to the edge of a drain or watercourse you increase the likelihood for surface water carrying sediments and nutrients to enter a watercourse which could increase the likelihood of a drain cleanout. Furthermore, when planting right up to a drain or watercourse you will sacrifice the integrity of the slope bank and slumping can occur, again causing a chance for increased likelihood of more frequent drain cleanouts. The fact of the matter, the planting of a buffer strip can help to prevent the frequency of drain cleanouts occurring along a drain. When you keep your soil on your farm it can help reduce the frequency of drain cleanouts which can help you save money as vegetated buffer strips can improve soil stability and reduce soil erosion loss. The success of a buffer strip depends heavily on its location, size, shape and vegetation planted. An assessment of current site conditions and features along with an idea of the key functions or benefits a landowner is looking to achieve can help in determining what type of buffer strip to apply.

How does it work?

A strip of vegetation is planted alongside natural areas, such as a watercourse, to protect them from surrounding land uses. The plant roots help to stabilize soils, reducing erosion caused by runoff. Dense, upright vegetation creates obstacles that slow water runoff as it travels towards the watercourse allowing sediment, excess nutrients and other chemicals to drop out and settle within the buffer strip rather than entering the watercourse directly. The reduced runoff also allows the water to move down slowly through the soil where plant roots can then absorb nutrients, while filtering salts, metals, pesticides and pathogens before they enter the watercourse. Buffer strips help reduce sheet flow erosion from adjacent fields and are not meant to manage concentrated flow that cuts channels or creates washouts. This type of erosion requires a rock chute or other BMP methods. The type of vegetation incorporated in the buffer strip depends on the desired function of the buffer strip and site conditions. Buffer strip cover types can include grasses, wildflowers, shrubs, trees or a combination.

What cost-share programs are available?

In an effort to improve the quality of our environment, the Lower Thames Valley Conservation Authority (LTVCA) has developed a comprehensive Agricultural Improvement Fund (AIF) to improve Chatham-Kent, Elgin, Essex and Middlesex County's soil, air and water by providing grants for stewardship projects. Grants are available to qualifying famers and landowners to implement buffer strips on their farm to help improve local water quality. Participation in the program is entirely voluntary, and will not have any impact on property rights. Please be sure to contact the LTVCA office **before** initiating any project for which you wish to apply for a grant: P 519-354-7310. Funding for buffer strips is also available through the Ontario Soil and Crop Improvement Associations Growing Forward 2 program. For more information please see: http://www.ontariosoilcrop.org/en/programs/growing_forward_2.htm

How does this benefit the environment?

Buffer strips can help improve wildlife habitats by adding shade, nesting sites, travel corridors and food sources to the area while also improving water quality. Buffer strips remove sediment, nutrients, and other chemical contaminants from runoff before entering the watercourse. They increase diversity of vegetation leading to habitat improvement by providing shade, travel corridors, nesting sites and food sources for animals and insects. The increase in vegetation cover can also help remove carbon dioxide (a major greenhouse gas) from the atmosphere and improve a soils water-holding capacity.

References

Ontario Ministry of Agriculture and Food, Ontario Cattlemen's Association, and Ontario Federation of Agriculture. Best Management Practices: Buffer Strips. 2011

Essex Region Conservation Authority. Clean Water~ Green Spaces: Rural and Agricultural Landowner Grants/ Water Quality and Natural Areas Restoration Grant Program. 2011

Ontario Soil & Crop Improvement Association, Species at Risk, Farm Incentive Program, SARFIP 2013-2014.

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