

MONMOUTH COUNTY  
PLANNING BOARD'S



# ECO-TIPS:

## Stream Corridor Protection

### INTRODUCTION

Stream corridors are an important natural resource for Monmouth County. The land and vegetation alongside streams help buffer waterways from the negative impacts of human activities. These corridors sustain water quality, drinking water supplies and overall ecosystem function. In addition, they control flooding and provide wildlife habitat and scenic amenities. Sometimes we forget just how valuable stream corridors are. We build too close to the water, cut down trees unnecessarily, and pile yard waste and debris at the water's edge. These are practices that have negative impacts on the environment and human health.

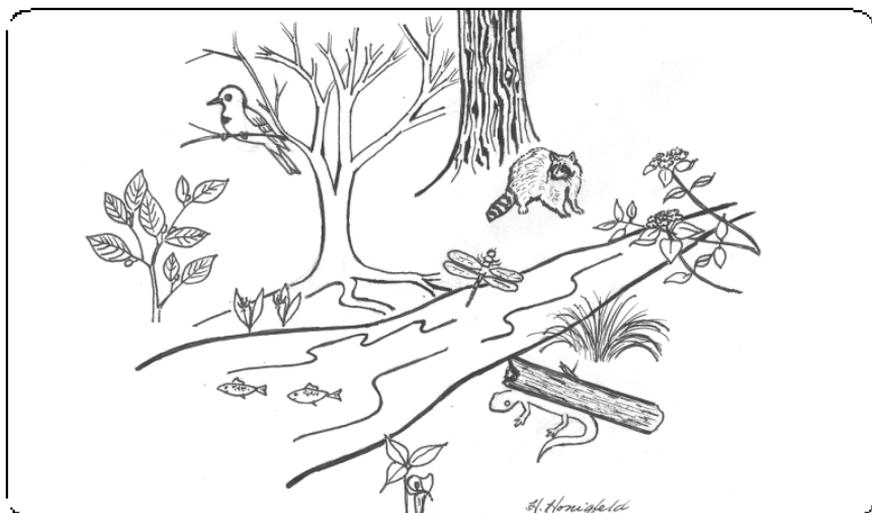


# THE IMPORTANCE OF HEALTHY STREAM CORRIDORS

Monmouth County's stream corridors provide numerous environmental and economic benefits:

## FOR WATER QUALITY

Stream corridors help maintain water quality. The vegetation within stream corridors filters pollutants in the soil, air and water. The root systems of trees and other ground cover prevent erosion by holding stream banks in place during storms. This keeps excess sediment from destroying habitat that is important for fish reproduction and development. Wide, vegetated corridors have other positive effects on water quality. They shade streams and moderate water temperature. The cooler water promotes high levels of dissolved oxygen that are essential for the survival of trout and other desirable species. Vegetated land along streams also aids aquifer recharge which, in turn, replenishes drinking water supplies.



Stream corridors provide habitat for an interconnected system of plants and animals.

## FOR ECOSYSTEM FUNCTION

Many animal species are dependent on stream corridors. Reptiles, birds and mammals use these areas during seasonal migrations and in the course of daily activity. Vegetation alongside streams offers shelter and habitat for nesting and mating. The plants supply berries, nuts and nectar and harbor insects for birds, fish and amphibians to feed upon.

When stream corridors are narrowed and paved over, the entire ecosystem suffers.

## FOR FLOOD CONTROL

Stream corridors and the wetlands within them help control the magnitude of flooding during storms. By detaining and absorbing water, these areas moderate stream flows. This minimizes damage to homes and businesses.

## FOR RECREATION

Recreation and tourism are significant parts of our local economy. In 1999 tourism revenues for Monmouth County totaled \$1.8 billion. Recreational activities such as fishing, swimming, boating, hiking and bird watching depend on clean waterways. Maintaining healthy stream corridors on private lands helps support the regional economy and increases the value and attractiveness of all properties in the area.

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## PROTECTING STREAM CORRIDORS

The New Jersey Freshwater Wetlands Protection Act and the federal Clean Water Act provide a level of legal protection for streams and wetlands. In addition, several communities in Monmouth County have enacted zoning ordinances aimed at protecting stream corridors. However, this may not be enough to guarantee uncontaminated, functioning corridors. Homeowners and private landowners must also practice sound stewardship. Fortunately, there are many things that can be done to enhance and protect stream corridors.

## ESTABLISH BUFFERS

One of the most effective things that can be done is to create a buffer, a protected zone within the stream corridor. The buffer can be established informally or through the adoption of a municipal ordinance. The size of the buffer may vary. A minimum width of 35 feet from each stream bank is recommended by the United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS), whereas the Center for Watershed Protection recommends a 100-foot buffer.

Within a buffer, it is important to maintain natural vegetation, refrain from dumping waste materials, and avoid building or storing anything heavy. Vegetated buffers help sustain water quality and provide wildlife habitat. Waste such as construction debris and leaf, grass and twig piles can wash into streams, causing jams and promoting flooding and mosquito breeding. Heavy structures, such as sheds and swing sets, can weaken stream banks, leading to erosion and sedimentation in the waterway.



Natural vegetation within stream corridors reduces erosion and helps maintain water quality.

## PREVENT EROSION

There are many ways to prevent the erosion of stream banks and damage to the larger stream corridor. One way is to limit access to the water to selected points, not only for humans but also for pets. This will reduce the trampling of plants and negative impacts on soil. Maintaining existing groundcover and planting additional native vegetation in bare spots will keep sediment from washing into the water, and help to brace stream banks.

Landowners can use a technique known as bioengineering to strengthen and stabilize eroding banks. Examples include inserting live willow stakes into the soil and installing secured bundles of branches along the stream banks. The USDA-NRCS has publications available to guide property owners interested in implementing such erosion control measures.

## KEEP WATER CLEAN

To sustain the function of streams and their surrounding corridors, use lawn and garden chemicals sparingly and responsibly. Apply synthetic pesticides and fertilizers to yards only as a last resort and always follow label instructions. Among other risks, these chemicals can upset the ecological balance of natural communities by unintentionally harming beneficial species of insects, plants and animals. Excess fertilizer, moreover, can wash into waterways, where it accelerates algae and other unwanted plant growth. For similar reasons, it is necessary to clean up after pets and properly maintain septic systems. The Monmouth County Planning Board's "Eco-Tips for Lawns and Gardens" provides additional suggestions for how to manage landscapes in an environmentally sensitive manner and reduce nonpoint source pollution.

## AWARENESS

The Monmouth County Planning Board has been working to erect identification signs at stream crossings throughout the region. Several municipalities have installed similar signs as well. The signs are intended to help residents and visitors attain an increased awareness of their surroundings and the impact they may have on their environment. So the next time you see one of these signs, remember that maintaining buffers, preventing erosion and keeping water clean are just some of the many ways to protect the stream corridors of Monmouth County.



# FOR MORE INFORMATION

## Contact:

Monmouth County Planning Board  
Environmental Planning Section  
Hall of Records Annex, 2nd Floor, One East Main Street  
Freehold, NJ 07728  
732-431-7460

USDA-Natural Resources Conservation Service  
Freehold Office  
732-462-1079

## Additional publications on this topic include:

"Eco-Tips for Lawns & Gardens."  
Monmouth County Planning Board, 2000.

*Stormwater and Nonpoint Source Pollution Control Best Management Practices Primer.* Monmouth County Planning Board, 1996.

*River-Friendly Resident:  
A Guide for Owners of Waterfront Property in Central New Jersey.*  
Stony Brook-Millstone Watershed Association, 1997.

Schuler, Tom. "Urban Stream Buffer Architecture." PAS Memo,  
American Planning Association, August 2000.

Olohan, M.T. and T.B. Shelton.  
"Polluted Runoff and You: Solutions for Your Home and Environment."  
Rutgers Cooperative Extension.

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