

**TO LESSEN  
PROPERTY DAMAGE**



Ohio OEQ



**TO PREVENT ROAD  
DAMAGE**

**TO REDUCE  
RESIDENTIAL FLOODING**



GEO Cities

# **ARE YOU CRAZY?! WHY "WASTE" MUNICIPAL DOLLARS TO PRESERVE NATURAL INFRASTRUCTURE?**



Reeley -The Daily Eastern News

**TO PREVENT CLOGGED STORM DRAINS**

**TO AVOID FISH KILLS**



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# **SAVING MONEY BY LETTING NATURAL STREAM FEATURES WORK FOR YOUR MUNICIPALITY**

## **UNDERSTANDING THE BASICS**

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## **Introduction:**

The southwestern Pennsylvania region has been experiencing repeated episodes of flooding over the last few years. Even with newer ways of dealing with stormwater runoff, places that never had problems with high water in the past are routinely hit with it now. Dealing with all the time, effort, and costs associated with the damage to homes and businesses, the clean up, the complete losses, and the reduced property values have become more than many people can bear. They want action to protect them. Yet many in local, county, and state governments believe that everything that could be done has been.

How did we reach this point? Historically, we have viewed stormwater as a waste product to be eliminated as fast as possible. From this attitude came the engineering to deliver that goal. Wetlands and small tributaries in the path of development were drained and culverted. Storm sewer systems quickly conveyed runoff from roofs and pavement to the either the nearest stream or into the sanitary sewer system. Out of sight, out of mind.

But the sudden delivery of large volumes of stormwater runoff to streams or wastewater treatment plants was having its effects. Streambanks suffered erosion and scouring from flash flooding. Suspended sediments impacted water quality, habitat and fisheries. Deposited sediments reduced channel volumes, thus increasing flooding potential. Wastewater plants could not handle the increased volume that a rain event created. The only option that protected the equipment and buildings was not to treat the flow, allowing raw sewerage to flow into the receiving stream or river. Increased development was decreasing rainwater infiltration to the water table and increasing stormwater runoff volume.

While in many places, steps have been taken to prevent the worst of these situations, the full extent of the problems causing them is still not understood. Until all parts of the total picture are in focus and become integral to the way we think as a society, our ability to solve these problems is compromised.

This primer is designed simply to introduce basic concepts to elected and appointed municipal officials, municipal staff members, and all residents of Turtle Creek's watershed. As we all become familiar with the issues, the terminology, and the options, our collective ability to make good choices for upstream and downstream communities is enhanced.