Flood Control

Over the years, flooding has taken its toll on the residents of Cranford. Millions of dollars have been spent to try to manage the flow of water through our town during major weather events and these steps have helped during some storms. Minimizing flooding in Cranford requires a regional solution and we will need the communities upriver to help. The good news is that work is being done to find these solutions. The bad news is that the major projects that can have the most impact are expensive and will not be done anytime soon.

So while we wait the county, state, and federal governments to do something, what can we do? The fact is that there are small steps each of us can take to help reduce flooding. Each of us has to do all we can to help solve our problem. If we expect other communities to take steps to help, we have to lead by example.

Here are a few steps you can take:

Trees: Plant trees and don't remove old healthy trees - Trees catch rainwater! Leafy tree canopies catch precipitation before it reaches the ground, allowing some of it to gently drip and the rest to evaporate. This lessens the force of storms and reduces runoff and erosion. Research indicates that 100 mature tree crowns intercept about 100,000 gallons of rainfall per year, reducing runoff and providing cleaner water.

Source: USDA Forest Service. 2003. "Benefits of Urban Trees. Urban and Community Forestry: Improving Our Quality of Life".

Tree roots absorb water from the soil, making the soil drier and able to store more rainwater. They also hold the soil and stream banks in place, reducing the movement of sediment that can clog drains and shrink river channels downstream.

Trees also shade the soil, and create a cooler surface which absorbs rainwater more easily. Additionally, their leaf litter changes the chemical properties of the soil, allowing it to absorb still more soil while giving it more nutrients. This in turn builds a rich layer of humus which can absorb six times as much rainwater as bare ground.

A typical community forest of 10,000 trees will retain approximately 35 million liters of rainwater per year.

Source: USDA Forest Service. 2003. "Is All Your Rain Going Down the Drain? Look to Bioretainment-Trees are a Solution".

Learn More

Minimize impervious surfaces - Under normal conditions, when it rains, the water is absorbed by the soil. From the soil, it slowly trickles into groundwater supplies, recharging them, and it reappears in surrounding rivers, lakes, and streams. While the soil may become swollen and moist, flooding is relatively rare, because the natural environment is designed to absorb water from even heavy storms. An impervious surface, however, does not allow liquid to reach the soil, which means that it stays on the surface of the Earth, and this causes an assortment of problems.

When replacing walks and driveways, consider Pervious Concrete or other pervious options. Learn More

Reduce the size of your lawn and expand your garden - Water Infiltration is the speed that water can move into the soil. If it rains faster than water can infiltrate, rain water runoff from your lawn and into the street. Water moves into soil through small spaces made by insects and the normal action of growing roots and soil microbes. Unfortunately, whatever topsoil remains is compacted – reducing the spaces for water to infiltrate. Rain comes down. A little water soaks in, more runs off. The streets fill up and the runoff heads for the river.

A natural landscape consisting of native vegetation has root systems that usually extends down 3 to 10 feet or more, whereas the roots of lawn grass usually extend only about 3 to 4 incheds. These deep-rooted native plants stabilize soils, prevent erosion, and provide natural habitats for birds and butterflies.

For more information on natural landscaping, visit: http://www.npsnj.org/.

Increase infiltration into your lawn by - maintaining the health of grass, trees, and native plants; incorporate compost or bark when you renovate or aerate your lawn to increase organic matter in the soil — it will act like a sponge.

Install rain barrels - A rain barrel is a water tank used to collect and store rain water runoff, typically from rooftops via rain gutters. Rain barrels are installed to make use of rain water for later use. Stored water may be used to water indoor and outdoor potted plants and landscaped areas, clean off gardening tools, wash your car, and for other non-potable uses. Why use a rain barrel? An average home with a roof size of 1,000 square feet will generate approximately 600 gallons of water from a 1-inch rainfall. Collecting and using this water with rain barrels helps reduce the demand on public and private water supplies, and reduces pollution, flooding, and erosion in local waterways by reducing storm water runoff.

Check out this **HGTV** on Rain Barrels and visit the **Rutgers Water Resource Program** for more information.

Direct your gutter downspouts into your lawn or garden rather than toward a driveway or into a sewer. “Soak it in” rather than “run it off.”

Install a Rain Garden - Designed to drain in <24 hrs after a rain, they decrease runoff, increase groundwater, AND add color and beauty. Learn More

Install a rainwater cistern which is simply a setup for collecting rainwater (usually the precipitation that falls on your home's roof) and storing it until it's needed in a (usually underground) concrete or masonry tank. Learn more