



DOWNSPOUT DISCONNECT

In developed areas, impervious or hard surfaces, such as rooftops, roadways, patios, and sidewalks, prevent stormwater (water runoff created from rain events) from being absorbed into the ground. Rain water from rooftops runs through gutter systems into downspouts to direct water away from buildings. This stormwater may flow onto paved surfaces or be piped directly into sewer systems, which is harmful to local waterways. **Downspout disconnection** redirects water away from these impervious areas into lawns, gardens, or a rain barrel to allow for slower absorption into the ground.

BENEFITS

- **Low Maintenance:** Disconnection can be a low-maintenance option to help move water away from building foundations and allow it to soak into the ground. Seasonally monitor roof gutters and downspouts to clear out any debris and ensure they continue to convey stormwater.
- **Low Cost:** Disconnecting your downspout can also save you money on your water bill if you direct the water into a garden or a rain barrel for later use.
- **Natural Solution:** Directing water onto a lawn or garden area both filters the water naturally and replenishes the water table.
- **Reduce Runoff Volume:** Stormwater that is not absorbed into the ground is forcefully channeled through sewer systems into our local streams and rivers, causing erosion and turbulence that impairs the waterway ecosystem. Redirecting your downspout into vegetated areas reduces and slows the water entering sewer systems.
- **Keeps Pollutants Out:** Directing water flow across planted surfaces instead of paved areas, slows it down, reducing the amount of pollutants carried into streams and rivers.

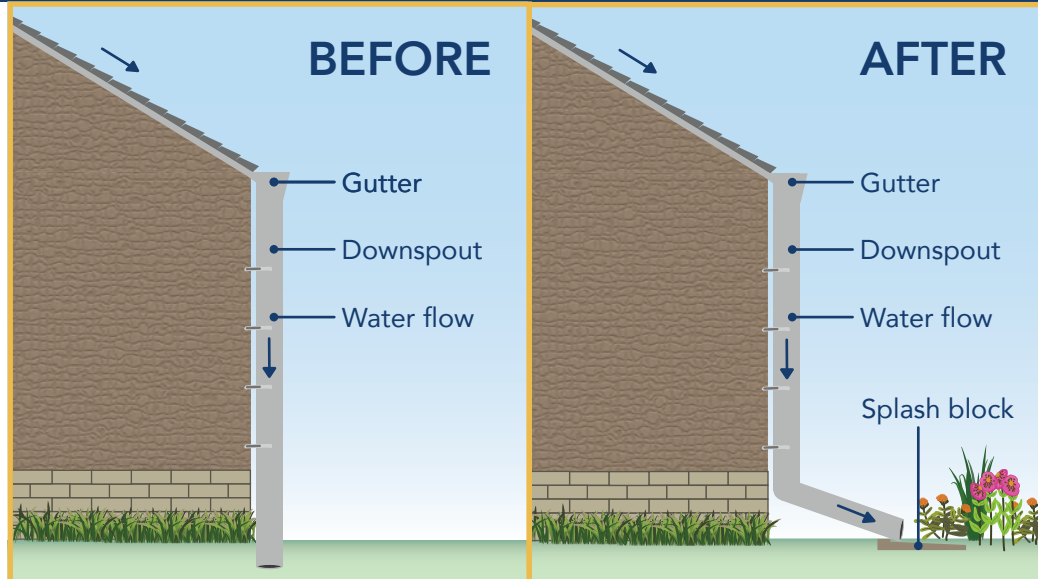


DOUBLE CHECK BEFORE YOU DISCONNECT!

- Check with your municipality to make sure your downspouts can be disconnected
- Observe your site. Make sure you are far enough away from neighbors and have enough pervious area on your property for water to flow.
- Make a plan. Decide if you will disconnect and harvest your water or let it drain onto a pervious surface area on your property.
- The ground area must be at least 10% of the roof area that drains to the downspout you are disconnecting. For example, to drain 500 square feet of rooftop, there should be at least 50 square feet of landscape.

BEFORE AND AFTER DOWNSPOUT DISCONNECT

In the “before” graphic, the downspout is connected to the sewer system. In the “after” graphic, the downspout is disconnected from the sewer system and diverted into the yard or a garden.



DISCONNECTING DOWNSPOUTS, CONNECTING A COMMUNITY



In 2018, the Alliance partnered with Richmond Public Schools, engineers, landscape designers, and artists to create a rainwater harvesting sculpture at Dogwood (formerly Binford) Middle School. The system is a series of five troughs, located behind the clouds, that slowly drain rainwater into the garden bed below. When not raining, teachers can still activate the system for demonstration with a garden hose. It is the perfect combination of science, art, and environmental education. In addition to this creative downspout disconnect system, the school also installed a permeable pavement entrance and two unique labyrinth walking paths made with Virginia native plants.

SOURCES

1. This Old House: thisoldhouse.com/gutters/21014888/how-to-size-gutters-and-downspouts

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