

Non-Point Source Pollution in Our Neighborhood: What is it, why does it matter, and what can I do about it?

By Allison Kohler, NJ AmeriCorps Watershed Ambassador to West Amwell, 2012

When I ask students about pollution and where pollution comes from, they often list things like factories, smoke from cars, or nuclear waste. While these things can all contribute to pollution in our environment, they are not the primary source of pollutants in our area. Non-point source pollution, or what we call “people pollution”, is the cause of most pollution in our water bodies in New Jersey and comes from a variety of sources. All of those sources start with **our choices** in our everyday lives.

If we lived in untouched wilderness, all of the rainfall that fell in our area would ideally enter the soil and from there either enter the groundwater aquifers or bubble up at the headwaters of a stream. Because we live in developed areas (even if only somewhat developed), much of the rain that falls around us does not enter the soil but instead runs off the land. This run-off water or stormwater enters storm drains (those grates near the curb on roads) that flow into local streams. This is a good thing—it prevents flooding on roads and in our homes—but that run-off can also pick up pollutants on its way to the storm drain. The water that enters storm drains is not filtered or cleaned in any way but goes directly to local water bodies. These pollutants carried by the stormwater come from a number of different places and people. This is non-point source pollution.

Some of the main culprits that run-off picks up on the way to the stream are fertilizers, pesticides, motor oil/other car fluid leaks, pet waste, and eroded soil. Each of these things has some negative effect on the water body it enters. Fertilizers and waste cause excess nutrients in water bodies, which in turn cause excess algae. When the algae dies, its decomposition uses large amounts of oxygen that is dissolved in the water, which kills fish and other stream life that breathe dissolved oxygen through their gills. Pesticides and car fluids are often toxic to stream life. Even in small doses, these toxins can eventually affect the fish, mammals, and birds that eat smaller stream life. Eroded soils that enter the water cause muddy water that makes breathing difficult for stream creatures (imagine trying to breathe in a smoke-filled room) and builds up on the stream bottom, which reduces habitat for those creatures.

The good thing about non-point source pollution is that since we all contribute to it, we can all help stop it. There are easy things that each of us can do to prevent these pollutants from contaminating our streams, lakes, and rivers. If you must apply fertilizers or pesticides, use the smallest amount you can and always apply at least 2 days before it rains to allow the chemicals to absorb instead of washing away with the rainfall. Promptly fix leaking car fluids. Always clean up after your pets (and make sure that the bagged waste gets properly disposed of—plastic bags full of poop are pollution, too). Plant native plants and trees to avoid erosion, or use silt fencing if you are doing a construction project that requires you to leave bare soil

exposed. Never litter, and never put anything directly in a storm drain. Encourage your children to do the same.

If we all work together to reduce non-point source pollution, we can make a huge difference in our streams, rivers, lakes, and ocean now and in years to come!