

Stormwater nutrient pollution major contributing factor in algae blooms in lakes and bays

STORMWATER & WATERSHEDS



Why Does Stormwater Cause A Negative Effect On Our Watersheds?

Have you ever wondered just how much industrial and commercial activities affect our natural environment? Stormwater plays a key role in the connection between the two, washing the harmful substances created by industrial sites across our watersheds and into water bodies on a daily basis.



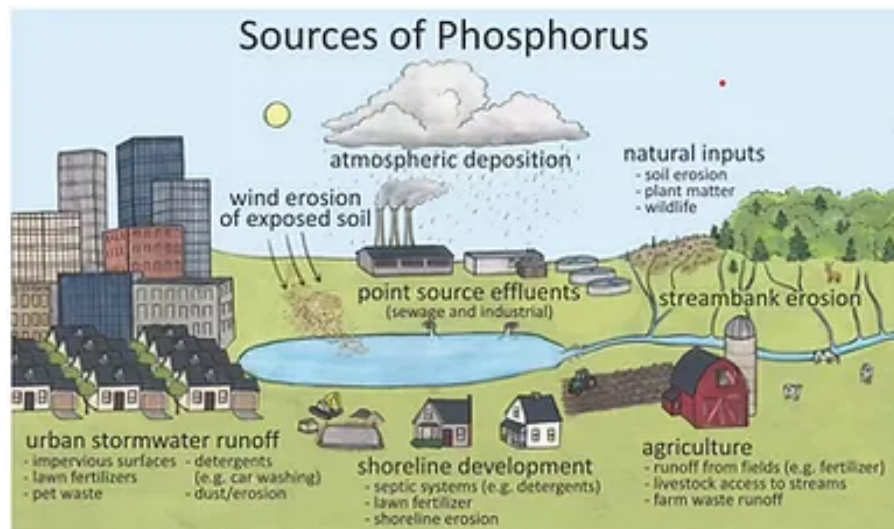
Watersheds - areas of land that drain into lakes, rivers and other water bodies - are often disturbed by the business activities we carry out in our environment. But why in such an environmentally conscious world is this still happening? Can we work harder to reduce our impact on the land?

And how can we both protect our precious water moving forwards, and restore our entire ecosystem back to full health?

Stormwater - Is It Just Water Created By Storms?

Although stormwater is generally harmless surface water caused by large quantities of rainfall or snow, when it eventually runs off into water bodies its composition may have completely changed.

Stormwater can not only include the rain or snow from a storm, but anything the water carries along with it after it hits the ground. As rain falls and runs across varying surfaces, it can pick up many types of pollutants including sediment from exposed soil, oil and grease from driveways and roads, arsenic, and other harmful chemicals too.



So where do all of the chemicals and pollutants in the ground come from?

Although some can occur naturally in our environment, water run off from commercial sites is a huge part of the picture too.



How Stormwater Becomes Toxic For Aquatic Life

Underground mines, power plants, construction sites, even pecan farms - all impact the chemical composition of the soil in the areas surrounding their sites. Industrial and commercial sites use a considerable amount of trace metals whilst in operation, such as copper, iron, lead and zinc. These metals, plus chemicals and other pollutants created by human activity on these sites, are then ‘shed’ from the land by stormwater runoff and washed away into ponds, streams and other water bodies.



All of these substances are considered toxic to aquatic life. They accumulate in different organs of the fish, and the chemical intoxication also causes alteration of blood components. This makes the fish weak and increases the susceptibility of aquatic organisms to infectious diseases, eventually causing mortality.



Two-thirds of aquatic life is in fact now considered to be endangered, due to the ways in which we carelessly dispose of waste and other chemicals.

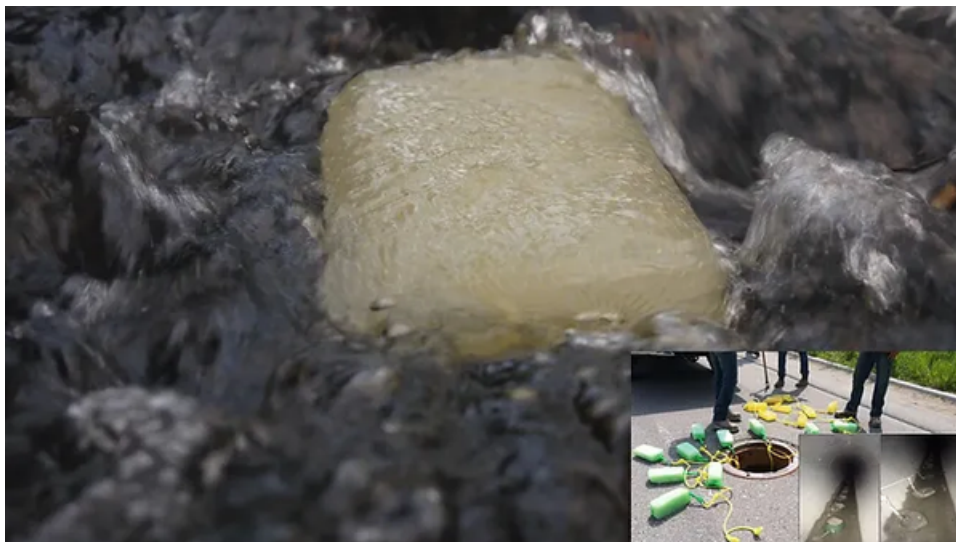
Not only do these chemicals have an adverse effect on the environment and the living organisms within it, but long-term exposure can cause serious risks to human health too.



If our human activity is the primary source of the toxicity created in the chemical composition of urban stormwater runoff, then it should also be our responsibility to reverse the negative impact that we've caused on our environment.

Restoring Our Aquatic Ecosystems

Seventeen years ago, our founder Jerry Hanna realized there was a better way to reduce the toxicological impact of chemicals in watersheds and better protect our environment. This realization led him to design our revolutionary Gel Flocculant Blocks - a natural water clarification solution that safely cleanses the water back to its original healthy composition.



This innovative technology gathers together large volumes of sediment - which contains the metals, chemicals and pollutants that are impacting aquatic life - and accelerates the sediment settling process. This process helps the solids to fall out into a designated area, so that harmless clarified water can be released back into our fish-bearing water bodies.

Erosion control and soil stabilization solutions can also be utilized to facilitate the water clarifying process. One of the solutions we use is Soil Lynx - a granular powder that adheres to soil and protects it from being washed away across our watersheds. The powder also helps retain up to 25% more water within the soil, enhancing germination and revegetation of the land.



The collection and treatment of runoff water can be further enhanced with the use of Treated Silt Collection Mats. The fully biodegradable material captures over 37kg's of sediment per mat and can be seeded and left on site to create an environmental enhancement and avoid any disposal costs.



Treated Jute Soil Stabilization Fabric can be used in the erosion control process as a final polishing agent, inhibiting surface erosion on steeper slopes. The fabric works by preventing finer particles from washing down into water bodies, as well as collecting any particulates already present in the water.

Creating Crystal Clear Waters Once Again

Whilst farming, construction, energy generation and other human industrial activities are all necessary processes for our survival and development, it's important to ensure any negative environmental impact is managed sustainably.

Protecting our watersheds from harmful substances is a key part of this, to prevent polluted stormwater from flowing into rivers, basins and seas. With the proper implementation of erosion control, soil stabilization, and water clarification products, we can cleanse the natural environment of harmful materials and protect it from any further impairment. The result is the restoration of healthy food chains, improvement in the healthy breeding ability of aquatic organisms, and the creation of a thriving ecosystem once again.

