

# GET THE FACTS: ALGAL BLOOMS

## ALGAL BLOOMS

Algal blooms are overgrowths of algae that can cause disruptions to the ecosystem and can be toxic to wildlife and humans. Algae is a general term for plants or plant-like organisms that live in freshwater and oceans.

While algae grows naturally in bodies of water, it grows excessively when it comes in contact with fertilizers; causing an algal bloom. Most algal blooms that occur today are induced by human activity related to fertilizer use. When fertilizer is applied to lawns and agricultural fields it can run off into streams and rivers. This is called **nutrient pollution**, which can also come from livestock farms. This pollution is mainly made up of nitrogen, phosphorus, and carbon. When these elements feed into bodies of water, the nutrient overload causes an explosion in the algae population.

## WHY ARE THEY DANGEROUS?

### Human

Some algal blooms produce toxins that can be deadly to animals and humans. Drinking or swimming in affected water can cause rashes, stomach and liver issues, and most dangerously, harmful neurological effects.

### Ecological

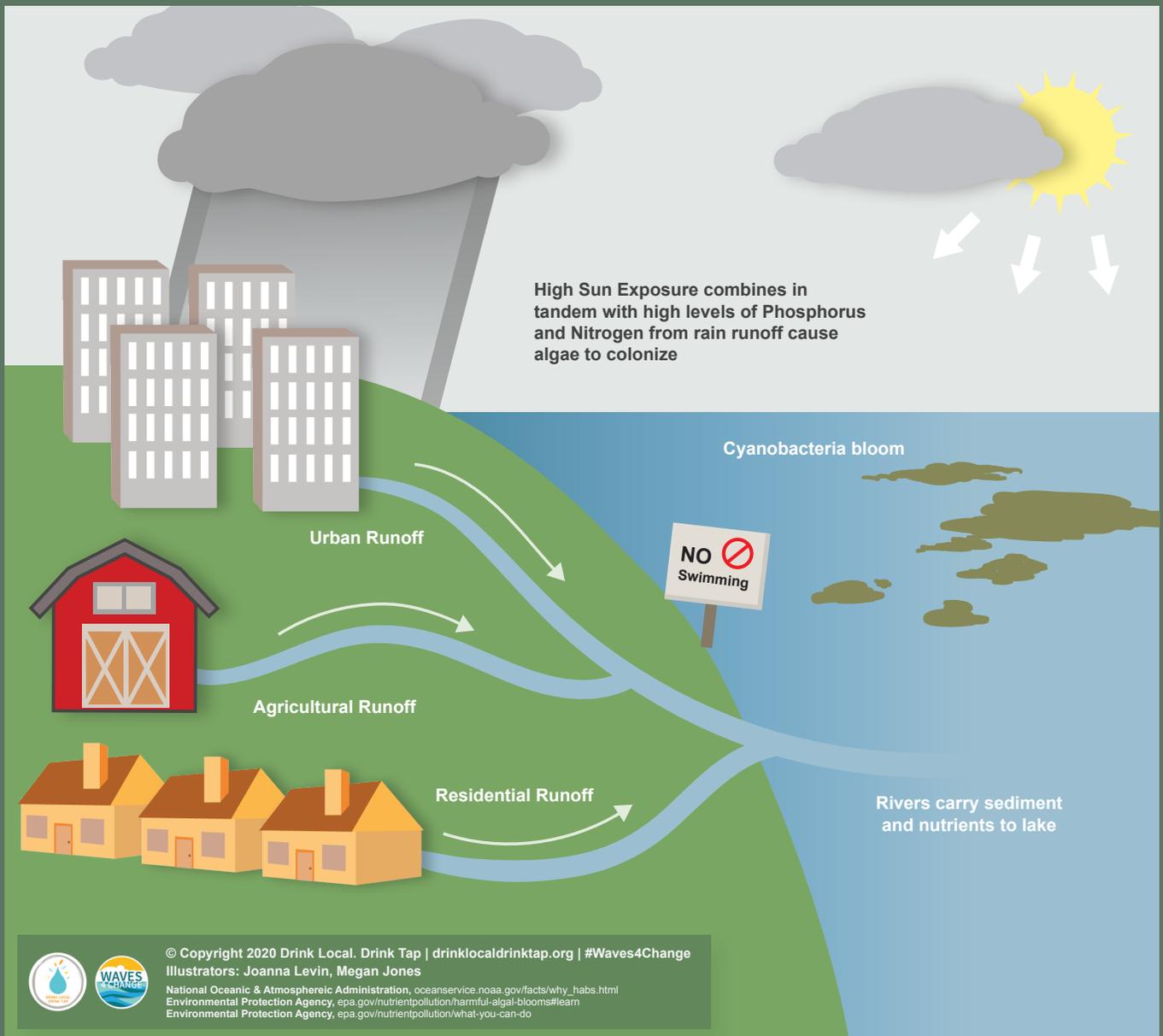
When these blooms of algae die, they decompose and sink to the bottom of the water. This process uses vast quantities of oxygen, and can cause dead zones where no water organisms can live. This is called hypoxia and causes large areas of water to be ecologically barren.

### Economic

Blooms can exponentially increase the cost of treating water for human use, and can shut down entire municipal drinking supplies for days. Waterfronts, tourism and fishing can be greatly impacted, as fish and shellfish catches cannot be consumed during an algae bloom.



Cyanobacteria blooms (blue-green algae) are a frequent occurrence in the Great Lakes, particularly in Lake Erie, Green Bay, and Saginaw Bay. These blooms may cause fish kills and discolored or foul-smelling water, affecting both human and ecosystem health.



## WHAT WE CAN DO

You can choose to support organic farmers who are not using large quantities of fertilizers and chemicals. Monitor your fertilizer use and be aware of when you are spreading fertilizer. If the ground is frozen or if it is going to rain, wait. Pick up your pet's waste. Avoid using any detergents/cleaners with phosphorus that 'go down the drain'. If you have a septic system, be sure to have it regularly inspected and maintained. This prevents waste leaking into nearby bodies of water.

### SOURCES:

EPA - basic algal bloom info  
<https://www.epa.gov/nutrientpollution/harmful-algal-blooms#learn>  
 EPA - what you can do  
<https://www.epa.gov/nutrientpollution/what-you-can-do>  
 NOAA - harmful algal blooms  
[https://oceanservice.noaa.gov/facts/why\\_habs.html](https://oceanservice.noaa.gov/facts/why_habs.html)



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