

STORMWATER RUNOFF

Nitrogen-containing materials which are used throughout the state are transported to rivers and lakes by way of *stormwater runoff*.

Stormwater runoff refers to rain water which is unable to absorb into the ground and instead collects on the surface. Stormwater runoff will either flow to a water source at a lower elevation, or to a manmade catch basin.

Regardless of the path that stormwater takes, it commonly collects nitrogen compounds and other pollutants as it flows over farmlands, paved surfaces, and lawns treated with chemical fertilizers.

The stormwater then deposits high levels of nitrogen into rivers and lakes, causing toxic conditions for fish and other aquatic life.



“Polluted stormwater runoff is the most significant source of water quality problems”



NITROGEN AND STORMWATER POLLUTION



CONNECTICUT DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENTAL PLANNING

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Nutrient pollution occurs when there is an excess of nitrogen and phosphorus

50 out of 50
states are impacted by
nutrient pollution

States have identified about **15,000** water bodies in the US with nutrient-related problems

Reported drinking water violations for nitrates have nearly doubled in the last decade

Source: US EPA

NITROGEN POLLUTION

Nitrogen is a naturally-occurring element which, due to human activities, has become a major concern for water quality.

Common everyday activities have caused nitrogen concentrations in rivers and lakes to reach dangerously high levels. Nitrogen feeds algal blooms, which choke out aquatic life and impact fishing and recreation.

With high levels of nitrogen in the water, fish and other organisms may suffocate under severe conditions.

In Connecticut, all of our major waterbodies and watercourses are effected by nitrogen pollution, with the ultimate discharge point being Long Island Sound.



Source: US EPA

COMMON NITROGEN SOURCES

- Septic systems
- Fertilizer
- Grass clippings/leaves
- Sediment from construction sites
- Erosion

IMPACT ON LONG ISLAND SOUND

Each summer, nitrogen and phosphorus pollution cause oxygen levels in Long Island Sound to fall so drastically that fish cannot survive in certain areas.

Algal blooms stunt the growth of underwater plants, which provide essential habitats for shellfish and other small organisms.

Despite State and Federal regulations, areas of Long Island Sound continue to be inhabitable for aquatic life, largely due to Nitrogen pollution in Connecticut.



WHAT YOU CAN DO

- Limit lawn fertilizer use
 - Check the weather forecast before applying fertilizer – do not apply before a rain storm
 - Use fertilizer only during spring and fall when it can be readily used by plants
 - Never use fertilizer near waterbodies or watercourses
- Do not overwater your lawn
 - Overwatering will spread nitrogen and other nutrients
- Compost grass clippings on your property
- Regularly service septic systems
- Reduce automobile use and idling
 - Nitrogen Oxides (NO_x) due to combustion of fossil fuels pollutes the atmosphere and later falls to water sources as acid rain



Source: US EPA