



Algal Blooms in River Thames

[Source: DTE](#)

A study has revealed that [climate change](#) is increasing the risk of [algal blooms](#) in the [River Thames \(England\)](#) despite an **80% reduction in phosphorus loads** over four decades.

- An **algal bloom** is the **overgrowth of microscopic algae** or algae-like bacteria in **fresh, salt, or brackish waters**.

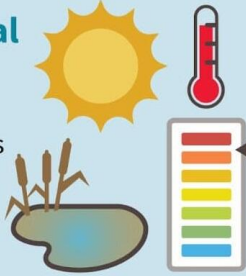
Key Findings:

- **Rising river temperature** is driving the growth of **spring diatom blooms** and **summer cyanobacterial (blue-green algae) blooms**, which **deplete oxygen**, harm aquatic life, and increase drinking water treatment costs.
 - **Algal blooms** also restrict **recreational activities** like fishing and swimming.
- Despite an **80% reduction in phosphorus** since 1985, its concentration remains **above safe limits**, sustaining **algal growth**.
 - **Excess nitrogen and phosphorus block sunlight** and deplete oxygen, threatening marine ecosystems.

Causes of Algae Blooms

Environmental Conditions

- Abundant light
- High temperatures
- High pH levels
- Stagnant water
- Excess nutrients



TOXIC ALGAE BLOOM

Sources of Excess Nutrients

Agriculture:

Fertilizer runoff (nitrogen & phosphorus) and animal waste

Industry:

Chemical discharge and waste

Urban Life:

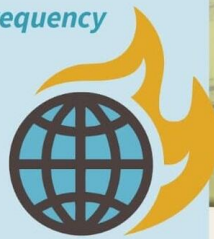
Sewage and waste runoff



Climate Change

Climate change is increasing the frequency and severity of blooms due to:

- Increases in water and air temperature
- Increases in droughts and flooding
- Changes in salinity
- Increased amount of CO₂
- Sea level rise and coastal upswelling



River Thames:

- It is **346 km** long (**Longest in England**, second longest in the UK after **River Severn**).
- It originates from **Thames Head, Gloucestershire**, and drains into the **North Sea via the Thames Estuary**, with **Nore sandbank** at its mouth.
 - **London is on the bank of Thames.**
- It supplies **two-thirds of London's drinking water** and has been a **vital trade route**.



Read More: [Red Tide](#), [Plankton Crash](#)

PDF Refernece URL: <https://www.drishtias.com/printpdf/algal-blooms-in-river-thames>