

What's the problem?

An introduction to water quality
issues in the Lake Rotorua
catchment



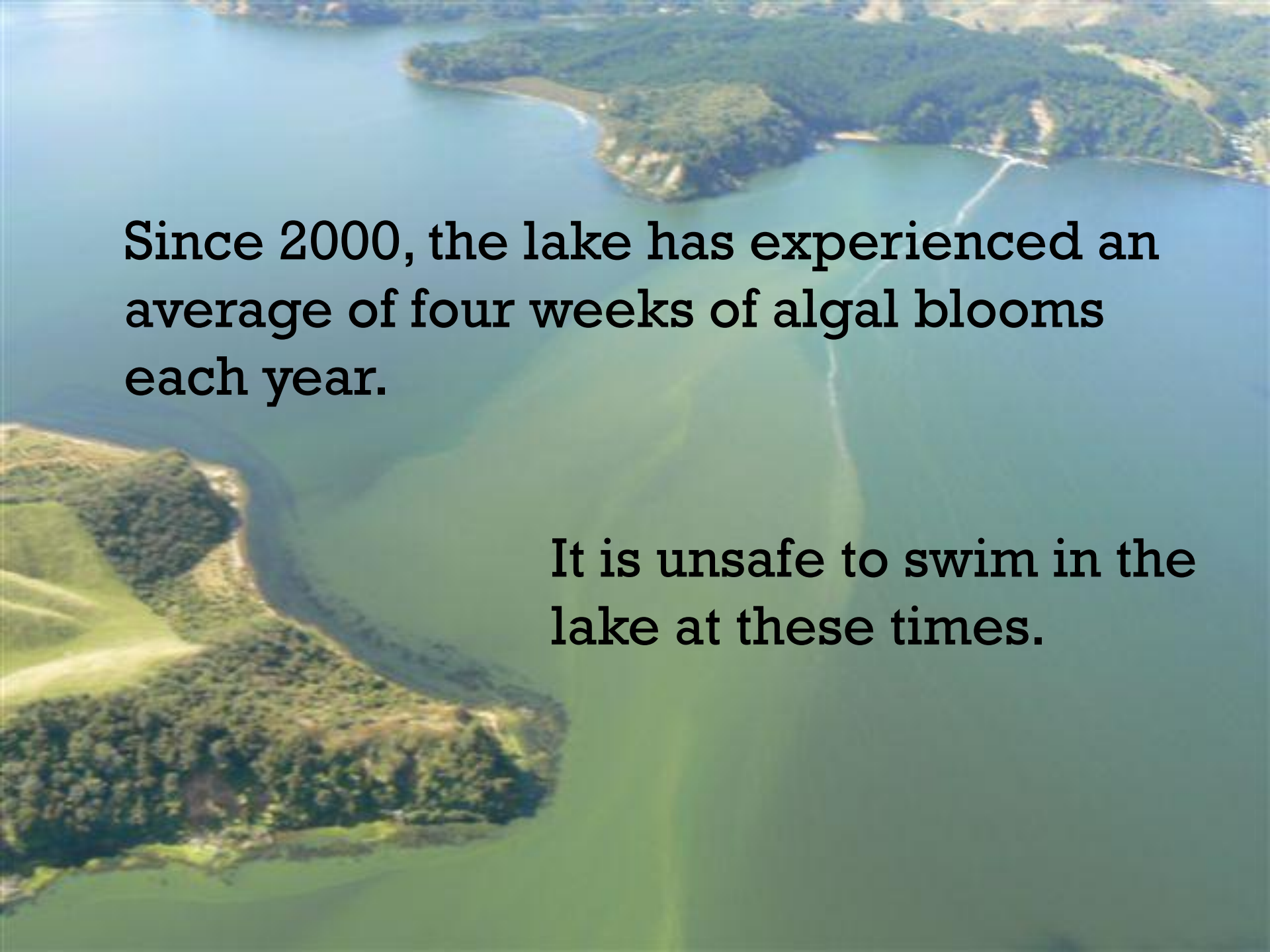
Lake Rotorua is the largest of 12 lakes in the Rotorua district of New Zealand's North Island.

Its catchment covers 507km² of pasture, native forests, exotic forests and urban land.



Lake Rotorua's water quality
has been declining since the 1960s.

Increased nutrients in the water
– primarily nitrogen and phosphorus –
feed unwanted algae.

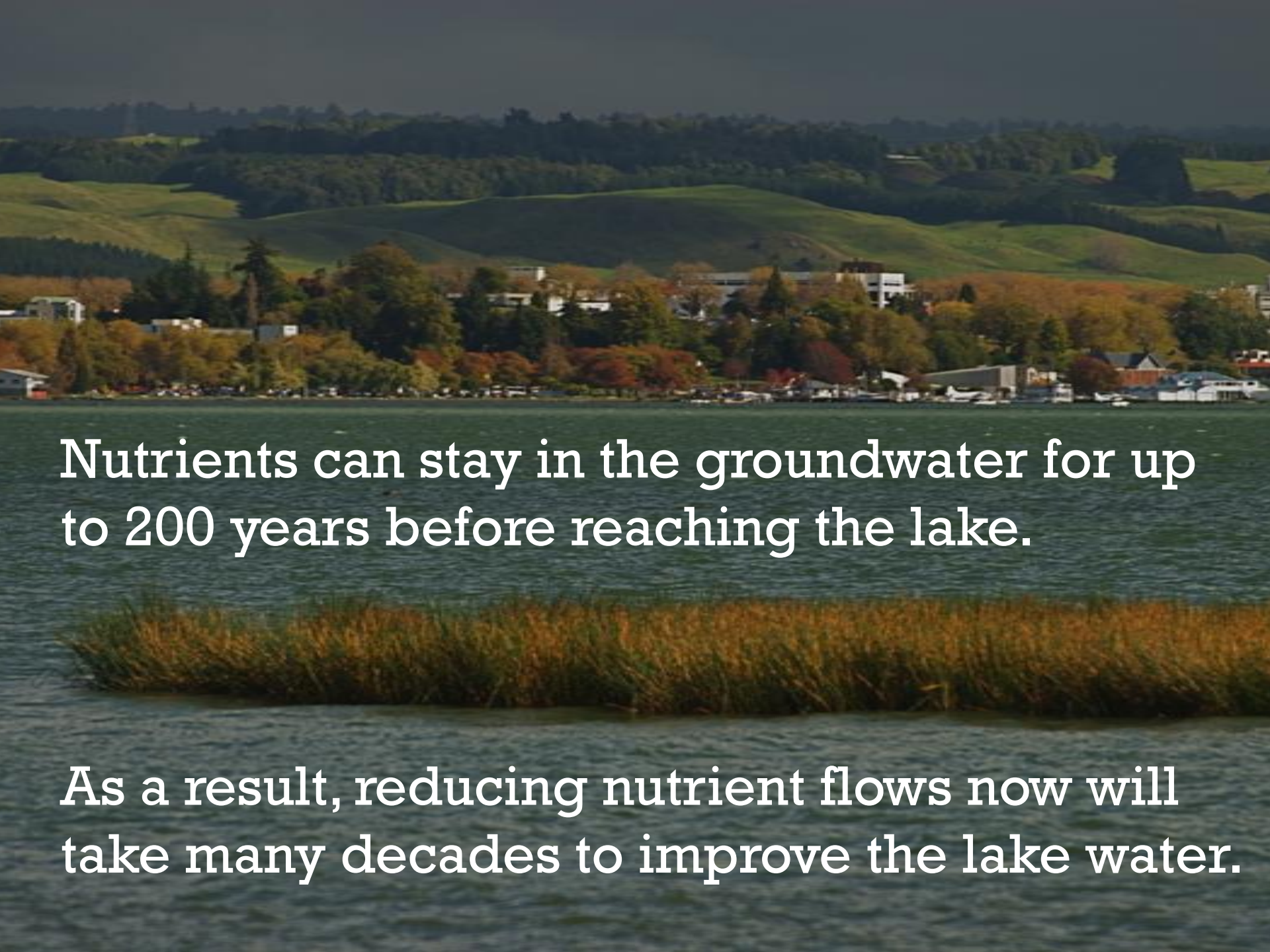


Since 2000, the lake has experienced an average of four weeks of algal blooms each year.

It is unsafe to swim in the lake at these times.



Nutrients enter the lake directly from the land or through the groundwater system.

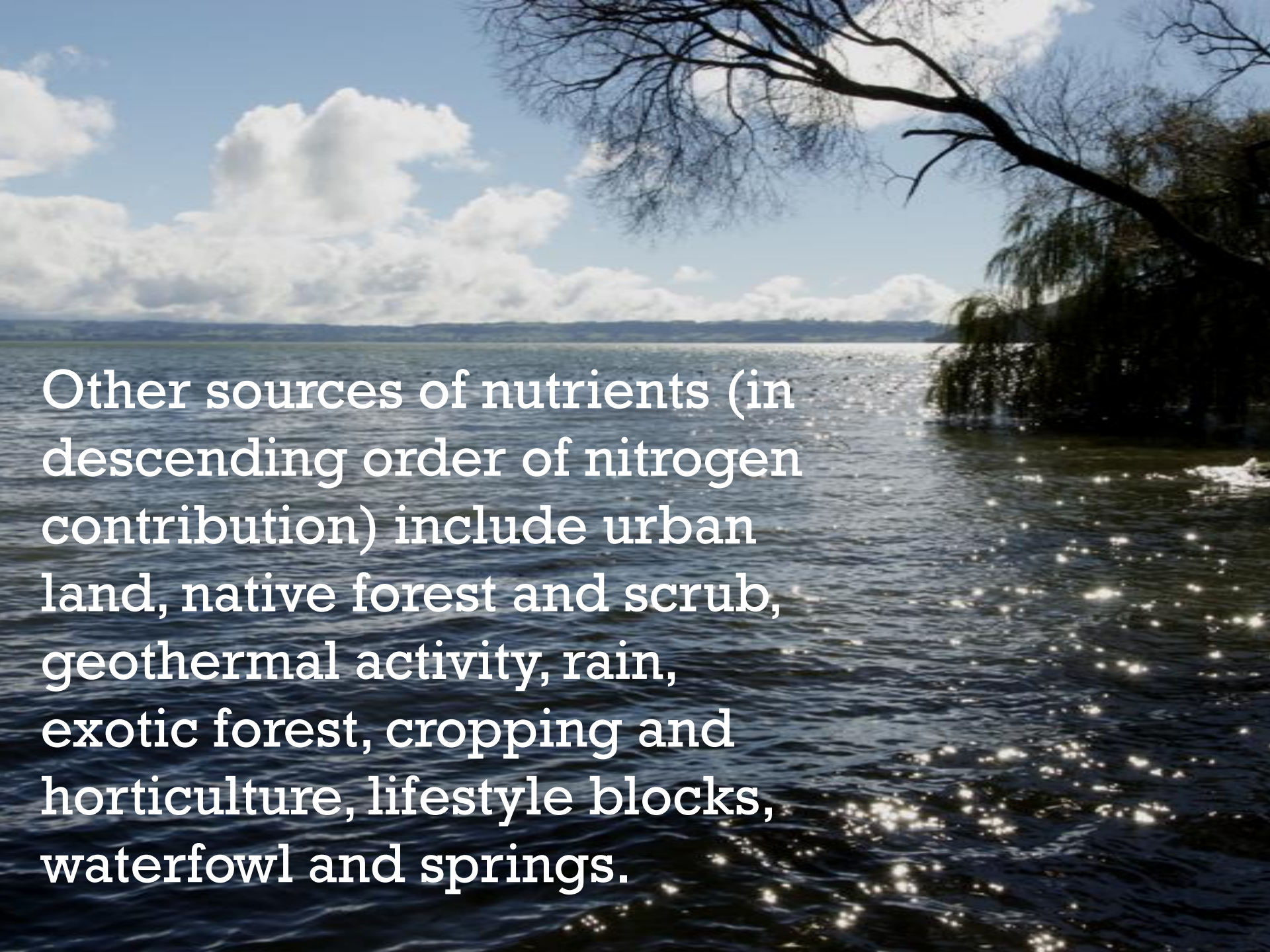


Nutrients can stay in the groundwater for up to 200 years before reaching the lake.

As a result, reducing nutrient flows now will take many decades to improve the lake water.

A large herd of black and white cows is grazing in a lush green field. The cows are scattered across the landscape, some standing and some lying down. The field is vibrant green, and the sky is not visible. The overall scene depicts a typical pastoral farming environment.

At present, pastoral farming is the source of around 70% of total nitrogen and 40% of total phosphorus coming off the land.



Other sources of nutrients (in descending order of nitrogen contribution) include urban land, native forest and scrub, geothermal activity, rain, exotic forest, cropping and horticulture, lifestyle blocks, waterfowl and springs.



**We need to act now to preserve the lake
for future generations.**



The information in this slideshow was collated from publications by Environment Bay of Plenty. See their website for details:
www.ebop.govt.nz.