



Nitrogen dioxide seasonal trends, 2011-2020

Title	Nitrogen dioxide seasonal trends, 2011-2020
Publisher	New Zealand's Environment Reporting Series: The Ministry for the Environment and Statistics New Zealand
Description	<p>Nitrogen dioxide (NO₂) is a gas that is harmful to human health (United States Environmental Protection Agency (US EPA), 2021), ecosystems, and plants (US EPA, 2008). It can be emitted directly into the air but is often formed as a secondary pollutant when nitric oxide (NO) emissions react with other chemicals. It also contributes to the formation of secondary particulate matter (PM) and ozone, which have their own health impacts. In New Zealand, motor vehicles are the main human-made source of nitrogen oxides (NO_x) the collective term for NO₂ and NO. Human exposure to high nitrogen dioxide concentrations causes inflammation of the airways and respiratory problems and can trigger asthma attacks. Nitrogen dioxide can cause leaf injury in plants exposed to high levels. It also contributes to forming secondary particulate matter and ozone, which have their own health impacts. Nitrogen dioxide is a gas primarily formed through burning fossil fuels, mainly by motor vehicles (particularly diesel), but also from industrial emissions. Because nitrogen dioxide concentrations are closely associated with vehicle emissions, it can be used as a proxy for other motor-vehicle pollutants such as benzene, carbon dioxide, and carbon monoxide. This dataset reports on the seasonal trends assessed for the period 2011-2020. More information on this dataset and how it relates to our environmental reporting indicators and topics can be found in the attached data quality pdf.</p>
Source	Auckland Council, Environment Canterbury and Greater Wellington Regional Council
Rights	Creative Commons Attribution 4.0 New Zealand
Rights	Attribution 4.0 International
Rights	https://creativecommons.org/licenses/by/4.0/
Coverage	Christchurch, Wellington and Auckland Region
Identifier	https://data.mfe.govt.nz/table/106247-nitrogen-dioxide-seasonal-trends-2011-2020/
Identifier	OA2021/20
Type	Tabular Dataset
Language	eng-nz
Subject	Environmental reporting series: Our Air 2021