

# Carbon dioxide concentration infographic

## Carbon dioxide concentration infographic, 1973–2024

This data is collected from New Zealand's National Institute of Water and Atmospheric Research (NIWA) clean air station at Baring Head/Ōrua-pouanui, located on the Wellington coast overlooking Cook Strait. The station has been operating since 1972 and has the longest-running continuous CO<sub>2</sub> measurements in the Southern Hemisphere.

### About the data

- This data uses the World Meteorological Organisation (WMO) X2019 scale. Note the Institute's previous graph (2021) used the WMO X2007 scale, so some data points have changed by a small amount.
- The data used is the monthly average steady interval (baseline) CO<sub>2</sub> parts per million (ppm) between 1972 and 2024 (provisional).
- Baseline data is collected in southerly wind conditions, so occasionally months have no baseline data; this is shown as gaps in the lines of the graph.
- For comparison, the pre-industrial level of CO<sub>2</sub> in the atmosphere was 280ppm.

NIWA has provided the McGuinness Institute with this information. For more information on this data, refer to Stephens, B.B., Brailsford, G.W., Gomez, A.J., Riedel, K., Mikaloff Fletcher, S.E., Nichol, S. and Manning, M. (2013). Analysis of a 39-year continuous atmospheric CO<sub>2</sub> record from Baring Head, New Zealand. *Biogeosciences*, [online] 10(4), pp.2683–2697. Available at: [www.biogeosciences.net/10/2683/2013/](http://www.biogeosciences.net/10/2683/2013/) [Accessed 24 Jan. 2025].

Thank you to NIWA for recording and sharing this information.