

**APPLICATION FOR DOCUMENTS UNDER THE (**  
**FREEDOM OF INFORMATION ACT 1982**

**EXHIBIT NOTE**

This is the annexure marked "TM4"  
referred to in the affidavit of TIM DAVID  
MAHOOD

Dear Bureau of Meteorology Freedom of Information Act Officer,

Bureau of Meteorology, GPO Box 1289, Melbourne, Vic 3001

sworn at AUCKLAND  
before me:

Name of applicant:

\_\_\_\_\_  
A Solicitor of the High Court of New Zealand

Mr [REDACTED] .....

[REDACTED] [REDACTED] [REDACTED], ACT 2913.....

Phone no: [REDACTED] (Work) - [REDACTED] (Home)

Fax no. of applicant: [REDACTED] .....

Email address; [REDACTED] .....

In 2010 the National Institute of Water & Atmospheric Research Ltd in New Zealand (NIWA) commissioned the Australian Bureau of Meteorology (BoM) to conduct a "Peer Review" of the NIWA "Seven-station" series: Temperature Data for Auckland, Wellington, Dunedin, Nelson, Masterton and Lincoln ("Christchurch").

On the 14th December 2010 Dr Neil Plummer, Acting Assistant Director (Climate Information Services), Bureau of Meteorology wrote to Dr David Wratt, Chief Scientist Climate, National Institute of Water & Atmospheric Research Ltd. *Please note the attached one page letter.*

**I am applying under the COMMONWEALTH FREEDOM OF INFORMATION ACT 1982 for the following items - the Thirty dollar (\$30.00) fee is attached.**

[1] The completed Peer Review of the NIWA "Seven-station" series: Temperature Data for Auckland, Wellington, Dunedin, Nelson, Masterton and Lincoln ("Christchurch") as carried out by the Bureau of Meteorology (BoM) referred to in the attached copy letter to Dr David Wratt, Chief Scientist Climate, National Institute of Water & Atmospheric Research Ltd from Neil Plummer, Acting Assistant Director (Climate Information Services), Bureau of Meteorology dated 14/12/2010 - as conveyed to NIWA.

[2] All documentation relating in any way to the Peer Review of the NIWA "Seven-station" series: Temperature Data for Auckland, Wellington, Dunedin, Nelson, Masterton and Lincoln ("Christchurch") carried out by the Bureau of Meteorology (BoM) referred to in the attached copy letter to Dr David Wratt, Chief Scientist Climate, National Institute of Water & Atmospheric Research Ltd from Neil Plummer, Acting Assistant Director (Climate Information Services), Bureau of Meteorology dated 14/12/2010. This should include all correspondence between the BoM and NIWA, communications within the BoM on the NIWA "Peer Review" and communications to and from any outside organization or person, on the subject of the NIWA "Peer Review".



Including but not limited to digital data on BoM network or workstation hard disk drives, digital data on optical CD or DVD media, digital data on memory stick media, faxes, emails, email attachments, reports, papers, documents, letters, memos and texts. Specifically including but not limited to:

[3] The full "...range of supporting evidence provided.." including copies provided by NIWA of published papers and extracts from University theses.

[4] BoM assessments of the NIWA papers for "...scientific error, internal consistency, clarity and scientific logic."

[5] All station reports for the Auckland, Wellington, Dunedin, Nelson, Lincoln ('Christchurch'), Masterton and related or neighbouring sites as provided by NIWA to the Australian Bureau of Meteorology - in IBM compatible digital form.

[6] The data and methodology and any other evidence provided by NIWA to the Bureau of Meteorology relating to the reports including whatever evidence was provided by NIWA supporting the homogeneity corrections applied to the temperature record to create the 'seven station' series.

[7] All independent analyses "...appropriate to the aims of the review.." which were performed by the BoM, or any person or organization contacted by the BoM, whether finally included in the "Peer Review" or discarded.

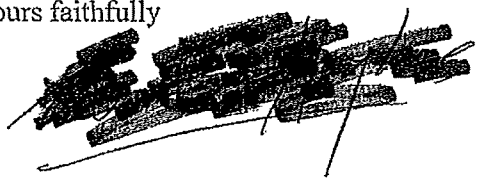
[8] Include all instances where in the opinion of Dr Plummer or anybody else outside NIWA - "...the evidence provided by NIWA.." does not support the homogeneity corrections that have been applied to the temperature record to create the 'seven station' series.

[9] If not covered above - any evidence provided by NIWA to the Australian Bureau of Meteorology relating to reason or reasons for adjustments to the raw/composite station series.

[10] All documentation containing notes by the BoM or related parties relating to the "...appropriateness of the methods used to undertake the 'seven station' temperature analysis.."

[11] Invoices, statements, bills - from the BoM to NIWA relating to the "Peer Review of the NIWA "Seven-station" series: Temperature Data for Auckland, Wellington, Dunedin, Nelson, Masterton and Lincoln ("Christchurch") by the Bureau of Meteorology.." - and records of payments by NIWA for this "Peer Review".

Yours faithfully



Date: 18<sup>th</sup> February 2011





**Australian Government**  
**Bureau of Meteorology**

HEAD OFFICE  
Bureau of Meteorology  
GPO Box 1289 Melbourne VIC 3001 Australia

Dr David Wratt  
Chief Scientist Climate  
National Institute of Water & Atmospheric Research Ltd  
Wellington,  
New Zealand

**Peer Review of the NIWA "Seven-station" series: Temperature Data for Auckland,  
Wellington, Dunedin, Nelson, Masterton and Lincoln ("Christchurch")**  
Dear David,

This Bureau of Meteorology peer review of the National Institute of Water & Atmospheric Research Ltd (NIWA) "seven station" series is a scientific review of the station reports for the Auckland, Wellington, Dunedin, Nelson, Lincoln ('Christchurch') and Masterton sites as provided by NIWA to the Australian Bureau of Meteorology. In this context 'scientific review' means a critical inspection/examination of the station reports taking into account the range of supporting evidence provided. The ideas, methods and conclusions of the papers are assessed for scientific error, internal consistency, clarity and scientific logic.

The data and methodology provided in the reports from NIWA are taken as an accurate representation of the actual analyses undertaken. We are not in a position to question all of the underlying analyses and data that have contributed to the final results, such as methods used to compile raw data taken at stations. We do, however, perform some independent analyses as appropriate to the aims of the review as outlined above.

The review does not constitute a reanalysis of the New Zealand 'seven station' temperature record. Such a reanalysis would be required to independently determine the sensitivity of, for example, New Zealand temperature trends to the choice of the underlying network, or the analysis methodology. Such a task would require full access to the raw and modified temperature data and metadata, and would be a major scientific undertaking. As such, the review will constrain itself to comment on the appropriateness of the methods used to undertake the 'seven station' temperature analysis, in accordance with the level of the information supplied.

In general, the evidence provided by NIWA supports the homogeneity corrections that have been applied to the temperature record to create the 'seven station' series. The scientific papers clearly report on major issues which have been identified in the metadata and past scientific literature. It is also clear that a number of significant adjustments (as identified by NIWA in the reports) are clearly required for the raw/composite station series owing to inhomogeneities which would otherwise artificially bias results.

Yours sincerely,

Neil Plummer  
Acting Assistant Director (Climate Information Services)  
14/12/2010