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Mr Tim Mahood
General Counsel
National Institute of Water & Atmospheric Research
BY EMAIL: t.mahood@niwa.co.nz

Dear Mr Mahood

Official Information Act request relating to climate information

Thank you for your letter of 29 January responding to our several requests for official information. We appreciate your statement that NIWA is prepared to exceed its minimum statutory obligation so as to create new information, as well as providing copies of data already held in your records.

As will be apparent from our letter of 21 December, as well as the attached paper "Are We Feeling Warmer Yet?", the core of our request is the "Official Temperature Record" captured in the NIWA-published graph captioned –

Figure 7: Mean annual temperature over New Zealand, from 1853 to 2008 inclusive, based on between 2 (from 1853) and 7 (from 1908) long-term station records.

The Temperature Record ought not to be new information requiring to be "created". It is no less than the anchor document for NIWA's climate advice to Central, Regional and Local Governments as well as to commerce and industry. As all temperature predictions are based on projections of past trends (along with assumptions) all NIWA's advice regarding likely future climatic conditions are similarly based on this key document. NIWA has recently purchased an expensive computer model for the very purpose of eliciting additional insights from the Temperature Record.

The Temperature Record comprises the marriage of two other documents - Raw Data from temperature readings (published on NIWA's website) and the Schedule of Adjustments.

If and when the Official Temperature Record is called in question in any Court proceedings, including enforcement of the Emissions Trading Scheme, evidence will be required as to both the provenance (details of compilation and amendments) and the veracity (justifications for amendments) of the Record. These requirements will need to be met by the Schedule of Adjustments - which should be readily available on NIWA's file.

Legal requirements apart, I am informed that it is standard scientific practice, when compiling and publishing any series of measurements, to keep a transparent record of any post-measurement adjustments introduced by the compiler.

If the Official Temperature Record has been adjusted on unknown dates for unknown reasons, its probative value is little above that of guesswork. In such a case, the only appropriate action would be reversion to the raw data record, perhaps accompanied by a statement of any known issues.

We make no apology for belabouring the importance of the Temperature Record, because the missing Schedule of Adjustments goes to the very root of New Zealand climate science. Some of our members have found it very difficult to believe that NIWA has not kept any Schedule of Adjustments, or has allowed it to be lost or destroyed.

Turning now to the 6 questions:

1. We read this answer as stating that all the original observations held by NIWA are recorded in the website climate database, and that there are no other contemporary observations/comments which might help explain the subsequent adjustments. We would have expected the reasoning for selection of these 7 stations would have been documented as part of the Record.

You have referred to a paper that discusses air and sea temperature reports by passing ships. We understand that the margin of error for such informal records is approximately plus-or-minus 2°C, so that a century-long result of 0.7°C is essentially meaningless. Please confirm that this source was not relied upon when compiling the Schedule of Adjustments.

2. Some of our members have read the papers you mention, and report that details of the dates and justifications for adjustments to the Auckland, Masterton, Nelson, Hokitika, and Lincoln stations are not provided. Is it the fact that NIWA has no knowledge of its own regarding the accuracy of the NIWA adjustments to these stations (which converted flat raw data into an upward trend)?
3. We read the following sentence - "*NIWA staff are compiling some further material on the reasons for the station data adjustments, including dates of site changes...*" - as suggesting that NIWA is belatedly engaged in constructing a Schedule of Adjustments. This reading is taken much further by a NIWA press interview in today's issue of the *Weekend Herald*: "*Two people in NIWA's climate group have prepared a full set of documents including all the data from climate stations and a full explanation of the adjustments made to the records, which should be available online in about a week*".

If the reported statement is true, then NIWA has obviously (and it seems deliberately) breached its obligations under the Official Information Act to provide me with copies of these documents. Even if the *Herald* report is mistaken, NIWA clearly has extensive records which staff are compiling into a Schedule of Adjustments, and I am entitled to copies of those records.

4. Your answer seems to suggest that NIWA has no idea whether the Official Temperature Record, as represented in graphic format, is accurate or not. This is more than surprising, so I will break the question down into its components: Does NIWA believe the graph is appropriately accurate? What recognized measure of accuracy does NIWA apply (eg margin of error, percentage confidence, etc)? What level of accuracy does the graph achieve, by that measure?
5. Our request letter pointed out that all the stations in the 11-station dataset had been automated, as we understand that it is standard practice to apply a downward adjustment when automation occurs. This is because the manual door-opening, which has a cooling effect, has been discontinued. Is there some reason, as yet undisclosed, why such adjustments were not made in any of these 11 cases?
6. We were surprised to learn that all your correspondence with Hadley-CRU, NASA and NOAA, is undertaken on a confidential basis, and that these bodies might cut you from their mailing lists if the content was revealed. All of the participants are taxpayer-funded agencies of state engaged in scientific research, all are subject to Freedom of Information statutes, and it seems quite perverse that public science should be practised in strict secrecy. We would like to invite you to enquire of your correspondents whether they do, in the circumstances, have any real objection to the correspondence being disclosed.

We will await your prompt reply before deciding upon a complaint to the Ombudsman under S 28(3) of the Act.

In closing, we reiterate our dismay that NIWA has chosen to conceal the Schedule of Adjustments described in the *Herald*. In that same report, NIWA's Dr Renwick is quoted as saying - "there is a real issue of trust here". Quite so. There was a real issue of trust when NIWA would not respond to our reasonable queries, and evaded Parliamentary Questions. A very serious issue arises if NIWA cannot even be trusted to comply with the law of the land, as set out in the Official Information Act.



Terry Dunleavy MBE, JP
Honorary Secretary