

BEFORE THE ENVIRONMENTAL PROTECTION AUTHORITY

IN THE MATTER of the Hazardous Substances and New Organisms Act 1996
(the Act)

AND

IN THE MATTER of the Decision-Making Committee with delegated responsibility
for powers and functions related to the hearing and deciding of
applications under the Act to reassess the approval for methyl
bromide.

THE DECISION-MAKING Tipene Wilson (Chair)
COMMITTEE Derek Belton,
Ngairé Phillips

**JOINT STATEMENT OF EXPERTS IN THE FIELD OF AIR
DISPERSION MODELLING**

Thursday June 18, 2020

PARTICIPANTS: David Sullivan, Aleks Todoroski, Jennifer Barclay, Cathy
Nieuwenhuijsen

DATE AND TIME OF CONFERENCING: Thursday 18 June, 2020 10am

INTRODUCTION

1. This signed joint witness statement is provided in response to the Decision-Making Committee's Directions and Minute WGT014.
2. This joint witness statement relates to the conferencing topic of Air Concentration Dispersion Modelling.
3. Expert conferencing of the air dispersion modelling experts took place by videoconference on 18 June 2020.
4. The conference was facilitated by Bill Rainey of FairWay Resolution Ltd, and was attended by: David Sullivan, Aleks Todoroski, Jennifer Barclay, Cathy Nieuwenhuijsen

CODE OF CONDUCT AND HEARING PROCEDURES

5. We confirm that we have read the Environment Court's Code of Conduct 2014 and agree to comply with it. We confirm that the issues addressed in this Joint Statement are within our area of expertise.
6. We confirm that we are familiar with the Hearing Procedures issued by the EPA to the extent that they relate to this expert conferencing.

SCOPE OF STATEMENT

7. This statement relates to the direction and minute WGT014 of the DMC and responds to the questions of paragraph nine of the direction. The questions are repeated in italics and followed by the Experts' answers in bold type.

7.1. In the Joint Statement of 19 March 2020, the experts "agree[d] that using a 2018 and 2019 CALMET data set would be useful to match up with Genera's operational records and recent ambient monitoring. This is necessary for robust model validation and to cover a 5-year period that the experts consider is best practice for the circumstances of this project." During a recent meeting to discuss the provision of the CALMET dataset, Jenny Barclay (Atmospheric Science Global, ASG; the expert nominated by BOPRC) indicated that although useful this dataset is not required for Sullivans to be able to construct and validate a scientifically defensible revised model. Please can the experts indicate:

- i. whether such an updated CALMET dataset is a necessary requirement for the updated modelling, or would provide for a significantly improved model and subsequent risk assessment*

The Experts agree that an updated CALMET data set is not necessary for the updated modelling. They understand that the updated CALPUFF modelling would incorporate actual Port fumigation operational variability paired with sufficient meteorological variability within the three-year data set. Whilst the Experts previously stated that the 2018 and 2019 period was necessary, given the updated CALPUFF modelling approach, an adequately robust model evaluation can be made using the existing three-year data set (2014-2016).

- ii. *whether the results of the updated modelling would be valid without such an updated CALMET dataset*

Yes.

- iii. *what level of uncertainty would result from using the existing 2014-16 CALMET dataset compared to a new (2017-)2018-19 CALMET dataset?*

The Experts consider that this would result in an insignificant level of uncertainty.

7.2. *In the same Joint Statement, the experts “agree[d] that the Bay of Plenty Regional Council is well placed to undertake [the development of the 2018-19 dataset using the ASG methods], given that they were responsible for the 2014 – 2016 data.” We now understand that this was meant to say that ASG would develop the updated CALMET dataset. Please can the experts:*

- i. *indicate whether this updated understanding that you agreed that ASG was the best placed to prepare the CALMET dataset is correct*
- ii. *indicate whether it is suitable for Sullivans to prepare this dataset instead of ASG?*
- iii. *provide, for clarity, the reference material describing the approach to be followed to create the CALMET dataset?*

In respect to the above three questions, the Experts agree that the extra two-year data set is not necessary in this case. However, if such a data set were to be created then the methods and quality should be commensurate with the ASG three-year data set, and publicly available for full independent evaluation and use. Whilst ASG is best placed to prepare the CALMET data set, any Expert on the panel would be qualified to create a CALMET data set of similar quality.

Name of each expert

[Each expert to sign]

David Sullivan



Aleks Todoroski



Jennifer Barclay

A handwritten signature in black ink, appearing to read "Jennifer Barclay". The signature is written in a cursive style with a large, looping initial "J".

Cathy Nieuwenhuijsen

A handwritten signature in black ink, appearing to read "Cathy Nieuwenhuijsen". The signature is written in a cursive style with a large, looping initial "C".