

1. **Executive Summary**

- 1.1. The 18 May 2005 event was an extreme case of severe convection. The cause seems to have been a combination of abnormally warm, moist air, very unstable conditions and, most importantly, a near stationary convergence line along the coastal fringe from Eastern Coromandel to Bay of Plenty.
- 1.2. My evidence presents peak rainfall intensities in appended tables. The significant rainfall had return periods between 200 and 500 years on known extreme value statistics but could be more frequent as they are perhaps part of a different distribution of storms that we know little about. In my professional opinion it is wisest to regard them as around 12 to 18 percent greater than the 1% AEP rainfall intensities.
- 1.3. The impact of global warming includes both increases in sea levels and rainfall intensities. The increase in rain intensities are forecast across four alternative futures in which scenarios of human activities result in different concentrations of greenhouse gases in the atmosphere, known as Representative Concentration Pathways (RCPs). It is clear ongoing climate change effects will increase the frequency of rainfall events such as that which occurred at Matatā on 18 May 2005. By the end of this century, under RCP 8.5 scenario these storms could be expected to occur on a 40 to 50 year return period, and under RCP 6.0, on a 60 to 80 year return period.

2. **INTRODUCTION**

- 2.1. My full name is Peter Lindsay Blackwood.
- 2.2. My evidence is given on behalf of the Whakatāne District Council (the **District Council**) in relation to:
- (a) Proposed Plan Change 1 (Awatarariki Fanhead, Matatā) to the Operative Whakatāne District Plan; and
 - (b) Proposed Plan Change 17 (Natural Hazards) to the Bay of Plenty Regional Natural Resources Plan (a private plan change request from the District Council)

(together referred to as the **Proposed Plan Changes**).

**BEFORE A HEARING PANEL: WHAKATĀNE DISTRICT COUNCIL AND BAY
OF PLENTY REGIONAL COUNCIL**

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of submissions and further submissions
on Plan Change 1 (Awatarariki Fanhead,
Matatā) to the Operative Whakatāne
District Plan and Plan Change 17
(Natural Hazards) to the Bay of Plenty
Regional Natural Resources Plan

**STATEMENT OF EVIDENCE OF PETER BLACKWOOD ON BEHALF OF
WHAKATĀNE DISTRICT COUNCIL**

ENGINEERING – METEOROLOGY

15 January 2020

**BROOKFIELDS
LAWYERS**

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