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IN THE FEDERAL COURT OF AUSTRALIA **NO. VID622/2021**

DISTRICT REGISTRY: VICTORIA

DIVISION: GENERAL

Pabai Pabai and Guy Paul Kabai Applicants

and

Commonwealth of Australia Respondent

APPLICANTS' CLOSING SUBMISSIONS IN REPLY

PART 1. PRELIMINARY MATTERS

1 From the parties' pleadings and submissions, it is apparent that the Applicants and Respondent broadly agree on several significant matters:

1.1 Anthropogenic emissions cause global warming and a broad variety of impacts (though the parties have some disagreement regarding these impacts at the regional and local level);[1]

1.2 Every tonne of CO2 emitted causes global warming;[2]

1.3 Torres Strait Islanders are vulnerable to climate change and are already suffering from impacts of climate change;[3]

1.4 The Commonwealth has, at least some, control of Australia's emissions which contribute to global warming;[4]

1.5 A body of reliable and evolving consensus scientific information exists regarding the causes of and impacts from global warming (best available science), though the parties have some disagreement regarding the precise scope of that body;[5]

1.6 There are three broad methodologies discussed in the scientific community to apportion global carbon budgets at the national level, but there is no consensus on a single methodology;[6]

1.7 The risk of "tipping points" increase as global temperatures increase;[7]

1.8 The factors to be considered in assessing a novel duty of care.[8]

2 However, key differences emerge in the parties' submissions in relation to the facts, the law, and their interplay.

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1 RS [198], [200].
2 RS [180].
3 RS [1].
4 RS [681(a)].
5 RS [189]-[190].
6 RS [240].
7 RS [215].
8 RS [39].

3 With respect, the Applicants submit that an air of unreality pervades the Respondent's submissions. In the world found within the Respondent's submissions:

3.1 Torres Strait Islanders can defend themselves against the impacts of climate change;[9]

3.2 Observations from Torres Strait Islanders about the land they live on cannot be relied upon;[10]

3.3 The world is responsible for climate change, but no nation is;[11]

3.4 Climate change has a global impact, because we have the tools to measure that impact, but climate change has no local impact, because we do not yet have the tools to measure that impact;[12]

3.5 Setting a national emissions target has no causal effect on national emissions;[13]

3.6 It is reasonable to set a climate target not based on climate science;

3.7 There can be no basis for compensation for a person's loss of fulfilment of their ancient culture.[14]

4 It is uncontroversial that the law must be applied to the specific facts of each case. However, the Respondent's submissions fail to grapple with the two defining factual elements of Applicants' case:

4.1 That the Applicants and Group Members are Torres Strait Islanders, a specially vulnerable group with whom the Commonwealth shares a special relationship. This is not a case about a generic relationship between "the governing and the governed";[15]

9 RS [670].
10 RS [532]-[534].
11 RS [8].
12 RS [313]-[314].
13 RS [776].
14 RS [841].
15 RS [49].

4.2 That the underlying issue in this case in climate change, which poses an imminent and existential threat to Torres Strait Islanders. This is not a case about contaminated oysters or a slip and fall.

5 To the extent that the Respondent's submissions engage with the intersection of law and fact in relation to climate change, they place undue reliance upon the Full Federal Court's decision in *Minister for the Environment v* ***Sharma***[16] as:

5.1 *Sharma* involved a class ("youth") and facts very different from the present proceeding;

5.2 The Full Court's decision in *Sharma* is composed of three separate judgements without a clear plural *ratio*;

5.3 *Sharma* involved an administrative review under statute;

5.4 *Sharma* did not reach the issue of breach, and therefore causation;

5.5 *Sharma* was solely concerned with potential future harm rather than past and ongoing harm;

5.6 The Respondent cites substantially to *obiter*.

6 These submissions distinguish *Sharma* in further detail below.

7 When the Respondent's submissions address the legal relevance of the fact the Applicants and Group Members are Torres Strait Islanders, they do not acknowledge a special relationship with the Commonwealth or particular vulnerability to climate change. Instead, they:

7.1 Reject any legal basis to damages for loss of fulfilment of *Ailan Kastom*;[17]

7.2 Criticise Torres Strait Islanders alleged failure to take steps to protect themselves from climate change;[18]

16 APP.0001.0020.0101 *Minister for Environment v Sharma* [2022] FCAFC 35; (2022) 291 FCR 311.
17 RS [841].
18 RS [670].

7.3 Redirect focus from the Applicants' pleaded case that the temperature goal relates to small and low-lying islands like the Torres Strait Islands, to a more general temperature goal disconnected from the fate of Torres Strait Islanders;

7.4 Assert that the colonial relationship between "the governing and the governed" is irrelevant prior to Federation;[19]

7.5 Suggest that Torres Strait Islanders' first-hand observations of changes to their homeland should not be accepted as relevant evidence in relation to the impacts of climate change in the Torres Strait.[20]

8 At times, the Respondent appears to defend itself against a different case than the one brought against it. The Applicants' case is not that the Commonwealth should have relied "only" upon best available science in setting its emissions targets.[21] The Applicants' case is that it was unreasonable for the Commonwealth to set an emissions target inconsistent with the best available science.

9 Given the length of the Respondent's submissions, the Applicants do not propose to address all matters raised in those submissions. For avoidance of doubt, the fact that an argument raised in the Respondent's submissions is not addressed in reply should not be construed as acceptance of that argument.

A. FACTUAL BACKGROUND

Best available science

10 Section D.4.3 of the Respondent's submissions makes clear that the parties largely agree on the definition of best available science, being the leading sources of climate science at a particular point in time that are accepted by a majority of the scientific community.[22] In addition to the reports of the IPCC, WMO and CSIRO, the Applicants agree that the Australia State of the Environment Report 2021, the State of the Climate reports and the

19 RS [611].
20 RS [532]-[534].
21 RS [733].
22 RS [189].

2015 AAS report also form part of the best available science.[23] To the extent the parties disagree, the Applicants submit:[24]

10.1 Throughout its closing submissions generally and in respect of best available science, the Respondent adopts an overbroad characterisation of 'policy'.[25] The purported 'bright line' drawn by the Respondent between scientific and policy considerations is apt to mislead. Statements of scientific best practice are often delivered to governments in a decision-making context. This context does not invalidate the scientific nature of the statement or its inclusion in the body of best available science.

10.2 On this basis, the Applicants maintain that the CCA's 2014 report entitled '*Reducing Australia's GHG emissions – Targets and Progress Review – Final Report*' was best available science at the time of its publication to the extent that it demonstrated the process for preparing a temperature-limited CO_2 budget and provided an example of the 'grandfathering' methodology for determining a nation's share of the remaining pool of cumulative GHG emissions to limit global warming to a certain level.[26]

10.3 Although the Applicants disagree with the Respondent's treatment of parts of UNEP Gap Reports and 2021 AAS report, they do not to press their position given the disputed parts of the documents are not relied on in closing submissions.

11 While the parties agree that the best available science on climate change evolves over time, the Respondent's characterisation of best available science in 2014 as well as the process by which best available science emerges is incorrect:

11.1 While there is a relationship between best available science and the international political consensus on climate goals, they are not the same.[27] The global community shifted its focus from stabilising temperatures at below 2°C in 2014 to 1.5°C with the adoption of the Paris Agreement at the end of 2015, sparking, as

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23 RS[190]-[191].
24 See RS [192]-[194] in which the Respondent excludes parts of the UNEP Gap Reports and the 2021 AAS report as well as the 2014 CCA report in its entirety from the sources of BAS.
25 RS [192]-[194] and [236]-[237].
26 AS [127.3] and [130.1]
27 RS [197].

Professor Meinshausen put it, "a flurry of activity" in reaction to the political decision. However, this does not mark the moment at which the best available science reflected that keeping long-term global temperature increase to below 1.5°C would prevent or minimise many of the most dangerous projected impacts of climate change.[28]

11.2 The relevant best available science in the context of this proceeding is the level of global temperature increase necessary to avoid the most dangerous impacts of climate change ***to small and low-lying islands such as the Torres Strait***.[29] From at least 2014, the relevant temperature limit – that in relation to small and low-lying island such as the Torres Strait - identified by the best available science was 1.5°C.

The current global impacts of climate change

12 Throughout its submissions, the Respondent cavils with the Applicants' use of the language "most dangerous" impacts of climate change.[30] The Applicants adopt the language of the "most dangerous" impacts of climate change throughout their pleadings and submissions because:

12.1 it is accepted that some impacts of climate change are, at this time, inevitable; and

12.2 considering that some impacts are inevitable, it is these most dangerous impacts that should be the focus of the Respondent's duty.

The projected global impacts of climate change

13 The Applicants assume that the Respondent's submission at RS [201] misinterprets the use of the term "accelerates" by the Applicants at AS [83]. It is uncontroversial that each increment of global warming increases adds the frequency and magnitude of climate impacts.[31] The "acceleration" of changes to climate and weather extremes caused by temperature increase should be understood in this context.

14 As to RS [202], the Respondent's submission that there are varying levels of confidence as to the relationship between levels of global temperature increase and impacts at the

28 RS [197]; 3FASOC [31].
29 3FASOC [31], [51]. [58] and [60]; AS [322.1].
30 RS [188] and [199].
31 AS [83]-[85].

global level relies wholly on the evidence of Professor Pitman.[32] Professor Pitman's evidence pertains to the inherent limitations of science's capacity to model near-term impacts of global temperature increase under different warming scenarios. In response, the Applicants submit:

14.1 Each unit of GHG emissions causes an increase in radiative forcing which, in turn, causes global temperature increase and associated climate impacts.[33] Professor Meinshausen's evidence is that this scientific fact should not be ignored simply "because of limits to our modelling and observations."[34] As "there is no question that any GHG emission causes radiative forcing and – in aggregate – they then cause global mean warming with various regional climate impacts," Professor Meinshausen's opinion is that "for any specific climate impact event, the probability of occurrence (or alternatively, the intensity of an impact and associated damages) will change."[35]

14.2 Further, while some of the expert evidence is informed by modelled projections, these opinions are often corroborated by direct observation, empirical research and broader expertise. Professor Pitman states that "the problem is, as a matter of physical science, if you cannot demonstrate an effect, one has to infer that there is an effect that you cannot demonstrate."[36] The Applicants' experts are well placed to draw these inferences about projected impacts at different temperature levels even if one accepts the limitations of modelling proffered by Professor Pitman.

15 In response to the submission at RS [204]-[205], the Applicants refer to [11] above. Further, there is extensive evidence in support of the proposition that the projected global impacts of climate change are materially worse if global temperature increase is stabilised at 2°C as opposed to 1.5°C in the long term.[37] As stated in the IPCC's Special Report on 1.5°C, "climate models project robust differences in regional climate characteristics between present-day and global warming of 1.5°C and between 1.5°C and 2°C."[38]

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32 RS [202].
33 AS [37], [47] and [49]-[80].
34 APP.0001.0015.0010 Exhibit A46, Meinshausen Supplementary Report [8]
35 APP.0001.0015.0010 Exhibit A46, Meinshausen Supplementary Report [9]
36 TRN.0015.1271 16 November 2023, Professor Pitman, T1331.5-8.
37 AS [84]-[85].
38 APP.0001.0007.0116 IPCC, 2018: Global Warming of 1.5°C, [_0021]. Section B of the SPM sets these differences out in detail.

16 In response to the submission at RS [207], the Applicants refer to AS [114]-[117] which sets out Professor Karoly's evidence that tipping points pose a catastrophic risk to the Torres Strait. Some of these tipping points could be triggered with less than 2°C of warming and, critically, the risk of reaching any tipping point increases with higher global temperatures.[39]

There is a near linear relationship between global temperature increase and climate impacts

17 At RS [210], the Respondent argues that the relationship between global temperature increase and climate impacts is not "approximately linear", citing to passages of its cross-examination of Professor Karoly.[40] However, the cited transcript fails to make good on this assertion and underscores that the relationship between emissions (and therefore global temperature increase) and climate impacts is a bedrock of climate science.

18 The Respondent's error is due to its undue emphasis on the specific term "linearity". During cross-examination, Professor Karoly was taken to the following passage in the IPCC's Sixth Assessment Report (*The Physical Science Basis)*:[41]

> [M]any changes in the climate system **become larger in direct relation to increasingly global warming**. They include increases in the frequency and intensity of hot extremes, marine heatwaves, heavy precipitation and, in region, agricultural and ecological droughts, an increase in the proportion of intense tropical cyclones and reductions in Arctic sea ice, snow cover and permafrost.[42]

While the Respondent highlighted the absence of the term "linear", Professor Karoly explained that "that's what they mean, or approximately linear."[43] The Respondent further criticises Professor Karoly's evidence on linearity by stating that "he had just inferred it from Fig.6 of his report."[44] Figure 6 of Professor Karoly's report is extracted from the IPCC's Summary for All (released in 2021 as part of the Sixth Assessment Report);[45] that is, the graphic itself is best available science.

19 At RS [211], the Respondent further confuses the issue by stating that even if approximate linearity exists at the global level, it cannot be inferred that same

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39 AS [117].
40 RS [210].
41 TRN.0009.0844 8 November 2023, Professor Karoly, T903.33.
42 EVI.2001.0003.0321 IPCC, Climate Change 2021: The Physical Science Basis – Summary for Policy Makers [.0339].
43 TRN.0009.0844 8 November 2023, Professor Karoly, T911.40-42.
44 RS [210].
45 TRN.0009.0844 8 November 2023, Professor Karoly, T912.4-11.

relationship applies at the regional or local level. The basis for this statement is a misreading of Professor Karoly's evidence to the effect that the impacts of global temperature increase vary geographically. Neither the Applicants nor Professor Karoly say that all impacts of climate change manifest identically at the global, regional or local level . The relationship between global warming and a specific impact might be 2x in one location and 0.5x in another. That does not change the fact that the relationship is approximately linear in each location. During cross-examination, Professor Church stated that "local sea level rise is an influence of a mix of factors" but that, ultimately, the relationship between global temperature increase and sea level rise in particular locations is "direct."[46] Professor Church proceeded to explain this relationship by analogy to a partially filled bathtub:

> You can wave your hand backwards and forwards in the water and you will see the water sloshing upwards and down – backwards and forwards in the bathtub but if you leave the tap dripping, ultimately, the bathtub overflows regardless of the sloshing.[47]

Tipping points

20 At RS [215], the Respondent agrees with the submission that the risk of crossing tipping point thresholds increases with global temperature increase. This scientific fact, coupled with the Applicants submissions at AS [114]-[117] underscore the catastrophic risk posed to Torres Strait Islanders in the long-term by continued GHG emissions.

Modelling the regional impacts of climate change

21 Professor Karoly, Professor Church, Professor Hughes, Professor Selvey and Mr Bettington each opined on the projected severity and frequency of climate change impacts in the Torres Strait at different levels of global temperature increase, albeit caveated by degrees of confidence and specificity. The Respondent's submission that regional and local impacts are difficult to project does not take it particularly far in this context.[48] In any case, the Applicants disagree that the article by Lane et al., which focuses on event attribution rather than the projection of impacts, supports this proposition.

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46 TRN.0020.1551 24 November 2023, Professor Church, T1579.28-1580.10.
47 TRN.0020.1551 24 November 2023, Professor Church, T1580.10-17.
48 RS [223].

22 The Applicants agree that the dispute as to the robustness of dynamical downscaling has little bearing on the Court's determination of the current impacts of climate change in the Torres Strait, which has been the subject of direct observational evidence as well as expert opinion.[49] To the extent that it is relevant to the determination of the projected impacts of climate change in the Torres Strait, the Applicants reject that Professor Pitman's view ought to be preferred:[50]

22.1 First, Professor Pitman acknowledges that there is a "diversity of views" on this issue. In his report, he states that "some strongly support the use of Regional Climate Models", with the IPCC noting that "several studies have demonstrated that added value arises" from reliance on these models.[51]

22.2 Second, Professor Pitman's evidence on this issue does not rise beyond an acknowledgement of the technical limitations of modelling (as set out at [14] of these submissions). Essentially, he argues not that there is no impact, but that science is not yet capable of measuring it with precision. Given Professor Pitman's agreement with the proposition that the regional effects of climate change should not be assessed solely by reference to modelling but also observational data[52] and admitted unfamiliarity with the impacts of climate change in the Torres Strait (Professor Pitman accepted that he was not in a position to offer evidence on the attribution of particular events in the Torres Strait to climate change and "wouldn't have a clue" and "wouldn't know")[53], he is not well placed to determine the utility of modelling in this proceeding. Critically, Professor Pitman states that sea level rise is "outside [his] expertise."[54]

GHG emissions reduction targets

23 The Respondent misconstrues the Applicants' case in relation to the setting of emissions targets. The Applicants' claim is not that a target can be "derived from the 'BAS' alone."[55] Rather, the Applicants' claim is that it is manifestly unreasonable to set an emissions target without regard to, or inconsistent with, the relevant climate science.

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49 RS [226].
50 RS [226].
51 EXP.2000.0001.0286 Exhibit R10, Pitman Report, [15].
52 TRN.0015.1271 16 November 2023, Professor Pitman, T1332.17-19.
53 TRN.0015.1271 16 November 2023, Professor Pitman, T1332.12-15, T1333.6-27.
54 TRN.0015.1271 16 November 2023, Professor Pitman, T1334.34-36.
55 RS [236].

Contrary to the Respondent's submission at RS [236]-[237], the expert evidence is consistent with this submission.

24 As a starting point, the Respondent accepts at RS [238] that the three broad categories for apportioning cumulative remaining GHG emissions to limit warming to a certain temperature level between countries are: (1) equality or equal per capita; (2) historical responsibility; and (3) grandfathering. The Respondent adds "if a purely scientific or mathematical approach was taken" but offers no evidence for that limitation.

25 Further, at [238] the Respondent agrees with Professor Meinshausen's summary of each of the methodologies, subject to exceptions identified at [236]-[240].

26 The Applicants and Professor Meinshausen both accept that none of the three methodologies is accepted as the sole approach for dividing the remaining cumulative GHG emissions between nations. However, between them, they reflect the recognised types of methodologies for apportioning the remaining global carbon budget between nations.

Professor Meinshausen's evidence on Australian emissions targets

27 The Respondent submits at [297] and [303] that the approach adopted by Professor Meinshausen to prepare a global CO_2 budget for 1.5°C was not one the Commonwealth could have undertaken at the time of alleged breach in 2014. This is not supported by the expert evidence. The Respondent improperly characterises the approach as a "hindsight analysis" because it relies on the IPCC's CO_2 budget for 1.5°C published in 2021 and other information that was not available in 2014.

28 Professor Meinshausen testified that the use of actual emissions in the relevant period rather than projected emissions available to the Respondent was not "material" and would not be "huge change up or down."[56]

29 Professor Meinshausen testified that the AR5 published in 2013 and 2014 included information in respect of temperature levels below 2°C so that "in the background, all the levels pretty much were calculated."[57] This is evident in Table 2.2 of the IPCC's AR5 Synthesis Report, which sets out the remaining cumulative CO_2 emissions that could be

[56] TRN.0013.1118 14 November 2023, Professor Meinshausen T1134.40.
[57] TRN.0013.1118 14 November 2023, Professor Meinshausen T1135.5-9.

emitted from 1870 and 2011 to give a specified probability of limiting global warming to 1.5°C, 2°C and 3°C.[58]

30 Consequently, the analysis conducted by Professor Meinshausen could have been conducted by the Commonwealth and indeed was conducted by the Climate Change Authority, albeit focused on a 2°C scenario.[59]

31 The Applicants respond to the fourth issue identified by the Respondent at [306] of its submissions at Part G.

Evidence of Professor Meinshausen, Dr Canadell and Professor Pitman

32 The evidence of Dr Canadell and Professor Pitman in respect of the targets derived from Professor Meinshausen's report is that the avoided temperature increase is not detectable by existing scientific instruments or models and, as a result, it is not possible to *quantify* the specific regional climate impacts that would have been avoided.[60] The Applicants submit that:

32.1 As set out at [14.1] of these submissions, each unit of GHG emissions causes an increase in radiative forcing which, in turn, causes global temperature increase and associated climate impacts.[61] Professor Meinshausen's evidence is that this scientific fact necessitates the conclusion that each GHG emission causes some change in the probability of occurrence or intensity of a specific climate impact event regardless of whether scientific models or instruments are capable of measuring that change.[62]

32.2 Fundamentally, the difference in Professor Meinshausen and Professor Pitman's opinion in respect of the attribution of the avoided GHG emissions to current and projected impacts in the Torres Strait can be reduced to the weight both experts place on science's ability to detect and measure change using models and instruments. As the Respondent sets out in its submissions at [325], Professor Pitman considers that "the scientific method requires either observed evidence or

58 APP.0001.0007.0115 IPCC, 2014, AR5 Synthesis Report at [.0079].
59 APP.0001.0004.0015 Reducing Australia's Greenhouse Gas Emissions – Targets and Progress Review (2014) at [.0049].
60 RS [307]-[321].
61 AS [37], [47] and [49]-[80].
62 APP.0001.0015.0010 Exhibit 46 Meinshausen Supplementary Report [9].

empirical evidence or modelling evidence in support of a statement one might make;" in the absence of this evidence, Professor Pitman does not attribute any change to the avoided emissions. In contrast, Professor Meinshausen adopts an inferential reasoning process premised on the irrefutable scientific fact repeated at [32.1] above. The Applicants reject Professor Pitman's characterisation of this reasoning process as "philosophical;" it is an opinion based upon Professor Meinshausen's training, study and expertise, albeit one Professor Pitman disagrees with because of the subjective importance he attributes climate modelling and direct observation.

32.3 The unavoidable inference to be taken from the expert evidence is that the Commonwealth's avoided emissions would have had (and will have) some effect in increasing the impacts of climate change in the Torres Strait even if these impacts may not be detectable by current instruments or modelling. This aligns with the evidence of Professor Meinshausen, as set out above. The Respondent's characterisation of Professor Pitman's evidence at RS [313] must be caveated by the fact that Professor Pitman will only acknowledge an impact if it is measurable by scientific instruments or observation.[63]

33 The Applicants' response to the Respondent's submissions at [326] that any climate impacts in the Torres Strait caused by the Commonwealth's alleged breaches of the Primary Duty are *de minimis* is set out at [188] – [191] below.

B. CQ1 & 2: THE CURRENT AND PROJECTED IMPACTS OF CLIMATE CHANGE IN THE TORRES STRAIT

Current impacts

34 At RS [484], the Respondent accepts that the Torres Strait has been affected by some impacts of climate change but questions the Applicants' submissions at AS [49] and [51] that climate change impacts observed globally have occurred and continue to occur in the Torres Strait, some of which are manifesting similarly or more severely. AS [49] and [51] refer to evidence that the Respondent does not grapple with.

63 RS [325].

35 The Applicants agree that, in each case, it is necessary for the Court to consider the impact asserted and evidence of its nature and extent in the Torres Strait.[64]

Sea level rise

36 Contrary to the submission at RS [487], the Court has received evidence about the extent of sea level rise on individual islands and across the Torres Strait region that support the straightforward proposition that climate change has had and continues to have the effect of causing sea level rise in the Torres Strait:

36.1 The lay witnesses gave evidence of their observations of sea level rise on Saibai, Boigu, Badu, Poruma and Warraber;[65]

36.2 Mr Bettington's expert evidence pertained to sea level rise on Saibai, Boigu, Poruma and Warraber and, in addition, included his observation of inundation on Iama;[66] and

36.3 Professor Church's opinions as to the current and projected level of sea level rise applied to the Torres Strait region as a whole.[67]

37 In respect of the submission at RS [490], the Applicants submit that the evidence drawn from the Torres Strait State of the Environment Report Card should be given considerable weight given it reflects the view of the author of the report, being the Torres Strait Regional Authority (in particular, the Land and Sea Management Unit), and was prepared in partnership with the Commonwealth Government.[68] Even if the exact quantum of sea level rise is not accepted, Professor Karoly relied on the source in support of his evidence that sea levels are rising by a statistically significant amount in the Torres Strait.[69] This opinion is corroborated by the preceding evidence set out in RS [487]-[491] and, as such, the Applicants submit it should be accepted. Whether or not sea level rise in the Torres

64 RS [485].
65 APP.0001.0012.0004 Affidavit of Uncle Pabai [81]-[82], [128-141], [147]-[159]; APP.0001.0009.0006 Affidavit of Uncle Boggo [71-81], [94]-[103]; APP.0001.0012.0009 16 June 2023, Uncle Frank, T795:4-38; APP.0001.0012.0003 12 June 2023, Uncle Herbert, T549:15-550:12; APP.0001.0012.0006 13 June 2023, Aunty Jen, T636:23-33; APP.0001.0012.0007 6 June 2023, Uncle Fred, T106:8-37; APP.0001.0009.0011 Affidavit of Uncle Gerald [17]-[20]; APP.0001.0012.0008 15 June 2023, Uncle Gerald, T728:13-45.
66 APP.0001.0009.0003 Exhibit A48 Bettington Report, [_0018] and [_0023]. See also AS [56]-[66].
67 APP.0001.0009.0002 Exhibit A53, Church Report [49], Table 5. See also AS [56]-[66].
68 APP.0001.0007.0158 TSRA, Torres Strait State of the Environment Report Card 2021 [.0001].
69 APP.0001.0003.0093 Exhibit A40, Karoly Report [77]; APP.0001.0007.0158 TSRA, Torres Strait State of the Environment Report Card 2021 [_0009].

Strait region is higher or lower than the global average – it is rising. Further, Torres Strait communities are low-lying and more vulnerable to identical rises in different regions.

Extreme sea level events and inundation of coastal areas

38 At RS [494], the Respondent accepts that mean sea level rise can increase the frequency of extreme sea level events but questions the extent of the frequency and severity of such events in the Torres Strait as well as the extent to which these events have changed over time. This is contrary to the extensive evidence from Professor Church and Mr Bettington (outlined in AS [56]-[66]) and corroborating lay witness testimony in respect of both sea level rise[70] and extreme sea level events.[71]

39 The Respondent's submission at [495] reflects the very reason why the evidence of Professor Church and Mr Bettington ought to be accepted. Professor Church (as set out in AS [57]-[58]) demonstrates that the height of extreme events in the Torres Strait is directly related to local mean sea level and that there has been an increase in the frequency of extreme events in the region. Mr Bettington applied Professor Church's assumptions in respect of sea level rise in the Torres Strait between 1900 and 2023 to determine the real-world impact of this regional sea level rise (see AS [59]-[61]). Together, Professor Church and Mr Bettington's evidence serves as an empirical basis to conclude that observed sea level rise in the Torres Strait has quantifiably increased the risk of more frequent and severe flooding in the Torres Strait.

40 The proposition that observed sea level rise in the Torres Strait is directly related to increased risk of more frequent and severe flooding is corroborated by the observations of the Applicants' lay witnesses as well as the Respondent's expert evidence. Dr Harper's criticisms of Mr Bettington's methodology in assessing the current frequency and severity of extreme sea level events on Boigu, Saibai, Poruma and Warraber does not extend to disagreement with the opinion that these markers of extreme events have

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70 APP.0001.0012.0004 Affidavit of Uncle Pabai [81]-[82], [128-141], [147]-[159]; APP.0001.0009.0006 Affidavit of Uncle Boggo [71-81], [94]-[103]; APP.0001.0012.0009 16 June 2023, Uncle Frank, T795:4-38; APP.0001.0012.0003 12 June 2023, Uncle Herbert, T549:15-550:12; APP.0001.0012.0006 13 June 2023, Aunty Jen, T636:23-33; APP.0001.0012.0007 6 June 2023, Uncle Fred, T106:8-37; APP.0001.0009.0011 Affidavit of Uncle Gerald [17]-[20]; APP.0001.0012.0008 15 June 2023, Uncle Gerald, T728:13-45.

71 APP.0001.0012.0004 Affidavit of Uncle Pabai [87], [131]-[133], [169], [170], [180]; APP.0001.0009.0005 Affidavit of Uncle Paul [131]-[133], [140]-[142]; APP.0001.0012.0008 15 June 2023, Uncle Boggo, T667:47-668:23; APP.0001.0009.0013 Affidavit of Uncle Laurie [85]-[96]; APP.0001.0009.0011 Affidavit of Uncle Gerald [33], [40]; APP.0001.0012.0003 12 June 2023, Uncle Herbert, T541:34-40; APP.0001.0009.0007 Affidavit of Uncle Herbert [31]-[32].

increased in the period 1900 to 2023 (as is clear from Tables 7 and 8 in the Respondent's submissions).[72] Further, as stated in AS [57], the Systems Engineering Australia '*Torres Strait Extreme Water Level Study*' (2011) that Dr Harper prepared implies that the average depth of flooding across the Torres Strait increased 0.12 m from 1993 to 2023 and 0.25 from 1900 to 2023.[73]

41 The Applicants submit that Mr Bettington's calculations of extreme water levels ought to be accepted:[74]

41.1 Mr Bettington added "a modest level of regional lift" to the water levels in Dr Harper's 2011 report to account for the fact that, in his on country experience conducting hazard assessments in the Torres Strait, the water levels in Dr Harper's 2011 study substantially underestimate the actual levels in the region.[75] Mr Bettington testified that he observed anomalies on Iama, Warraber, Boigu, Saibai and Poruma.[76] His methodology for determining the uplift to account for these anomalies was a practical one. There are sand dunes on Warraber with clear lines that form through underwater action. Estimating that these dune lines were likely formed in a 500-year ARI event by wave run-up, Mr Bettington worked backwards to determine that water level on the reef top in a 500-year ARI event was 0.5 m higher than in the Dr Harper's 2011 study. Mr Bettington then scaled this amount downwards for more frequent return periods, which accorded with his observations on other islands such as Saibai and Boigu. This justified his conclusion that the lift could be adopted for the other islands in his report (Boigu, Saibai and Poruma).[77]

41.2 Dr Harper's opinion that there is no basis for this lift is premised on the events in Table 4 already being accounted for in Dr Harper's 2011 study.[78] However, Mr Bettington's evidence remains that the water levels modelled by Dr Harper are inconsistent with Mr Bettington's real world observations.[79] Mr Bettington testified that his methodology in applying the uplift is "crude" relative to Dr Harper's "very

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72 RS [497]-[498].
73 APP.0001.0009.0002 Exhibit A53, Church Report [67].
74 RS [496].
75 APP.0001.0009.0003 Exhibit A48, Bettington Report at Section 2.2.3; TRN.0014.1172 15 November 2023, Bettington/Harper/Barnes at T1179.43-1180.36.
76 APP.0001.0009.0003 Exhibit A48, Bettington Report at Section 2.2.2; APP.0001.0015.0011 Exhibit A49 Betting Supplementary Report at Section 1.2; TRN.0014.1172 15 November 2023, Bettington/Harper/Barnes, T1179.43-44.
77 TRN.0014.1172 15 November 2023, Bettington/Harper/Barnes, T1180.12-36.
78 EXP.2000.0001.0252 Exhibit R7, Harper Report at [.0251]-[.0252].
79 TRN.0014.1172 15 November 2023, Bettington/Harper/Barnes, T1219.1-23.

detailed model" but given "the numbers were under … what [he] would have anticipated based on the observations [he has] in the field", the lift is justified.[80] During the concurrent cross-examination of Dr Harper, Mr Bettington and Dr Barnes, Dr Harper testified that, although he maintained his view, "all of the things [Mr Bettington] is saying are not unreasonable" because "it's very difficult to get an exact match between a reconstructed weather event and an actual measurement."[81]

41.3 Contrary to the Respondent's submission in [496], Mr Bettington did not accept that events on one island cannot be used to determine whether regional uplift is needed for others. Instead, Mr Bettington accepted that a flooding event on Iama on its own is not reliable basis to determine whether the regional uplift is required on the four mapped islands.[82] Mr Bettington's justification for applying the regional uplift is premised on his observations across the several islands in the Torres Strait including, as set out above, Saibai, Boigu, Poruma and Warraber.

41.4 Ultimately, the debate between Dr Harper and Mr Bettington can be reduced to a contest over whether modelling conducted in 2011 should be accepted as absolute or whether inconsistencies between that model and observed conditions in the Torres Strait should be incorporated. The Applicants submit that, due to Mr Bettington's expertise in performing coastal hazard assessments in the region and his direct observational experience, his practical adjustments to Dr Harper's model should accepted.

42 The Respondent's submission at RS [500] that the Township Inundation Event is not a meaningful method for understanding the extent of community flooding during an extreme sea level event misunderstands the effect of this evidence. The method is representative of an event that, in Mr Bettington's view and based on his visual assessment, will cause inundation of approximately half of the land areas occupied by the communities on Boigu, Saibai, Poruma and Warraber. The arguments at RS [501] and [502] are criticisms that can be made of flood mapping and coastal risk assessments generally.

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80 TRN.0014.1172 15 November 2023, Bettington/Harper/Barnes, T1217.29-36.
81 TRN.0014.1172 15 November 2023, Bettington/Harper/Barnes, T1220.40-43.
82 TRN.0014.1172 15 November 2023, Bettington/Harper/Barnes, T1218.29-33.

43 The Respondent's submission at [503] should be rejected for the reasons outlined at [41] above. In addition, the Applicants note that Dr Harper did not opine in his report or testimony on the average recurrence interval of Township Inundation Event on Boigu, Saibai, Poruma and Warraber in 1900 or 2023. Although Dr Harper considered that his removal of Mr Bettington's regional lift from the water levels "will likely substantially change these values," he did not produce a version of Mr Bettington's Table 9.[83] Thus, the figures at RS [503] are not taken from Dr Harper's evidence but appear to have been created by the Respondent based on its interpretation of the Harper Report Modified Tables 7 and 8 in the Joint Expert Report.[84] The table in RS [503] is not Dr Harper's and should be rejected.

44 In the event the Court accepts this evidence, the calculations support the following propositions:

44.1 The present-day experience of an inundation event that causes up to 0.5 m of flooding in almost all parts of the community on Boigu and Saibai has an annual likelihood of occurrence of 4% and at least 10% respectively.

44.2 The present-day represents a significant increase in risk from 1900, where the annual likelihood of occurrence was (at most) 0.2% and 1% respectively.

44.3 The intervals in Dr Harper's projections do not allow for a comparison of the relative recurrence rates for Poruma and Warraber in 1900 as opposed to the present-day.

45 Contrary to the Respondent's submission at [505] and [506], Mr Bettington's evidence directly supports the assertion that the increased frequency and severity of inundation events in the Torres Strait since 1900 has reduced the habitability of the islands. Mr Bettington opines in his report that the frequency of occurrence of Township Inundation Event on Saibai and Boigu in 1900 is manageable with suitable adaptation such as putting houses on stilts.[85] However, Mr Bettington gives further testimony that "for water levels today, the event has now become a 5 to 10 year average recurrence interval event", being

83 APP.0001.0015.0011 Exhibit A49, Supplementary Bettington Report, Table 9; EXP.2000.0001.0252 Exhibit R7, Harper Report at [12].
84 Joint Report, [APP.0001.0015.0001], Dr Harper's modified Tables 7 and 8 at [_0013]-[_0014].
85 APP.0001.0009.0003 Exhibit A48, Bettington Report at Section 2.3.3.

a "frequency [that] represents a significant increase in issues for the community."[86] The "significant increase in issues" must be interpreted in light of Mr Bettington's previous statement that the frequency levels in 1900 were only manageable with suitable levels of adaptation. On this basis, Mr Bettington's opinion is that the current extreme event frequencies and levels on Boigu and Saibai represent a significant challenge to the habitability of those communities, a challenge that will grow worse as they increase.

Temperature increase and extreme heat

46 At RS [508], the Respondent offers no evidence for its assertion that the average warming trend across Australia and northern Australia cannot be extrapolated to the Torres Strait Islands. In circumstances where Professor Karoly's opinion is that (i) average land temperatures across Australia has increased by 1.47 +/- 0.24°C since 1910; (ii) the average maximum temperature on the Torres Strait Islands has increased by 0.80°C from 1951-60 to the most recent decade 2011-2020 (consistent with long-term warming trends in sea surface temperature in Northern Australia); and (iii) the number of days with a maximum temperature greater than 30°C in Horn Island has increased by 77 days between 1951-60 to 2011-20, there is evidence that temperatures are increasing in the Torres Strait region similar to the rest of Australia.

47 Contrary to RS [509], Professor Karoly's opinion is that the increase in average maximum temperature data from Horn Island is consistent with climate-model simulations of a response to GHGs in the Australian region.[87]

48 In addition, the experts do not say, as asserted at RS [509], that short timescales render it impossible to identify the extent to which temperature has increased due to global warming rather than seasonal variation since 2014. The Respondent's citations are to aspects of the evidence of Professor Karoly and Professor Pitman that are context-specific and were not in answer to a specific question of whether it was possible to perform this analysis.

86 APP.0001.0009.0003 Exhibit A48, Bettington Report at Section 2.3.3.
87 TRN.0010.0920 9 November 2023, Professor Karoly at T927.11-21.

Ocean temperature increase

49 Contrary to RS [513], the finding in the Suppiah report that annual sea surface temperatures in the Torres Strait region rose by approximately 0.16°C to 0.18°C per decade from 1950 to 2010 should be accepted.88 The report was prepared by the CSIRO, whose reports, the Respondent agrees, generally form part of the best available science.89 To the extent that Respondent submits the report is not best available science (see RS [196] and footnote 268) based on Professor Karoly and Professor Pitman's description of it as out of date, Professor Karoly caveats this description with the testimony that the results of the report are entirely consistent with more up to date projections.90 Similarly, Professor Karoly, interpreting Figure 26 of the Suppiah report,91 considered the report sufficiently reliable to form the opinion that there is linearity in the relationship between global temperature increase and sea surface temperate increase in the Northern Tropics between 1950 to 2010.92 On this basis, the Applicants submit that the findings of Suppiah et al. in respect of sea surface temperature increase in the Torres Strait ought to be given material weight.

Harm and destruction of ecosystems and non-human species

50 At RS [518], the Respondent critiques Professor Hughes' evidence regarding the impact of climate change upon mangroves by reference to the study by Duke et al. on which Professor Hughes' evidence is based. During cross-examination, Professor Hughes testified that the Duke et al. study "makes it clear that the authors are not saying that this is not a global warming event" (that is, the 2015/16 mass mangrove dieback in the Gulf of Carpentaria).[93] Professor Hughes' interpretation of the article is that, to the extent it considers the contribution of a prolonged drought and unprecedent high sea temperatures as a cause for the dieback, the article speaks to the impact of climate change on mangrove habitats.[94]

51 Similarly, contrary to RS [519], Professor Hughes' evidence is that loss of seagrass beds is a well-documented cause of large scale dugong movements and death in the Torres

88 AS [72]; APP.0001.0007.0053 Suppiah et al. 2010 Observed and Future Climates of the Torres Strait Region [.0006].
89 RS [191].
90 TRN.0010.0920 9 November 2023, Professor Karoly at T949.45-950.2.
91 APP.0001.0007.0053 Suppiah et al. 2010 Observed and Future Climates of the Torres Strait Region [.0038].
92 TRN.0010.0920 9 November 2023, Professor Karoly, T953.46-954.7.
93 TRN.0010.0920 9 November 2023, Professor Hughes, T978.32-34 and 980.35-981.5.
94 TRN.0010.0920 9 November 2023, Professor Hughes, T980.35-981.5.

Strait and Great Barrier reef and, while seagrass diebacks in the 1970s cannot necessarily be attributed to climate change, the causes of diebacks in the present day are "increasingly linked to climate change."[95]

Heat induced mortality and morbidity

52 At RS [522], the Respondent raises two issues with the methodology adopted by Professor Selvey to conclude that increased warmer temperatures in the Torres Strait have likely already impacted the health of Torres Strait Islanders living in the region. The Applicants submit that:

52.1 The fact that Professor Selvey's analysis could be replicated with respect to many demographics in the Australian or global population supports, rather than diminishes, the ultimate conclusion. There are physiological limits to humanity's tolerance to heat and humidity which may be lowered at a person-to-person level by comorbidities. It is unsurprising that human biology is consistent across different demographics.

52.2 Although general, Professor Selvey's evidence in respect of the likely impact of heat and humidity on death and illness among Torres Strait Islanders in the Torres Strait is based on an exhaustive review of academic literature that consistently identifies the relationship between global temperature increase, regional temperature increase and poor health outcomes especially among populations with disproportionate risk factors. With regard to Common Question 1, the Applicants submit that Professor Selvey's evidence demonstrates that climate change, through its impact on local temperatures, has increased the risk of death and ill-health in the Torres Strait region.

53 The Respondent's submission at [523] that Professor Selvey's environmentalism and activism in respect of climate change requires her evidence to be treated with caution is entirely baseless. This is especially so in circumstances where the Respondent disavows any suggestion that Professor Selvey is not a truthful or credible witness or that her independence was in question. Indeed, when asked about whether any activism had

95 TRN.0010.0920 9 November 2023, Professor Hughes, T987.9-22.

affected her evidence, she maintained, "No. I'm also a scientist and I - my report was based on the science."[96]

54 In addition, the references the Respondent provides in support of its submission at [524] do not demonstrate any tendency on behalf of Professor Selvey to opine on areas outside of her expertise:

54.1 The observation that Torres Strait Islanders are already experiencing the impact of sea level is hardly a remarkable observation given its widespread acceptance in scientific circles;

54.2 The statement in respect of "the experiences of Aboriginal and Torres Strait Islander peoples as whole" is explicitly connected to paragraph [22] of Professor Selvey's report which discusses the factors that could contribute to the disproportionate burden of disease and injury among Torres Strait Islander peoples.

54.3 Professor Selvey testified as to her reasoning for adopting the opinion that 47% of the health gap between Indigenous and non-Indigenous Australians may be attributed to factors such as institutional racism and intergenerational trauma.[97]

54.4 The extent to which Professor Selvey spoke to the work undertaken by other witnesses was the statement that she "would expect that some earlier witnesses spoke" to the point that an increase in global average temperature would cause significant increases in temperature extremes.[98]

54.5 Professor Selvey clarifies that by "assertion", she was referring to the assumption provided in her letter of instruction that global average surface temperature is increased by 1.2°C since pre-industrial times.[99]

55 The submission at RS [530] that the Suppiah report ought not to be given weight in respect of its findings on apparent temperature in the Torres Strait should be rejected for the same reasons set out in [49].

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96 TRN.0011.0992 10 November 2023, Professor Selvey, T1070.34-38.
97 TRN.0011.0992 10 November 2023, Professor Selvey, T1051.9-1052.23.
98 TRN.0011.0992 10 November 2023, Professor Selvey, T1058.38-40.
99 TRN.0011.0992 10 November 2023, Professor Selvey, T1069.18-26.

Relevance of Torres Strait Islander witnesses' evidence

56 At RS [532], the Respondent submits that Torres Strait Islanders' testimony on their lived and observed experience on their islands should be disregarded. There is no reasoned basis for doing so. Given the paucity of resources committed by the Commonwealth to measuring climate impacts in the Torres Strait, the testimony of those who live there is often the best evidence available. Considered alongside the scientific evidence, the testimony of Torres Strait Islanders can support inferences regarding the impacts of climate change on their homeland.

57 At RS [533], the Respondent suggests that evidence of Torres Strait Islander witnesses which refer to observed trends in climate impacts, such as Aunty Jen's statement that "[i]t is noticeably hotter than it used to be" do not enable the Court to make any relevant findings. As noted earlier, this submission fails to recognise that evidence of climate impacts may be relevant even if not specifically quantified.

58 At RS [534], the Respondent points out that testimony from Torres Strait Islander witnesses refers to harm outside the claim period. While this is true, it does nothing to detract from evidence from those witnesses on impacts within the claim period.

Projected impacts

59 The Applicants urge the Court to reject the Respondent's submissions at [537]-[538]. The best available science since 2014 has been that stabilising long-term global temperature increase to 1.5°C will mitigate or avoid some of most dangerous impacts of climate for small and low-lying islands such as the Torres Strait. The expert evidence is demonstrative of the fact that, in general, the impacts of climate change that currently affect the Torres Strait will increase in frequency and/or intensity in direct relation to global temperature rise. As such, the Applicants propose that the Court find that: (i) climate change in the future will have some or all of the impacts described in paragraph [59] of the 3FASOC; and (ii) these impacts will be materially less frequent or severe if long-term global temperature increase is limited to 1.5°C.

Sea level rise

60 Contrary to RS [541] and [544], the lay and expert evidence provides a strong basis for the Court to find that differences in sea level rise by 2050 could impact the habitability

of communities in the Torres Strait. The evidence demonstrates that communities across the Torres Strait face an increasingly unmanageable burden due to sea level rise such that even minor increases in the future could cause them to reassess their place of residence:

60.1 Mr Bettington opines in his report that the frequency of occurrence of a Township Inundation Event on Saibai and Boigu in 1900 was manageable with suitable adaptation such as putting houses on stilts.[100] However, Mr Bettington's evidence is that "for water levels today, the event has now become a 5 to 10 year average recurrence interval event," being a "frequency [that] represents a significant increase in issues for the community."[101] In effect, Mr Bettington considers that low-lying communities such as Saibai and Boigu already face difficulties living with current frequencies of extreme sea level events. Given this precarious situation, even minor increases in sea level rise could render islands uninhabitable.

60.2 There is considerable lay witness testimony that the frequency and intensity of coastal inundation is increasingly unmanageable. For example:

(a) Uncle Paul Kabai testified that the new Saibai seawall was breached in 2020. The king tide crashed over the seawall and into the streets, inundating people's houses with knee-deep water and leaving behind debris and rubbish that took days to clean up. Uncle Paul fears that if the water keeps on rising as it has for the last 10 years, the seawall will not be able to protect Saibai at all. [102]

(b) Uncle Boggo Billy testified that he has encouraged his children to move away from Warraber to mainland Australia because he is concerned that climate change is making Warraber unsafe.[103]

(c) Aunty Jennifer Enosa testified that she has instructed her children to bury her on mainland Australia because does not believe it is safe to be buried at the

100 APP.0001.0009.0003 Exhibit A48, Bettington Report at Section 2.3.3.
101 APP.0001.0009.0003 Exhibit A48, Bettington Report at Section 2.3.3.
102 APP.0001.0009.0005 Affidavit of Uncle Paul [140]-[142].
103 APP.0001.0009.0006 Affidavit of Boggo Billy [132].

Saibai cemetery due to erosion.[104] Aunty Jennifer also gave evidence that she has begun to visualise leaving Saibai.[105]

61 The submission at RS [543] reflects a fundamental misunderstanding of the relationship between global temperature increase and regional sea level rise. As set out at [19] above, Professor Church testified that "local sea level rise is an influence of a mix of factors" and is not strictly linear but that, ultimately, the relationship between global temperature increase and sea level rise in particular locations is "direct."[106] In effect, sea level rise (regionally and globally) will increase in direct relation to global temperature increase and, by extension, each emission of GHG (including the Commonwealth's emissions since 2014). Professor Church's bathtub analogy encapsulates this point accurately: "If you leave the tap dripping, ultimately, the bathtub overflows regardless of the sloshing."[107]

Extreme sea level events and inundation of coastal areas

62 The Applicants repeat their submissions at [41] and [42] above that: (i) Mr Bettington's approach to calculating the water levels on each of the mapped islands ought to be adopted;[108] and (ii) the water levels identified by Mr Bettington as 'Township Inundation Events' are a useful representation of an inundation event that, at certain intervals of recurrence, could cause habitability issues.[109]

63 In respect of RS [548] and [549], the Applicants repeat the submission that Dr Harper did not give evidence on the average recurrence interval of a Township Inundation Event on Boigu, Saibai, Poruma and Warraber under each of the relevant SSPs in 2050 and 2100. Although Dr Harper considered that his removal of Mr Bettington's regional lift from the water levels "will likely substantially change these values," he did not produce competing versions of Mr Bettington's Table 14 or Table 18.[110] The figures at RS [548]

104 APP.0001.0009.0010 Affidavit of Jennifer Enosa [66]-[67].
105 APP.0001.0009.0010 Affidavit of Jennifer Enosa [73].
106 TRN.0020.1551 24 November 2023, Professor Church, T1579.28-1580.10.
107 TRN.0020.1551 24 November 2023, Professor Church, T1580.10-17.
108 Contra RS [547].
109 Contra RS [546].
110 APP.0001.0015.0011 Exhibit A49, Supplementary Bettington Report, Tables 14 and 18; EXP.2000.0001.0252 Exhibit R7, Harper Report at [15] and [17].

and [549] do not form part of Dr Harper's evidence.[111] As the Tables at RS [548] and [549] are not Dr Harper's evidence, they should be given no weight.

64 If the Court accepts that these calculations form part of Dr Harper's evidence, the Applicants submit that Dr Harper's figures in RS [548] and [549] do not allow for the calculation of the increase in annual probability of a Township Inundation Event occurring on any of the mapped islands in 2050 or 2100 under each SSP.[112] This comparison is critical to understand the importance of following the 1.5°C emissions trajectory as opposed to 2°C or 3°C. In the absence of competing evidence, the Applicants' analysis in AS [96] and [98]-[99] should be given considerable weight.

Temperature increase and intensification of heat extremes

65 As a preliminary matter, at RS [552] and elsewhere in its submissions, the Respondent urges the Court not to consider or accept scientific evidence that does not fall within the best available science. While the Applicants' negligence case alleges that the Respondent must, at a minimum, consider the best available science, it does not follow that any scientific publications that do not fall within the definition of best available science should not be accepted as evidence by the Court.

66 With regard to specific climate impacts in the Torres Strait, it would hardly be logical to expect that there could be a global consensus about local and regional analyses like the Queensland Future Climate Dashboard. That absence of global consensus means the Dashboard does not fall within best available science but does not mean it is not valid science or should not be accepted by the Court.

67 The Applicants submit that Professor Karoly's evidence set out at AS [102] should be accepted:

67.1 The Applicants repeat their submissions in respect of regional climate modelling at [21]-[22] above.

111 Joint Report, [APP.0001.0015.0001], Dr Harper's modified Tables 11-13 at [_0015]-[_0017] and Tables 15-17 at [_0018]-[_0020].
112 RS [548]-[550].

67.2 As noted above, the projections from the Queensland Future Climate Dashboard relied on by Professor Karoly need not be a matter of scientific consensus to be accepted by this Court.

67.3 The existence of uncertainty in temperature projections does not detract from the conclusion that temperature increase in the Torres Strait is projected to almost double for global warming of 1.5°C compared to 2°C.

Ocean temperature increase and acidification

68 The Respondent agrees at RS [554] and [557] that the Torres Strait Islands are at increased risk of higher ocean temperatures and acidification with continued GHG emissions and associated global warming. To the extent that the Respondent relies on the evidence of Professor Karoly that impacts vary geographically to conclude that regional impacts cannot be inferred, the Applicants repeat their submission at [19] above.

Erosion

69 Contrary to RS [561], Mr Bettington's evidence that erosion issues in the Torres Strait will worsen with continued sea level rise covers a range of islands:

69.1 Both Poruma and Warraber are vulnerable to coastal erosion that will worsen with sea level rise;[113]

69.2 Communities on continental islands (Horn, Thursday, Prince of Wales, Kiriri, Badu, Mabuiag, Moa, Iama and Dauan) and volcanic islands (Mer, Erub and Ugar) are vulnerable to erosion due to their situation on exposed coastal flats;[114]

69.3 Communities on mud islands (Boigu and Saibia) are vulnerable to erosion where mangrove extent has decreased.[115]

70 As to RS [562], Mr Bettington gave evidence that there are "extensive intertidal wetland ecosystems dominated by mangrove forests" across the Torres Strait and, in particular, on the mud islands.[116] Mangroves moderate tidal movements *within* a wetland ecosystem

113 APP.0001.0009.0003 Exhibit A48, Bettington Report [_0039], [_0045]-[_0047], [_0053], [_.0057], [_0065].
114 APP.0001.0009.0003 Exhibit A48, Bettington Report [_0042]-[_0043].
115 APP.0001.0009.0003 Exhibit A48, Bettington Report [_0044], [_0047], [.0053], [_0065].
116 APP.0001.0009.0003 Exhibit A48, Bettington Report [_0050].

– that is, the dieback of mangroves is also a dieback in wetland extent. As such, the evidence demonstrates that harm and destruction of wetlands will result in erosion.

71 As to RS [563], Mr Bettington's evidence is that mangrove cover will decline with increased sea level rise.[117] Given the direct relationship between regional sea level rise, global temperature increase and continued GHG emissions (see [19] above), the logical conclusion from Mr Bettington's evidence is that the frequency and/or severity of mangrove dieback in the Torres Strait will be worse at 2°C of global warming than at 1.5°C.

Harm and destruction of ecosystems and non-human species

72 As to RS [565], the evidence of Mr Bettington and Professor Hughes should be accepted as it relates to the projected impact of climate change on mangroves, seagrass fields and dugongs:

72.1 As set out as [71] above, Mr Bettington's evidence is that mangrove extent in the Torres Strait will decline with increased sea level rise (and, by extension, continued GHG emissions and global warming).

72.2 Professor Hughes gave evidence that seagrass decline is causally related to impacts of climate change including intense marine heatwaves and sea level rise.[118] Specifically, Professor Hughes testified that, while the substantial diebacks of seagrasses in the Torres Strait documented since the 1970s cannot necessarily be attributed to climate change, the causes of diebacks in the present day are "increasingly linked to climate change."[119] The Respondent accepts that marine heatwaves and sea level rise will worsen in the Torres Strait with continued global temperature increase.[120]

72.3 Professor Hughes gave evidence that dugong populations are especially vulnerable to the impacts of climate change because of their dietary reliance on seagrasses.[121] Given the reasons stated above at [7272.2], Professor Hughes' evidence should be

117 APP.0001.0009.0003 Exhibit A48, Bettington Report [.0051].
118 APP.0001.0003.0095 Exhibit A43, Hughes Report [25]-[26]; TRN.0010.0920 9 November 2023, Professor Hughes, T987.9-22.
119 TRN.0010.0920 9 November 2023, Professor Hughes, T987.9-22.
120 RS [540] and [556].
121 APP.0001.0003.0095 Exhibit A43, Hughes Report [80].

accepted that dugongs will be placed at increased risk of population decline with continued global temperature increase.

Tipping points

73 The Applicants repeat the submissions at [16] and [20] above. In addition, the parties agree that:

73.1 Despite the uncertainty in the exact threshold, the risk of triggering a tipping point increases with global temperature increase;[122] and

73.2 The risk of triggering a tipping point – including total collapse of the Greenland and/or Antarctic ice sheets – that would cause catastrophic impacts for the Torres Strait in the long-term is lower if global temperature increase is stabilised at 1.5°C than at 2°C or higher.[123]

Stabilisation of long-term global temperature increase at 1.5°C minimises the most serious impacts of climate change in the Torres Strait

74 The Applicants' case is that, from at least 2014, the best available science has been that holding long-term global temperature increase to below 1.5°C will prevent or minimise many of the most dangerous projected impacts of climate change to small and low-lying islands such as the Torres Strait.[124]

75 As the Respondent accepts at RS [574], the evidence demonstrates that, if global temperature increase trends towards stabilisation at higher levels (2°C or more), Torres Strait Islanders will face more frequent and severe impacts than they would if temperatures were limited to 1.5°C.

76 Contrary to RS [575], the consensus that emerged in the best available science that stabilising global temperature increase at 1.5°C would mitigate or avoid the most dangerous impacts of climate change for small and low-lying islands predated the international *political* consensus reached in the Paris Agreement. The Applicants refer to [11] above as well as AS [83]-[85], [219.3], [322] and [330]-[345].

122 RS [215]; APP.0001.0003.0093 Exhibit A40, Karoly Report [125].
123 RS [571].
124 APP.0001.0015.0003 3FASOC [31]; See also AS [83]-[85], [219.3], [322], [330]-[345].

77 Throughout RS [573]-[579] and its submissions more generally, the Respondent accepts that the Torres Strait Islanders will experience significant impacts of climate change at and above 1.5°C and that, in general, these impacts become worse with global temperatures increase. The so called "unfortunate reality"[125] that climate change will cause significant climate impacts in the Torres Strait does not change the fact that, if warming is not stabilised at 1.5°C, the scope and severity of these impacts will be far worse.

78 The Applicants' response to AS [578] and [579] are at [111] and Part G below.

C. CQ15: APPLICABLE LAW

79 The Commonwealth submits that the *lex loci delicti* of the Applicants' causes of action is the ACT, because the ACT is the place where the Commonwealth set its Nationally Determined Contributions and made decisions concerning national infrastructure expenditure.[126]

80 Identifying the *lex loci delicti* involves "questions of characterisation which, notoriously, are matters on which judgments can and do reasonably differ."[127] On one hand, "it will usually be very important to look to where the defendant acted, not to where the consequences of the conduct were felt".[128] On the other, the tendency in some cases "has been to stress the place at which the activity of the defendant was directed, rather than the place where the activity complained of originated".[129]

81 The Applicants maintain that the most applicable law is the law of Queensland, where the Commonwealth's negligence "assumes significance".[130] Here, while it may be accepted that the determination of Australia's NDCs in Canberra had effect beyond that jurisdiction, the alleged breaches of the Alternative Duty of Care all concern failures to implement adequate infrastructure and other measures to prevent or minimise the impacts

125 RS [577].
126 RS at [28].
127 APP.0001.0020.0008 *Amaca Pty Ltd v Frost* (2006) 67 NSWLR 635, 640 [13] (Spigelman CJ).
128 APP.0001.0023.0203 *Dow Jones & Company Inc v Gutnick* (2002) 210 CLR 575, 606 [43] (Gleeson CJ, McHugh, Gummow and Hayne JJ).
129 APP.0001.0020.0008 *Amaca Pty Ltd v Frost* (2006) 67 NSWLR 635, 644 [39], quoting P E Nygh and M Davies, *Conflict of Laws in Australia*, (7th ed, 2002) 421 [22.6].
130 AS [171]; APP.0001.0020.0007 *Amaca v Frost* (2006) 67 NSWLR 635, 640 [15], [18] (Spigelman CJ), quoting APP.0001.0020.0045 *Distillers Co (Biochemicals) Ltd v Thompson* [1971] AC 458, 468; APP.0001.0020.0181 *Voth v Manildra Flour Mills Pty Ltd* (1990) 171 CLR 538, 567.

of climate change specifically in the Torres Strait Islands.[131] This tends to suggest that, at least for breaches of the Alternative Duty of Care, the *lex loci delicti* was in Queensland.

82 In any event, notwithstanding this difference of analysis, the Applicants agree with the Commonwealth's submission that no issue in the case turns on the applicable law.[132]

131 APP.0001.0015.0003 3FASOC at [82A].
132 RS [31].

PART 2. THE MITIGATION DUTY

D. CQ3: PRIMARY DUTY OF CARE

Totality of the relationship between the parties

83 The parties agree that the recognition of a duty of care requires consideration of the 'totality' of the relationship between the Commonwealth and Torres Strait Islanders (AS [178]–[179]; RS [40]). The parties also agree, or at least the Respondent does not deny, that the historical and contemporary context of Torres Strait Islanders' relationship with the Commonwealth informs that inquiry (AS [180]–[190], [558]; RS [46]).

84 The parties *dis*agree about the significance of that context, the assistance that can be gleaned from analogous and European cases, and the way in which international agreements frame the totality of the relationship. Most fundamentally, the parties disagree about the role of potential policy considerations at the duty stage. It is thus convenient to start with this 'trump'[133] card that the Commonwealth seeks to play.

Policy considerations

Policy considerations properly accommodated at the standard and breach stages, or 'scope of duty'

85 At the level of *principle*, the Applicants maintain that the fact that conduct alleged to constitute a breach of a duty of care in a particular case might raise policy considerations does not provide a reason not to recognise (or 'trump'[134]) the existence of the duty. Rather, policy considerations are best accommodated at the standard and breach stage of the analysis.

86 As the Applicants emphasised at AS [258], a majority of the High Court has said that: 'it is no answer to a claim in tort against the Commonwealth under s 75(iii) of the *Constitution* that its wrongful acts or omissions were the product of a "policy decision" taken by the Executive Government'.[135] That statement was made in response to, and

133 APP.0001.0020.0101 *Minister for Environment v Sharma* [2022] FCAFC 35; (2022) 291 FCR 311, [610] (Beach J).
134 APP.0001.0020.0101 *Minister for Environment v Sharma* [2022] FCAFC 35; (2022) 291 FCR 311, [610] (Beach J).
135 APP.0001.0020.0025 *Brodie v Singleton Shire Council* [2001] HCA 29; (2001) 206 CLR 512, [106] (Gaudron, McHugh and Gummow JJ, Kirby J agreeing).

rejection of, '[a]ppeals … to preserve the "political choice" in matters involving shifts in "resource allocation".'[136]

87 Accordingly, reference to policy considerations cannot categorically preclude the recognition of a duty. That is not to say that such considerations are irrelevant to liability, but any relevance is addressed at the breach stage. Policy considerations do not go to the existence of the duty, but may go to its scope.[137]

88 The idea that considerations of conflicting government priorities ought to inform the standard and breach analysis (or the scope of the duty), rather than categorically preclude the recognition of a duty is consistent with statements from:

88.1 Gummow J in *Pyrenees Shire Council v Day*;[138]

88.2 Kirby J in *Romeo*;[139]

88.3 A majority of the Court of Appeal of the Supreme Court of New South Wales in *Roads and Traffic Authority (NSW) v Refrigerated Roadways Pty Ltd*;[140]

88.4 Beach J in *Sharma*;[141]

88.5 UK authority, including *Vernon Knights Associates v Cornwall Council*;[142]

88.6 Academic commentators.[143]

89 The Applicants accept that statements can be found to the contrary. However, not all of the authority marshalled by the Respondent ought to be understood to require policy considerations to shut down the analysis at the duty stage. Many of those authorities are expressed in terms of a hesitancy to impose *liability* for particular acts (RS [53], [54]).

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136 APP.0001.0020.0025 *Brodie v Singleton Shire Council* [2001] HCA 29; (2001) 206 CLR 512, [106] (Gaudron, McHugh and Gummow JJ, Kirby J agreeing).

137 APP.0001.0020.0205 *Romeo v Conservation Commission of the Northern Territory* [1992] HCA 5; (1992) 192 CLR 431, [122], [138]–[140] (Kirby J).

138 APP.0001.0020.0131 *Pyrenees Shire Council v Day* [1998] HCA 3; (1998) 192 CLR 330, [183]–[184] (Gummow J).

139 APP.0001.0020.0205 *Romeo v Conservation Foundation of the Northern Territory* (1998) 192 CLR 431, [139] (Kirby J).

140 APP.0001.0020.0140 *Roads and Traffic Authority (NSW) v Refrigerated Roadways Pty Ltd* [2009] NSWCA 263; (2009) 77 NSWLR 360, [286] (Campbell JA, McColl JA agreeing).

141 APP.0001.0020.0101 *Minister for Environment v Sharma* [2022] FCAFC 35; (2022) 291 FCR 311, [633] (Beach J).

142 APP.0001.0020.0178 *Vernon Knights Associates v Cornwall Council* [2014] Env. L. R. 6, [49(iii)] (Jackson LJ, Dyson MR and Burnton J agreeing).

143 See the summary of developments in APP.0001.0023.0198 Mark Aronson, 'Government Liability in Negligence' (2008) 32 *Melbourne University Law Review* 44, 58–64.

That is a statement of conclusion reached on consideration of all the elements of negligence, rather than a conclusion based only on the duty inquiry.

90 The Applicants' approach – whereby policy considerations will not categorically immunise the Government from judicial oversight, but rather will affect the standard of care – should be preferred because: *first*, it is more consistent with 'the first principle is that the tortious liability of governments is, as completely as possible, assimilated to that of citizens';[144] *second*, it is consistent with the trend of judge-made administrative law context (AS [260], cf RS [79(d)]); and *third*, is consistent with the most recent large-scale law reform review of this issue, the Ipp Review.[145]

Policy considerations only relevant at duty stage if area of government responsibility is wholly political

91 In the alternative, if the Court accepts the Respondent's contention that the common law immunises certain areas of government responsibility from the imposition of a duty, the inquiry must proceed by reference to the terms of the duty and the 'area of government responsibility'[146] it seeks to attach to (not the 'class of government action' that is the subject of the posited breach: cf RS [49]). The reason the inquiry must proceed in this manner is so that the immunity does not extend beyond its rationale, or does not become overinclusive. The rationale for any immunity from the imposition of a duty, if it be recognised, must be that government action within this area of responsibility simply cannot be subjected to judicially manageable standards. That is what would warrant categorically immunising the whole area of government action from the imposition of a duty.

92 By contrast, if some, but not all, actions within an area of government responsibility entail policy considerations then the proper response is to factor that in at the standard and breach stage. The fact that some actions within a government area of responsibility may involve policy considerations might inform the 'scope of the duty'.[147] This approach avoids a blanket grant of protection from liability for an area of responsibility where

144 Cf APP.0001.0020.0065 *Graham Barclay Oysters Pty Ltd v Ryan* [2002] HCA 54; (2002) 211 CLR 540, [12] (Gleeson CJ).

145 See APP.0001.0022.0005 Commonwealth of Australia, *Review of the Law of Negligence: Final Report* (2002) [10.26].

146 To use the language of Gageler J in CTH.0007.0001.0001 *Brookfield Multiplex Ltd v Owners Corporation Strata Plan 61288* [2014] HCA 36; (2014) 254 CLR 185, [169].

147 APP.0001.0020.0205 *Romeo v Conservation Commission of the Northern Territory* [1992] HCA 5; (1992) 192 CLR 431, [139] (Kirby J).

some government actions *would be* amenable to judicially manageable standards. Any more generous approach to the Government would undersell on the promise of s 75(iii) of the Constitution (see AS [257]–[258]).

93 Here, the terms of the duty seek to attach it to government's actions in addressing harms to Torres Strait Islanders from climate change. That is the 'area of government action' that provides the proper unit of analysis. Once that unit of analysis is understood, it cannot be maintained that *all* action within that area of government responsibility should be immunised from the imposition of a duty. Some of those actions are plainly amenable to the imposition of judicially managed standards of reasonableness.

94 By contrast, on Allsop CJ's analysis in *Sharma* – on which the Respondent relies heavily (RS [44] and [588]) – the starting point for the analysis of the relationship was the statute. Indeed, the relationship was 'derived from the statute'.[148] It was thus primarily consideration of the statute that led Allsop CJ to conclude that the area of government responsibility over which a duty was sought to be imposed – namely, the approval of mines – was 'core policy' that ought not to be subject to a common law duty. The analysis is necessarily different here, where the area of government responsibility over which a duty is sought to be imposed is not set by the statute.

Government's action to protect Torres Strait Islanders from the harm of climate change should not be immunised from duties of care

95 In any event, at the level of *application*, the Applicants submit that the specific breaching conduct of which they complain is readily amenable to judicially manageable standards and thus, even if policy is relevant at the duty stage, is should not foreclose the recognition of a duty in this case. Even if the Respondent's approach is accepted, the question must be whether the conduct alleged to be a breach of duty is capable of being subjected to a 'criterion by reference to which a court can determine the reasonableness of [a government's] conduct'.[149] In this case, there is such a criterion – the best available science ([82(d)] and [82(f)] of the Applicants' pleading[150]).

148 APP.0001.0020.0101 *Minister for Environment v Sharma* [2022] FCAFC 35; (2022) 291 FCR 311, [218] (Allsop CJ).
149 APP.0001.0020.0065 *Graham Barclay Oysters Pty Ltd v Ryan* [2002] HCA 54; (2002) 211 CLR 540, [15] (Gleeson CJ).
150 APP.0001.0015.0003 3FASOC.

96 That brings this case into line with others in which a duty has proved judicially manageable because the conduct sought to be the subject of the duty was argued to be a departure from scientific, technical or expert advice.

97 *La Sucrerie* is one such case (AS [199]). There, a municipal authority was armed with extensive studies, and the advice of the conservation authority, into the risk of landslides, but chose to 'ignore' them – with catastrophic consequences.[151]

98 *Smaill* is another such case (AS [198]). There, the local Council had obtained a report from the Department of Scientific and Industrial Research noting the potential for geological instability in a particular area. The Council then asked for, and was provided with, more specific advice about the 'hazard zone'.[152] The Council, however, failed to take 'decisive action' in response to that advice and was held liable in negligence for that.

99 Examples could be multiplied, but the point for present purposes is that even where a government has competing responsibilities and must make difficult decisions entailing resource allocation about the response to a known natural threat it can be subjected to a duty where there is a scientific criterion by which to measure its response.

100 The best available science provides such a criterion, even on the Respondent's view that it comprises 'the leading sources of climate change science, accepted by a majority of the scientific community' (RS [189]). The Respondent accepts that the best available is ascertainable at a given point in time by reference to the contents of all reports published by the IPCC, as well as some reports, or some parts of the reports, published by the WMO, CSIRO, BOM, UNEP, CCA and AAS and the Australian State of the Environment Report 2021 (RS [190]–[194]). The Court should be satisfied that the science is exactly that, science, capable of providing an *objective* measuring stick by which to judge the reasonableness of the Respondent's conduct. Thus, even on the Respondent's approach to justiciability, the primary duty in this case is not one that is incapable of being subjected to judicially manageable standards.

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151 APP.0001.0020.0084 *La Sucrerie Casselman Inc v Cambridge (Township)* [2000] OJ No 4650, [5]–[6], [122], [125] (Morin J).

152 APP.0001.0020.0151 *Smaill v Buller District Council* [1998] 1 NZLR 190, 191.

Torres Strait Islanders' special relationship to the Commonwealth

101 As has been noted above, the Respondent does not deny that the historical and contemporary context of Torres Strait Islanders' relationship with the Commonwealth informs the duty inquiry (RS [46]). However the Respondent has not grappled with the fact that this historical context, in particular the unique disadvantage of Torres Strait Islanders (AS [558.6]) and the historical and contemporary posture of 'protection' adopted by the State to them (AS [180]–[190]), strongly tends towards the recognition of a 'special protective relationship'[153] akin to a neighbourly one.

102 The relationship at the centre of this case is far from that in issue in *Sharma*, where the asserted neighbourly obligation between the State and the children of Australia (or, once the 'pleader's construct'[154] was acknowledged, the entire population of Australia). That relationship was described by Allsop CJ as, 'one between the governing and the governed in a democratic polity'.[155] But the Respondent's unnuanced attempt to transpose Allsop CJ's words to the present context ought to be rejected. Of course it is true, but also of no assistance to the present inquiry, to say that the relationship between the Commonwealth and any subset of citizens is a relationship between the governing and the governed. The question must be whether that is *all* the relationship is.

103 Here, the Court is concerned with a relationship between the State and a small, uniquely disadvantaged, set of people in respect of whom the State has long recognised – including in treaty, statutes and case law – a *special* protective responsibility that differs from its responsibility to the citizenry more generally. It is true that that special protective relationship, existing as it does as a matter of history and contemporary social fact, cannot suffice alone to justify the imposition of a duty of care at law. But it does provide the 'social and legal context' within which to apply the salient features analysis.[156]

104 Part of that context includes the historical struggle for Indigenous land rights in this country, and the resulting legal developments as outlined at AS [184]. Contrary to the

153 APP.0001.0020.0101 *Minister for Environment (Cth) v Sharma* [2022] FCAFC 35; (2022) 400 ALR 203, [677] (Beach J).
154 APP.0001.0020.0101 *Minister for Environment (Cth) v Sharma* [2022] FCAFC 35; (2022) 400 ALR 203, [704] (Beach J).
155 APP.0001.0020.0101 *Minister for Environment (Cth) v Sharma* [2022] FCAFC 35; (2022) 400 ALR 203, [232] (Allsop CJ).
156 APP.0001.0020.0101 *Minister for Environment v Sharma* [2022] FCAFC 35; (2022) 291 FCR 311, [211] (Allsop CJ).

Respondent's assertion at RS [312], this is not irrelevant simply because the present claim is not made in the native title context.

Analogous duties

105 The Respondent makes three general submissions as to the 'limited use' to which the analogous cases from common law countries can be put (RS [625]–[628]).

106 *First*, the Respondent submits that none of the analogous cases concern the Commonwealth or Torres Strait Islanders. That submission appears to accept the Applicants' earlier submissions that there is something different, indeed unique, about the position of Torres Strait Islanders vis-à-vis the Commonwealth as compared to the relation between other public authorities and their constituents. The submission thus goes nowhere, at least nowhere to the Respondent's benefit.

107 *Second*, the Respondent attempts to distinguish the analogous cases on the basis that they concerned lesser, and more local, authorities than the Commonwealth. The significance of the point is elusive, at least insofar as it is made about duty. The Commonwealth like any other authority can be sued in tort, by reason of s 75(iii) of the Constitution (see AS [258]–[259]). The fact that the Commonwealth is a bigger (and better resourced) entity than a local council is thus properly accounted for at the standard and breach stage (AS [194], [264]), not by any suggestion that the case law concerning smaller authorities are in some way inapplicable to the Commonwealth.

108 *Third*, the Commonwealth submits, in essence, that each case must be determined on its own facts and on the salient features applicable to those facts. That much may be accepted. But the development of the law of tort, and in particular the recognition of novel duties of care, properly proceeds as an exercise in the drawing of analogies. Climate change is an unprecedented threat to humankind of a greater order of magnitude to any previous natural phenomenon or disaster – accordingly, any analogy with past cases must necessarily be imperfect. But what the cases *do* show is the law's preparedness to impose duties on government bodies to protect a specific class of people from natural disasters, the occurrence of which may not be in the government's control but the impacts of which may be.

109 The Applicants are otherwise content to rely upon their submissions in chief as to why these cases, together with the trend in nuisance cases (not engaged with by the Respondent at RS [641]), demonstrate the capacity of the law of tort to impose obligations on the State (in its various manifestations) to protect vulnerable communities within its territory against climactic risks of various magnitudes.

European case law

110 The Respondent contests the Applicants' reference to European case law, both as a matter of procedure and substance (AS [200]–[209], see also AS [371]–[374]).

111 As a matter of what are said to be 'technical questions of admissibility' (RS [645]), the Respondent asserts that this is a matter that ought to be the subject of expert evidence (RS [643]–[644]).[157] That might be true if the European materials relied on by the Applicants were statutory (as was in the authority cited by the Respondent on this point) or sought to be put before the court to prove the existence of a fact in issue. That is not the purpose to which the European cases are referred to. Rather, the *reasoning* in those cases is being relied upon – with appropriate caveats (AS [200]) – as capable of persuasively informing the proper development of the common law. That has long been a permissible use of foreign case law, especially when an Australian court is confronted with a novel claim. To provide just one example, in *Harriton v Stephens*, Crennan J referred to judgments from Israel, Germany, France and the Netherlands in the context of a novel wrongful life claim.[158]

112 As a matter of substance, the Respondent submits that the reasoning in the European judgments are of no assistance to the Court. That submission should be rejected, at least insofar as it is made categorically. As Gleeson CJ wrote extra-curially:

> Our law is increasingly aware of, and responsive to, the guidance we can receive from civil law countries. … The forces of globalisation tend to standardise the questions to which a

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157 The Respondent also takes a point about the fact the Applicants have relied upon unofficial translations of the judgments (RS [645]). That ought not to stop the Court drawing whatever assistance it can from the documents. The Respondent has had ample opportunity to investigate the provenance and veracity of the translations and has not suggested that they are fundamentally unreliable. The Applicants will file an affidavit providing further information about the provenance of the documents.

158 APP.0001.0023.0205 *Harriton v Stephens* [2006] HCA 15; (2006) 226 CLR 52, [236]–[238] (Crennan J, Gleeson CJ and Gummow JJ agreeing).

> legal system must respond. It is only to be expected that there will be an increasing standardisation of the answers.[159]

International agreements in framing the totality of the relationship

113 The Respondent argues at RS [589] – [592] that international agreements such as the UNFCCC and Paris Agreement reinforce its position that climate change is contributed to by all countries, but unlikely able to be solved by any one. However, the fact that individual states form part of a coordinated global action does not detract from their separate responsibilities required by these agreements. This was recently emphasised by the European Court of Human Rights in *Verein **Klimaseniorinnen** Schweiz and Others v Switzerland*:[160]

> For its part, the Court notes that while climate change is undoubtedly a **global phenomenon which should be addressed at the global level by the community of States, the global climate regime established under the UNFCCC rests on the principle of common but differentiated responsibilities and respective capabilities of States** (Article 3 § 1). This principle has been reaffirmed in the Paris Agreement (Article 2 § 2) and endorsed in the Glasgow Climate Pact (cited above, paragraph 18) as well as in the Sharm el-Sheikh Implementation Plan (cited above, paragraph 12). It follows, therefore, that **each State has its own share of responsibilities to take measures to tackle climate change and that the taking of those measures is determined by the State's own capabilities rather than by any specific action (or omission) of any other State** (see Duarte Agostinho and Others, cited above, §§ 202-03). The Court considers that a respondent State should not evade its responsibility by pointing to the responsibility of other States, whether Contracting Parties to the Convention or not.
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> (Emphasis added)

Salient features analysis

114 The parties agree on the role of the salient features analysis (AS [178]–[179]; RS [40]). However, the parties disagree on what those salient features reveal about the relationship between the Commonwealth and Torres Strait Islanders.

Foreseeability

115 The Respondent's submissions on foreseeability at the duty stage both overstate the demandingness of this consideration and understate the strength of the evidence, which

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159 APP.0001.0023.0197 A M Gleeson AC, 'Global Influences on the Australian Judiciary' (2002) 22 *Australian Bar Review* 184, 188.

160 APP.0001.0023.0001 *Verein Klimaseniorinnen Schweiz and Others v Switzerland* (Application no. 53600/20) [2024], [442].

if anything is stronger than the evidence in *Sharma* that satisfied Allsop CJ and Beach J.[161]

116 As to the framing of this consideration, the correct inquiry asks whether careless conduct *of any kind* on the part of the Respondent *may* result in harm *of some kind* to the Applicants.[162] While the Respondent at first accepts that formulation as a matter of principle (RS [82]), in applying the test of reasonable foreseeability to the facts at the duty stage, it focuses on the specific carelessness alleged by the Applicants, that is, the alleged breach of duty by reference to the standard of care (RS [663]).

117 The Respondent also understates the evidence on foreseeability, which is summarised in the Applicants' primary submissions (AS [213] and, in the context of knowledge, AS [228] – [235]) and flows from the best available science of which the Respondent was aware (AS [228]). The best available science reveals that failure by individual nation states to ambitiously reduce emissions would each contribute to the climate change and its impacts,[163] including on low-lying islands like the Torres Strait.[164] It was perfectly foreseeable that any breach by the Respondent of its duty in this regard would contribute in some way to the catastrophic harms that were expected to be experienced by the Torres Strait (and in fact are being experienced).

118 In answer to that logic, the Respondent seeks to repeat a submission that was made and properly criticised by Allsop CJ in *Sharma*. There, on the topic of foreseeability at the duty stage, the Minister submitted: 'that the emissions in question will increase the risk of harm by increasing in a small or tiny amount overall temperature denies … the imposition of a duty'.[165] Allsop CJ responded:

> With respect, such does not necessarily follow. That it can never be proved that a small contribution to the risk was the contribution which caused the harm is no reason for not imposing a duty to act reasonably not to increase the risk if there is a real and not fanciful possibility that the contribution in question may cause or materially contribute to the harm. It may be an answer for an employer who negligently exposes workers to asbestos for a very short period of time to say that causation of harm cannot be proved. It is not an answer, however, to the imposition of a duty of care to say that the employer only ever intended to employ them for a short period of time in which they would be exposed to

161 APP.0001.0020.0101 *Minister for Environment v Sharma* [2022] FCAFC 35; (2022) 291 FCR 311, [332] (Allsop CJ),[423] (Beach J).
162 APP.0001.0020.0101 *Minister for Environment v Sharma* [2022] FCAFC 35; (2022) 291 FCR 311, [417] (Beach J).
163 See, e.g., APP.0001.0004.0015 at 54 [_0053].
164 See the best available science summarised at AS [219].
165 APP.0001.0020.0101 *Minister for Environment v Sharma* [2022] FCAFC 35; 291 FCR 311, [328] (Allsop CJ).

> asbestos. That short exposure would increase their risk of contracting a deadly and painful disease by a tiny amount. At the level of duty, causation does not have to be proved, but some causal relationship between the act and the harm looking forward must be real and not fanciful. A contribution to the risk of harm occurring can be seen as part of that relationship. It may not be the whole of that causal relationship. At this level of generality and at this level of abstraction, the real question for the imposition of the duty or not is whether the increase in risk of the harm from this act can be seen to be so small that it is not reasonably foreseeable, that is, it is not real but is fanciful, that the act will or may have any causal relationship to harm to the Children in the future.[166]

119 There is nothing fanciful about the idea that a failure by the Commonwealth to set ambitious emissions targets by reference to the best available science *may* result in harm to Torres Strait Islanders. In fact, that was not just foreseeable but predicted in light of the known vulnerability of Torres Strait Islanders by reason of the low-lying islands. The fact that there was some uncertainty about tipping points does not render fanciful that which was predictable and potentially catastrophic (cf. RS [665]).

Control and knowledge

120 It cannot seriously be the position of the Respondent that it has *no* control over the rate and severity of anthropomorphic climate change, and thus its impacts. Indeed, the Respondent apparently accepts that it does make *some* contribution to global warming and (obviously) has the power to set targets and control its own emissions (RS [681(a) and (b)]). Accordingly, the Respondent falls back on a well-worn submission in mass tort cases, that the control of the risk is fragmented and that the Respondent is only responsible for a small part of it (RS [678]). That may be accepted, but the common law is not so unresponsive to wicked problems like climate change as to be incapable of singling out individual actors for responsibility, as Beach J acknowledged in *Sharma*[167] and in New Zealand in the causation context.[168] The question is ultimately one of degree.

121 Australia is a high-emitting country in per capita terms; is wealthy enough to be significantly more capable of reducing emissions than developing countries; contributes a meaningful amount to annual global GHG emissions; and is an important contributor to cooperative target setting between countries (AS [237]–[239]). Indeed, Australia understands itself to have control over climate change and to be acting for that purpose

166 APP.0001.0020.0101 *Minister for Environment v Sharma* [2022] FCAFC 35; 291 FCR 311, [329] (Allsop CJ, emphasis added).
167 APP.0001.0020.0101 *Minister for Environment v Sharma* [2022] FCAFC 35; 291 FCR 311, [641] (Beach J).
168 APP.0001.0020.0153 *Smith v Fonterra Co-operative Group Limited* (2024) NZSC 5, [155] (Williams and Kós JJ, for the Court).

(AS [238]). In those circumstances, it should not be accepted that the Respondent has insufficient control over this risk to be liable for what would otherwise be negligent acts in respect of it.

122 The Respondent otherwise appears to largely accept the Applicants' submissions on knowledge (RS [674]–[677]).

Vulnerability and degree of harm

123 The Respondent's submissions on vulnerability proceed on the assumption that loss of fulfilment of *Ailan Kastom* is not compensable (RS [667], [669(b)]). If the converse is true, it appears that the Respondent would accept that Torres Strait Islanders *are* especially vulnerable to the Respondent's want of reasonable care.[169]

124 Otherwise, the Respondent submits that the Applicants' submissions on vulnerability must be subject to two points of 'qualification' (RS [673]).

125 *First*, the Respondent submits without explanation that Torres Strait Islanders are only vulnerable in a 'generalised sense' and not to any specific harms flowing from the Respondent's want of reasonable care (RS [667], [671]). That is to ignore the Respondent's admission that small and low-lying islands are 'vulnerable', 'at risk' and 'very sensitive' to the impacts of climate change[170] and that Torres Strait Islanders (as a group of Indigenous people) 'are more vulnerable to the impacts of climate change than other people'.[171] There is thus nothing general about the Applicants' vulnerability to the impacts of climate change, which impacts will be more severe and more frequent as a result of the Respondent's want of care.

126 To take an example responsive to the Respondent's complaint about property damage (RS [668]), Torres Strait Islanders' houses, gardens and chattels are especially vulnerable to damage by any increase in the severity and frequency of inundation events. Further, Torres Strait Islanders living outside the Torres Strait also remain vulnerable to loss of fulfilment of *Ailan Kastom*. Thus, unlike in *Sharma,*[172] Torres Strait Islanders are

169 CRT.2000.0003.0001 Defence [62B(a)].
170 CRT.2000.0003.0001 Defence [28(a)], [59(b)]; RS [669(a)].
171 CRT.2000.0003.0001 Defence [29(b)].
172 APP.0001.0020.0101 *Minister for Environment v Sharma* [2022] FCAFC 35; (2022) 291 FCR 311, [7] (Allsop CJ).

uniquely unable to protect themselves from the consequences of the Respondent's want of reasonable care.

127 *Second*, unlike in *Sharma*, the Respondent seeks to partially shift some of the responsibility for action onto Torres Strait Islanders (RS [666], [670]). However, the Respondent fails to expressly defend the normative assumption underlying that submission: that it is *reasonable* to expect Torres Strait Islanders to protect themselves from the impacts of climate change.[173] Put differently, the question is whether any ability on the part of the Applicants to protect themselves would '*justify* the [Respondent] ignoring the risks of harm'.[174] Once the special disadvantage of Torres Strait Islanders is accepted (RS [961(d)]), together with the 'social, political or economic restraints' operating on them,[175] and the nature of the threat from climate change, it cannot be said to be reasonable to expect them to protect themselves from the want of reasonable care on the part of the Respondent. In this regard, it is to be recalled that the Applicants need only show that they have 'little' capacity to protect themselves,[176] not that they are 'entirely' unable to (cf. RS [670] 'no steps').[177] The fact that the Applicants might have been able to reduce their exposure to risk 'to some extent' is not a complete answer.[178]

Reliance and assumption of responsibility

128 The Respondent's submissions on reliance attempt to divorce it from the practical realities of life in the Torres Strait. So too do the submissions tend to ignore the interrelation of reliance (and assumption of responsibility) with the other salient feature of vulnerability. The special vulnerability of Torres Strait Islanders (or even, less controversially, their relative disadvantage), should lead the Court to more readily infer that Torres Strait Islanders rely upon the Commonwealth to protect them from the harms

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173 APP.0001.0020.0036 *Crimmins v Stevedoring Industry Finance Committee* [1999] HCA 59; (1999) 200 CLR 1, [91] (McHugh J, Gleeson CJ agreeing at [3]) quoting Todd, "Liability in Tort of Public Bodies", in Mullany & Linden (eds), *Torts Tomorrow – A Tribute to John Fleming* (1998) 36, 55.

174 APP.0001.0020.0036 *Crimmins v Stevedoring Industry Finance Committee* [1999] HCA 59; (1999) 200 CLR 1, [109] (McHugh J, Gleeson CJ agreeing at [3], emphasis added).

175 APP.0001.0020.0189 *Woolcock Street Investments Pty Ltd v CDG Pty Ltd* [2004] HCA 16; (2004) 216 CLR 515, [80] (McHugh J).

176 APP.0001.0020.0036 *Crimmins v Stevedoring Industry Finance Committee* [1999] HCA 59; (1999) 200 CLR 1, [100] (McHugh J, Gleeson CJ agreeing at [3]).

177 APP.0001.0020.0189 *Woolcock Street Investments Pty Ltd v CDG Pty Ltd* [2004] HCA 16; (2004) 216 CLR 515, [35] (Gleeson CJ, Gummow, Hayne and Heydon JJ).

178 APP.0001.0020.0036 *Crimmins v Stevedoring Industry Finance Committee* [1999] HCA 59; (1999) 200 CLR 1, [109] (McHugh J, Gleeson CJ agreeing at [3]).

of climate change, and that they do so to a greater extent than other segments of the population.

129 A finding of reliance and assumption of responsibility is also supported by the fact that the Respondent has entered into a solemn international commitment to protect the traditional way of life of the Torres Strait Islanders (AS [246]). The question here is not about the extent to which that treaty creates an enforceable *legal* obligation with an individual Torres Strait Islander (cf. RS [685]), but rather whether as a matter of *logic or fact* that sort of commitment is one that might lead Torres Strait Islanders into greater reliance on the Commonwealth than other groups in respect of which no such commitment has been made. Put simply, Torres Strait Islanders were entitled to think that the Respondent assumed special responsibility for them, as its other public statements express (AS [247]) and as is reflected in its funding priorities (AS [248]).

130 The Applicants refer also to their submissions below at [132]

Determinacy

131 The Respondent seeks to establish indeterminacy in two respects, neither of which should be accepted. The Respondent points to the 'very broad range of both current and projected impacts of climate change' (RS [698]). But the Respondent is not responsible for *all* of the impacts of climate change, just those that can be attributed (by the usual causal analysis) to the Respondent's lack of care. Further, the fact that the harm flowing from the Respondent's want of care may be wide-ranging does not mean that it is indeterminate in the relevant sense, it is only if it cannot realistically be calculated.[179]

Coherence

132 The Respondent makes two submissions on coherence. *First*, it is said that the imposition of a duty of care would be inconsistent with s 10 of the *Climate Change Act 2022* (Cth) (RS [702]). That is incorrect. Section 10 sets a baseline target of net zero by 2050, it does not prohibit more ambitious targets or actions.

133 *Second*, the Respondent submits that the imposition of a duty of care would 'appear to result in some incoherence' with Australia's international commitments under the Paris

[179] APP.0001.0020.0123 *Perre v Apand Pty Ltd* [1999] HCA 36; (1999) 198 CLR 180, [107] (McHugh J).

Agreement (RS [703]). If such international commitments are to be considered in the context of coherence, they are consonant with and reinforce individual state responsibilities in combating climate change (see above at [113]).

E. CQ4: STANDARD OF PRIMARY DUTY OF CARE

Reasonable foreseeability

134 In relation to foreseeability, the Applicants refer to and repeat their submissions above at [115]-[119].

Negligence calculus

Probability and seriousness of harm

135 That the precise nature and severity of climate change impacts in the Torres Strait was not measurable at each point of alleged breach does not reduce the weight to be given to the probability of harm in considering the negligence calculus. As set out at AS [284] – [285], the best available science was that there was a significant probability of harm. The Commonwealth was aware of the best available science.

136 In any event, any uncertainty regarding the probability of harm arising from the conduct of other states should be treated conservatively consistent with the Precautionary Principle in Article 3 of the UNFCCC, due to the catastrophic nature of the potential harm.

137 The Applicants reject the Respondent's attempt at RS [714] to minimise the consideration to be given to the magnitude of harm a) to Torres Strait Islanders as distinct from the general population, and b) as a result of its alleged breach, in the negligence calculus.

137.1 The Respondent continues to ignore the heightened and unique consequences for Torres Strait Islanders due to the gravity, frequency and imminence of harm as set out at AS [287] – [301]. Instead of engaging with this detailed evidence, the Respondent dismisses it with the axiomatic acknowledgment that 'climate change poses significant risks for all people' (RS [714]).

137.2 For the reasons set out at section H of the Applicants' submissions (summarised at AS [445] and distilled on this point at [460]), the Commonwealth is not entitled to

> reduce the seriousness of harm to be factored in the negligence calculus in the way it alleges at RS [714] and [659] – [665]. As explained at AS [449] – [450], the harm results from "the cumulative operation of factors … in circumstances in which the contribution of each factor to that harm is unascertainable."[180]

138 At RS [713] the Respondent notes the incorrect citation for the last sentence at AS [284.1] regarding knowledge of tipping points in 2007. The correct document citation for that sentence is the IPCC's AR5 Synthesis Report from 2014,[181] not AR4 from 2007, meaning it should be read as part of AS [284.2].

Burden of taking precautions and countervailing responsibilities

139 It is clear from RS [716] – [719] and [727] that the Respondent misapprehends the Applicants' submission on the burden of taking precautions at AS [307] – [308]. The point is that the Commonwealth had the best available science readily available to it.

140 Indeed, the Respondent (at RS [730] – [732]) agrees generally with the characterisation of the reasonable person in its position as a developed international state actor. However, being a representative democracy, with all the responsibilities that come with it, has not prevented courts from finding duties of care owed by governments before.[182] It cannot be claimed as a wholesale bar to setting the standard without considering the specific circumstances of the case. As McMeekin J said in *Kelly v Queensland*:[183]

> That the defendant had many other conflicting responsibilities is plainly relevant. It can no doubt be legitimately said that the defendant's responsibilities covered the entire State and so were indeed vast. But the legitimate focus here must be on its management of Fraser Island.

141 The consideration of conflicting responsibilities in the negligence calculus was not codified in the CLA,[184] which the Applicants say applies here. However, in the event the common law test is found to apply, the Commonwealth should not be permitted from

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180 APP.0001.0020.0160 *Strong v Woolworths Ltd* (2012) 246 CLR 182, 194 [25] (French CJ, Gummow, Crennan and Bell JJ).

181 APP.0001.0007.0115, 72 [_0079], (Box 2.4).

182 See, for example APP.0001.0020.*0053 Electro Optic Systems Pty Ltd v State of New South Wales; West v State of New South Wales* (2014) 10 ACTLR 1; APP.0001.0020.0170 *Trevorrow v South Australia (No 5)* [2007] SASC 285. See also international cases discussed at AS [206] – [208].

183 APP.0001.0023.0206 *Kelly v Queensland* [2013] QSC 106.

184 Section 9(2) instead requires consideration of the social utility of the activity that creates the risk of harm (see AS [277(d)]).

proffering its position in the global energy market as a legitimate 'countervailing responsibility'.

142 Further, the Respondent's focus (at RS [720]-[727] and throughout) on reducing the group members in this proceeding – a specially vulnerable group with whom the Commonwealth has a unique relationship dating back to unlawful settlement – to a subgroup of the general population like any other demographic, is inappropriate. The fact that other members of the Australian electorate might also have an interest in the Respondent's conduct on GHG emissions is irrelevant. The devastating circumstances giving rise to the primary duty of care have the effect that the Commonwealth owes Torres Strait Islanders heightened consideration compared to the general population when it comes to climate change. Comparing the relationship of the parties to that of 'the governing and the governed' ignores these circumstances. This case is far narrower: it is about Torres Strait Islanders, the Commonwealth of Australia, and the existential threat Torres Strait Islanders face from the impacts of climate change.

Additional considerations: the Best Available Science

143 The applicants reject the Respondent's analysis of the standard of care at RS [733]. As above at [23], it is not the Applicants' case that by virtue of the Commonwealth's breaches in failing to set best available science targets, a person in the position of the Respondent must have regard *only* to the best available science in formulating a response to the risk.

144 The correct position, as set out at AS [312], is not that a reasonable person is prohibited from considering other matters, but that they would utilise the best available science in formulating a response to the risk. For example, it was unreasonable for the Respondent to set an emissions target without even attempting to grapple with how that target would contribute to stabilising global temperature increase to the level identified in the best available science as preventing the most dangerous impacts of climate change to the Torres Strait, being 1.5°C.

145 The Applicants do not rely on international agreements as the source of rights and obligations the subject of this proceeding, contrary to RS [735] – [736]. Rather, the UNFCCC materials and Paris Agreement serve as independent standards of reasonableness, generally reflecting the best available science, that inform the standard

of care. This accords with the recent decision of the European Court of Human Rights in ***Klimaseniorinnen***[185] on 9 April 2024. In that case, the court used both the UNFCCC and Paris Agreement, and the best available science,[186] to inform the standard of care required by members of the Convention to set national targets based on carbon budgets 'in line with the overarching goal for national and/or global climate-change mitigation commitments'[187] and to update those targets 'based on the best available science'.[188] The Respondent's assertion that the UNFCCC only requires signatories to have regard to best available science in GHG emissions reporting[189] selectively ignores Article 4, Clause 1 of the Paris Agreement, which relevantly provides:

> In order to achieve the long-term temperature goal set out in Article 2, Parties aim to reach global peaking of greenhouse gas emissions as soon as possible, recognizing that peaking will take longer for developing country Parties, and to undertake rapid reductions thereafter in accordance with best available science…[190]

146 Further, while international agreements often reflect the best available science, they are not of themselves the best available science. As such, the broad temperature goals set out in such international agreements are distinct from the Applicants' relevant Global Temperature Limit as defined in their pleading:[191]

> From at least 2014, the Best Available Science has been that holding the long-term Global Temperature Increase to below 1.5C would prevent or minimise many of the most dangerous Projected Impacts of Climate Change **to small and low-lying islands, such as the Torres Strait Islands**.
>
> (Emphasis added)

Throughout its submissions, the Respondent continually redirects focus from the pleaded definition it must meet, to a more general temperature goal. A closer look at the best available science shows the picture is different for small and low-lying islands (see AS [320] – [323]).

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185 APP.0001.0023.0001 *Verein Klimaseniorinnen Schweiz and Others v Switzerland* (Application no. 53600/20) [2024].
186 APP.0001.0023.0001 *Verein Klimaseniorinnen Schweiz and Others v Switzerland* (Application no. 53600/20) [2024], [546].
187 APP.0001.0023.0001 *Verein Klimaseniorinnen Schweiz and Others v Switzerland* (Application no. 53600/20) [2024], [550(a)], [570].
188 APP.0001.0023.0001 *Verein Klimaseniorinnen Schweiz and Others v Switzerland* (Application no. 53600/20) [2024], [550(d)].
189 RS [738].
190 APP.0001.0006.0017 at [0005], Paris Agreement.
191 APP.0001.0015.0003 3FASOC [31].

The reasonable response

147 The Respondent purports to introduce the conduct of other nations as a benchmark for a reasonable response (RS [746]). Aside from the fact that such conduct is increasingly being impugned by courts around the world,[192] as above, the Applicants submit this Court should instead measure the reasonable response by the standard of conduct agreed by and expected of nations, found in international agreements reflecting the best available science.[193] The Commonwealth raises the analogy of evidence of other medical practitioners in a medical negligence case. To continue this metaphor, the Applicants contend that evidence of professional medical guidelines would be more useful in assessing the standard of care in such circumstances (especially where evidence of other practitioners suggests medical negligence is widespread in the industry).

148 At RS [749] the Commonwealth fundamentally misapprehends the standard of care as pleaded. The steps required of a reasonable person in the position of the Respondent at [82(a)-(b)] of the Applicants' pleading involves identifying climate impacts and risks in the Torres Strait. That is because the duty alleged in the case is in relation to Torres Strait Islanders – it does not allege it must be the sole consideration.

F. CQ7 & 8: BREACH OF PRIMARY DUTY OF CARE

149 At RS Part E.4.3, the Respondent lists various ways in which it considers its response to the risk as reasonable. As set out above, and in the Applicants' primary submissions, the standard of care at [82(d)] requires identification of an emissions target consistent with the best available science. This did not occur,[194] rendering the Respondent in breach of the primary duty of care.

150 Insofar as the above reasons cited by the Respondent relate to 'competing duties' and the focus of the international community on temperature goals (as distinct from the pleaded

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192 See **The Netherlands**: APP.0001.0020.0157 *State of the Netherlands (Ministry of Economic Affairs and Climate Policy) v Stichting Urgenda* (2019) ECLI:NL:HR:2019:2007 (official translation) (Supreme Court of the Netherlands, Civil Division); **Germany**: APP.0001.0023.0207 *Neubauer and Others v. Federal Republic of Germany* BVerfG, Order of the First Senate of 24 March 2021 - 1 BvR 2656_18; **France**: APP.0001.0020.0118 *Notre Affaire à Tous and Others v France (2nd Decision)* [2021] No 1904967 1904968 1904972 19049764-1 Unoff Transl (Administrative Court of Paris); **Belgium**: APP.0001.0020.0175 *VZW Klimaatzaak v Kingdom of Belgium & Others* [2023] Belgium, Court of Appeal (unofficial translation); **Switzerland**: APP.0001.0023.0001 *Verein Klimaseniorinnen Schweiz and Others v Switzerland* (Application no. 53600/20) [2024] European Court of Human Rights.

193 AS [311], [330] – [345]. See also above at [113].

194 AS [381], [3884] – [385], [397] – [398], [404] – [405], [408].

Global Temperature Limit),[195] the Applicants refer to their submissions addressing these matters at Part G above.

151 As set out above at [147], the targets of other nations[196] cannot take the Commonwealth anywhere in establishing the reasonableness of its response. To the extent that the Respondent relies on evidence of global trajectories being inconsistent with the global temperature limit in 2020[197] and 2022,[198] the Applicants note this carries even less weight in circumstances where the IPCC had already also determined that 1.5C should be the relevant temperature threshold to avoid the most dangerous impacts of climate change at the global level in 2018. This finding has been endorsed by all Parties to the UNFCCC, including Australia, in COP decisions.[199]

152 The Respondent also cites the following in support of the contention that its response was reasonable in setting the targets:

152.1 *The target range suggested by the CCA in its 2014 report was not a best available science target*.[200] The Applicants refer to and repeat paragraph [10.2] above.

152.2 *Prof Meinshausen's analysis was based on hindsight and therefore irrelevant*.[201] The Applicants refer to and repeat paragraph [27]-[30].

152.3 *Alternatively, Prof Meinshausen stated setting targets was a policy decision*.[202] The Respondent takes Professor Meinshausen's testimony out of context. While Professor Meinshausen agrees that "there's no single formula… by which emissions should allocated",[203] he also offers the qualification that "the role of climate science is to quantify these different proposals" which "is what [he] did in categorising this broad range in terms of the three different allocation rules that are broadly representative of the range that has been put forward in international negotiations and in the domestic context."[204]

195 RS [753(a), (b)], [758(a)], [759(a)], [761(a), (c)].
196 RS [753(g)], [758(d)], [759(d)], [761(c)].
197 RS [758(d)].
198 RS [761(h)].
199 AS [344].
200 RS [753(e)].
201 RS [753(c)], [758(c)], [759(c)].
202 RS [753(d)], [758(c)], [759(c)], [761(d)].
203 TRN.0013.1118, examination of Professor Meinshausen [1126:29-34].
204 TRN.0013.1118 14 November 2023, Professor Meinshausen T1128.14-19.

152.4 *The Commonwealth is still within the 2014 CCA recommended budget.*[205] However, the standard at [82(d)] requires positive identification of a best available science target. Regardless, according to the CCA Report, the rate of annual emissions implied by a 2030 target of 40% compared to 2000 levels (i.e., 45% compared to 2005 levels) would likely cause significant exceedance of the CCA's proposed national carbon budget were that rate continued over time.[206] This could only be remedied by steeper reductions after 2030, and net zero at a sooner date, for which there would be grave feasibility concerns (as illustrated by Professor Meinshausen's analogy of a car halting its momentum at the edge of a cliff).[207] Given that Australia's initial and updated 2030 targets are less ambitious than the CCA's minimum recommendation, these feasibility concerns are even stronger. This is reinforced by footnote 1158 of the Respondent's submissions, which relies on Dr Canadell's evidence to estimate that, in the period 2014 to 2022, the Commonwealth had used approximately 55.4% of the CCA's proposed national budget to 2050 to limit global warming to 2°C. If anything, the Respondent's reliance on the fact that it has not yet exhausted the CCA's recommended budget for the period 2014 – 2050 demonstrates that its emissions reduction policy to 2050 is not, and has never been, developed by reference a science-based approach for limiting global temperature increase to any particularly level.

153 The Applicants make further submissions in respect of specific breaches from [157].

154 Regarding Professor Meinshausen's evidence generally, the Respondent suggests at RS [304] that his evidence is only relevant if the Respondent was "obliged" to utilise one of the three broad approaches to calculate its targets. This is imprecise and logically flawed. It is unclear in what sense the Respondent uses the term "obliged." The Applicants submit that the existence of a domestic or international legal obligation to adopt a particular approach to setting an emissions reduction target is not a precondition to the Court finding that the Commonwealth breached the Primary Duty of Care by failing to set a target in accordance with the best available science. Further, Professor Meinshausen's evidence is relevant to the extent that it outlines the best available science in respect of

205 RS [753(f)].

206 APP.0001.0004.0015 CCA, *Reducing Australia's Greenhouse Gas Emissions – Targets and Progress Review: Final Report* (February 2014), [_0124].

207 See AS 133.1, which refers to TRN.0013.1118 14 November, Professor Meinshausen, T1147:1-17.

the preparation global CO_2 budgets, global cumulative remaining GHG emissions and domestic shares of each to limit global warming to 1.5°C. This is necessary to establish that the Commonwealth ought to have prepared its emissions reduction target for 2030 consistent with the best available science to satisfy the standard of care.

155 Contrary to the submission at RS [305], [758(b)], and [759(b)], it is not necessary for Professor Meinshausen to calculate hypothetical targets according with the dates of alleged breach in August 2015, 2020 and 2021. Given the Commonwealth maintained the initial 2030 target until May 2022 and cumulative remaining GHG emissions consistently decreased with continued emissions activity in that period (i.e. emissions were not added back in this period), it can be inferred that the Commonwealth's emissions reduction targets at each of these dates were inconsistent with targets derived from the methodologies outlined in Professor Meinshausen's report.

156 In respect of RS [760], the Applicants refer to [132] above.

2030 Target

157 The Applicants wholly reject the assertion at RS [754] – [755] that the Taskforce considered the best available science in reaching the 2030 Target:

157.1 The Applicants' primary submissions set out the glaring absence of the consideration of climate science in the Taskforce Report at AS [389]-[392]. Ms Pearce admitted that the Taskforce Report included only one reference to climate science and zero to any IPCC Report.

157.2 The climate science cited in the Issues Paper[208] that the Commonwealth relies on consists of a handful of high-level sentences. There is no meaningful engagement with the climate science.

157.3 While Ms Pearce stated that the Commonwealth accepted the climate science, she could not identify in the Taskforce Report where the Commonwealth actually considered or engaged with the climate science in any meaningful way.[209]

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208 R16.4 EVI.2001.0001.2517 at [.2519].
209 AS [389] – [392].

157.4 While Ms Pearce asserted that the Climate Change Authority's reports were "part of mix" in the Taskforce Report, only the *lowest* possible recommended target was incorporated, and that was the *highest* of six targets considered.[210] The 2030 Target fell well outside the lowest end of the emissions reduction range recommended by the Climate Change Authority Report, which it advised was appropriate for limiting Global Temperature Increase to 3°C.[211]

The examples identified by the Respondent serve to highlight that the Commonwealth went about setting an emissions reduction target without using climate science as a meaningful input.

158 Further, the Respondent cites no evidence to support the bald assertion at RS [756] that the 2015 NDC explains how it was fair and ambitious or contributed towards achieving the objectives of the UNFCCC.

Updated 2030 Target

159 Although the Respondent suggests the Updated 2030 Target was set having regard to the best available science,[212] the target remains below the lowest end of the emissions reduction range recommended by the Climate Change Authority Report, which it advised was appropriate for limiting Global Temperature Increase to 3°C.[213]

160 The Commonwealth also places undue emphasis on Dr Canadell's evidence about the Updated 2030 Target as consistent with "well below 2°C" and that Australia was "doing enough to meet the well below two degrees goal with its nationally determined contributions" when considering the 43% target plus the net zero 2050 target.[214] However, Dr Canadell did not undertake a specific assessment of the 2030 and net zero targets, in light of any carbon budget. He did not engage with the critical question of whether the relevant carbon budget had been exceeded.

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210 EVI.2001.0001.2517 at [2458].

211 APP.0001.0015.0003 3FASOC, particulars to [47]. The lowest end of the range from the APP.0001.0004.0015 Reducing Australia's Greenhouse Gas Emissions – Targets and Progress Review (2014) was 40% on **2000** levels. As noted in the EVI.2001.0001.2517 Taskforce Report at [2458], this translates to a 45% reduction on **2005** levels. 26-28% below 2005 levels falls far short of 45%.

212 RS [761(f)].

213 APP.0001.0015.0003 3FASOC, particulars to [47]. The lowest end of the range from the APP.0001.0004.0015 Reducing Australia's Greenhouse Gas Emissions – Targets and Progress Review (2014) was 40% on **2000** levels. As noted in the EVI.2001.0001.2517 Taskforce Report at [2458], this translates to a 45% reduction on **2005** levels. 43% below 2005 levels falls short of 45%.

214 RS [761(g)].

161 The Commonwealth contends at RS [761(e)] that, on Professor Meinshausen's grandfathering analysis, its Updated 2030 Target in 2022 did not *yet* constitute a breach of the budget, although it would be breached in the near future. The Applicants repeat AS [408.1] and submit that the unprecedented and unfeasible rate at which emissions would need to fall after 2030 is tantamount to an inevitable breach of the budget. As Professor Meinshausen said in his evidence:

> The analogy is a little bit –if you see a car racing with 100 kilometre per hour towards the cliff and you stop the movie 10 metres before the car runs over the cliff, and then you ask a question "is the car in the scene consistent with the car not going over the cliff", then you could say from what I see the car is 10 metres away from the cliff, but the speed at which it goes, as soon as you start the movie again, there's no feasible pathway with which the car could stop then before the cliff. And that is similar to the 43 per cent target. Yes, it has not completely reached the budget, but since we then have only one year of emissions afterwards remaining, it is with, I would say, fairly high certainty that we can say the target in 2030 is inconsistent because it sets us on the path that does not allow us to stay within the budget because we would cross it then a few years later.[215]

162 Therefore, the Updated 2030 Target was a breach of the primary duty. It has not been corrected, and thus constitutes an ongoing breach, contrary to RS [763]. The Commonwealth has not led any evidence to suggest this target reflects 1.5C as required by the standard of care.

G. CQ11 & 12: CAUSATION – BREACH OF PRIMARY DUTY OF CARE

Common law principles regarding causation

163 As above, the Applicants maintain the law of Queensland applies to this proceeding. However, if, as the Commonwealth submits,[216] the *lex loci delicti* for the breach of the Primary Duty of Care is the common law of Australia, the applicable principles of causation are in substance the same as those under the *Civil Liability Act 2003* (Qld). As the High Court unanimously said in *Wallace v Kam*:[217]

> The common law of negligence requires determination of causation for the purpose of attributing legal responsibility. Such a determination inevitably involves two questions: a question of historical fact as to how particular harm occurred; and a normative question as to whether legal responsibility for that particular harm occurring in that way should be attributed to a particular person.

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215 TRN.0013.1118 14 November 2023, T1147:5-16.
216 RS [29].
217 APP.0001.0020.0182 (2013) 250 CLR 375, 381 [11] (French CJ, Crennan, Kiefel, Gageler and Keane JJ).

164 These two questions are reflected in sub-sections 11(1)(a) and (b), respectively, of the *Civil Liability Act* (read with section 11(4)). Section 11(2), which permits a finding of factual causation "in an exceptional case" even though the breach of duty was not a "necessary condition of the occurrence of the harm", is also consistent with the common law. It requires exceptional cases to be decided "in accordance with established principles" — that is, established principles of the common law.[218]

Summary of the Applicants' submissions in reply on causation

165 The Commonwealth appears to accept that the Applicants' case on causation is sound in principle. To quote the Respondent's Submissions at [798]:

> It may be accepted that, where multiple respondents make direct, material contributions to indivisible harm suffered by applicants, it is not necessary to prove what quantum of the harm is referable to each contribution. A direct, material contribution to indivisible harm being proved, a respondent is liable for the whole loss or damage, subject to issues of apportionment and contribution and the like.

166 Leaving aside whether the word "direct" has any place under current doctrine, that is, in a nutshell, the Applicants' case on causation. Because the "cause of the impacts of climate change is the aggregate of GHG emissions across the globe since the pre-industrial era",[219] and because Australia's GHG emissions since 2014 in excess of an emissions target set in line with the BAS have materially contributed to those aggregate GHG emissions, the Commonwealth's breaches of the Primary Duty are a cause in fact of the loss and damage suffered by the Applicants and group members as a result of climate change since that time. The Commonwealth does not appear to contend that this chain of causation is unviable as a matter of principle.[220] Rather, its submissions focus on what it says are factual gaps in the chain of causation articulated by the Applicants.[221]

167 To this end, the Commonwealth's arguments on causation boil down to four main points. *First*, there is no causal connection between the setting of the Commonwealth's emissions reduction targets and the GHG emissions that were (or would have been) emitted in Australia after the targets were set.[222] *Second*, relying on *Sharma*, any increased GHG emissions resulting from the Commonwealth's breaches of the Primary

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218 See APP.0001.0020.0160 *Strong v Woolworths Ltd* (2012) 246 CLR 182, 194 [26] (French CJ, Gummow, Crennan and Bell JJ).
219 AS [460].
220 See RS [800] (accepting that the Applicants' submission at AS [460] may be "apt in other circumstances").
221 See AS [445].
222 RS [776]–[782].

Duty only contributed to a risk of harm, which is legally insufficient to establish causation.[223] *Third*, the loss or damage suffered by the Applicants and group members cannot be attributed to the single, indivisible harm of climate change; each instance of loss must be shown to have been contributed to by the Commonwealth's breaches of care.[224] *Fourth*, any contribution to harm was not material.[225]

168 In summary, the Applicants submit in reply: *First*, the Court can safely infer that the Commonwealth's suite of powers capable of being exercised to reduce Australia's GHG emissions would have been exercised to meet emissions reductions targets that were in line with the BAS. It would be contrary to common sense to expect otherwise. *Second*, the evidence shows that the Applicants and group members have suffered loss and damage, primarily in the form of loss of fulfilment of *Ailan Kastom*, as a result of climate change. The Commonwealth's breaches have contributed to climate change, and therefore to this loss and damage. *Third*, because climate change has a single, indivisible cause (being global GHG emissions), the loss and damage suffered as a result of climate change is similarly best seen as resulting from a single, indivisible cause. *Fourth*, materiality is essentially a normative question, and here the normative justifications for holding the Commonwealth liable supports a finding that it has materially contributed to the loss and damage suffered by the Applicants and group members as a result of climate change.

The Commonwealth's powers to reduce Australia's GHG emissions would have been exercised had the Commonwealth set targets in line with the BAS.

169 The Commonwealth submits that "the setting by a nation of a GHG emissions target does not directly either cause or reduce GHG emissions".[226] That submission should be rejected. The core obligations of the Paris Agreement are for each state party to set emissions reduction targets known as Nationally Determined Contributions, and to pursue mitigation measures with the aim of achieving them.[227] The Commonwealth admits that it has the "power or ability to take steps to reduce or minimise its own GHG emissions within operational and budgetary constraints" and that "a number of statutes

223 RS [784]–[791].
224 RS [792]–[802].
225 RS [803]–[817].
226 RS [777].
227 APP.0001.0006.0017 Paris Agreement, Article 4, Section 2: "Each Party shall prepare, communicate and maintain successive nationally determined contributions that it intends to achieve. Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions". See Defence to 3FASOC at [38].

and regulations confer powers on Commonwealth agencies or Ministers which, depending on the circumstances of a particular case, may be lawfully exercised so as to reduce or minimise GHG emissions from activities undertaken by other entities in Australia".[228] The Commonwealth is thus obliged at international law to aim to meet its emissions reduction targets, and empowered to do so as a matter of domestic law.

170 In the context presented by this case, the setting of an emissions reduction target is more significant than a mere policy decision that may or may not be implemented. The Primary Duty is a duty owed to Torres Strait Islanders that flows from the "unique obligation of permanent protection" owed by the Crown to the Indigenous peoples of Australia,[229] including Torres Strait Islanders.[230] This common law duty of care, like all common law duties of care, imposes an obligation on a person whose conduct exposes their neighbour at law to risk of harm to take reasonable steps to avoid that risk materialising. The conduct of a person under a duty of care is assessed against the risks — that is, the range of foreseeable results — of their conduct. The common law tools for assessing the conduct of a person under a duty of care are familiar: "consideration of the magnitude of the risk and the degree of the probability of its occurrence, along with the expense, difficulty and inconvenience of taking alleviating action and any other conflicting responsibilities which the defendant may have."[231] This analysis is reflected in slightly different terms in section 9 of the *Civil Liability Act*.

171 Here, the setting of emissions reduction targets for the purposes of Australia's NDCs under the Paris Agreement can be seen as the outcome of an actual — not notional — assessment of the risks posed by GHG emissions as against the costs of mitigation and the Commonwealth's conflicting responsibilities. Seen in this way, the NDCs reflect the outcomes of decisions made by the Commonwealth Government to guide the future conduct of the Commonwealth having regard to its assessment of the risks of continued GHG emissions. The NDCs are not mere "targets" disconnected from real-world consequences. They represent the goals that determine the Commonwealth's plans of action to comply with its obligations under the Paris Agreement, and the outcome of its

228 CRT.2000.0003.0001 Defence to 3FASOC at [76(c)–(d)].
229 APP.0001.0020.0089 *Love v Commonwealth* [2020] HCA 3; (2020) 270 CLR 152, [274] (Nettle J).
230 See AS [186]–[190].
231 APP.0001.0020.0191 *Wyong Shire Council v Shirt* [1980] HCA 12; (1980) 146 CLR 40, 47–8 (Mason J).

assessments of the risks of climate change (and the costs of mitigation) to the Australian people.

172 The legal purpose of the setting of GHG emissions targets, the substance of the targets themselves (seen through the lens of the law of negligence), and the evidence regarding actual emissions against the targets all point to the same conclusion — that the setting of emissions reduction targets does, in fact, lead to reduced GHG emissions. As a matter of common sense in light of an everyday understanding of the Australian system of government, that conclusion is not remarkable. Important decisions made by the executive governments of the day in 2015 and 2022 have had real-world consequences. It would be odd if that were not so.

The Commonwealth's submission that GHG emissions only increase the risk of harm misunderstands the Applicants' case and is inconsistent with the scientific evidence.

173 The Commonwealth contends that any additional GHG emissions resulting from failing to set an emissions reduction target in line with the BAS do not contribute to harm, but rather "increase[] the chances of something which might cause harm".[232] The argument is said to gain a legal foothold in the reasoning of Beach J and Wheelahan J in *Sharma*. It should be rejected because it confuses actual harm with prospective harm.

174 The Respondent accepts that every tonne of GHG emissions causes warming. Professor Karoly and Professor Church gave evidence that there is a similar relationship between GHG emissions and sea level rise and other climate impacts.[233] Even if it were accepted that GHG emissions today only increase the risk of certain impacts of climate change, such as a heatwave or major flood, occurring tomorrow, "risk" in that context means the chance of something happening in the future. If a major flood occurred today, it would still be correct to say that GHG emissions 10 years ago increased the risk of the flood occurring. But "risk" used in that sense means the chance of an event happening *assessed before the event*. Once the event has happened, it no longer makes sense to say that there *is* a risk. There *was* a risk; but after the event has occurred, there is only the event and its contributing causes.

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232 RS [785].

233 See above at [18], [61].

175 This distinction is the key to understanding the different outcomes in *Bonnington Castings* and *Fairchild*. In *Bonnington Castings*,[234] there were two sources of the plaintiff's exposure to silica dust, but the employer only owed a duty for one of them.[235] The plaintiff's pneumoconiosis was caused by cumulative exposure to silica dust. The correct question was not, therefore, which of the two sources was the "most probable" cause of the disease, but rather whether the source in question made a material contribution.[236] If it did, then it was correct to say that the source was *a cause* of the disease. The factory owner was not held liable for *creating a risk* of a disease that in fact eventuated. The owner was held liable for *contributing to the cause* of the disease.

176 In *Fairchild*,[237] the evidence (based on the state of medical understanding of the time) was that *any one* of the asbestos fibres inhaled by the plaintiff, from multiple sources, could have caused his mesothelioma. Because it was not possible to prove *which* one of the sources of asbestos in fact caused the disease, the defendant was held liable for merely contributing to the risk of the plaintiff contracting mesothelioma even though it was not proved that the risk created by that defendant was, in fact, the risk that materialised.[238] In other words, the defendant was held liable for *creating a risk* of disease occurring.

177 Unlike the plaintiffs in *Sharma*, the Applicants allege that the Commonwealth's breaches of the Primary Duty of Care *has caused* them to suffer loss.[239] If the Court finds that the Applicants have suffered loss as a result of the impacts of climate change, then the correct question of causation is not whether the Commonwealth contributed to the risk of that occurring. *Fairchild* is not engaged, because there is no "one fibre theory" analogy to GHG emissions and no need to identify one tortfeasor among many candidates. Given the undisputed evidence that climate change is caused by cumulative GHG emissions, the correct question is whether the Commonwealth's breaches materially contributed to that singular cause. And because the concern is with a past event, there is only the event and its contributing causes. The risk has ceased to exist. To adapt and correct the Respondent's submissions,[240] once a past (and not prospective) loss is identified, a breach

234 APP.0001.0020.0023 *Bonnington Castings Ltd v Wardlaw* [1956] AC 613.
235 APP.0001.0020.0023 *Bonnington Castings Ltd v Wardlaw* [1956] AC 613 at 614–15.
236 APP.0001.0020.0023 *Bonnington Castings Ltd v Wardlaw* [1956] AC 613 at 621 (Lord Reid).
237 APP.0001.0020.0056 *Fairchild* [2003] 1 AC 32.
238 APP.0001.0020.0056 *Fairchild* [2003] 1 AC 32.
239 APP.0001.0015.0003 3FASOC at [86].
240 RS at [785] (last sentence).

by the Commonwealth of the Primary Duty of Care is a contribution to something that caused something that increased the chances of something which *did* cause harm.

178 The Commonwealth contends that Beach J and Wheelahan J in *Sharma* considered the chain of causation in that case to be more analogous to *Fairchild* than *Bonnington Castings* because it is not the GHG emissions themselves, but rather the increase in temperature and the resulting effects on the climate, that pose a risk of harm.[241] The Commonwealth's submission appears to read their Honours as saying that, where there are several steps in a causal chain (which are not each certain to follow from the other), at some point the analysis tips over from *Bonnington Castings* into *Fairchild*.[242] That reading is incorrect. It ignores the fact that their Honours were dealing with a case put on a purely prospective basis. As Beach J explained, the case in *Sharma* was put on the basis that the Scope 3 emissions from the project would "increase the likelihood or risk of producing the tipping point" that, if occurred, would in turn pose a risk of a global temperature increase of 4ºC above the baseline.[243] That analysis is all directed to a risk of future harm and several of the steps are contingent (in the sense that they may or may not occur). The same can be said of the "non-tipping point causation thesis", which concerned the risks that the impacts of climate change would flow from temperature increase on a linear basis.[244] Here, the Applicants submit that the Commonwealth's breaches caused harm that in fact has occurred. As illustrated above, while it is correct to say that the increased GHG emissions contributed to the risk of the harm assessed before the event, assessed *after* the event the correct question is whether the increased GHG emissions contributed to the *occurrence* of the harm.

179 Further, the Respondent's emphasis on the number of steps in the causal chain is unsound in principle. In particular, the Respondent's references to "*direct*, material contribution"[245] to harm seem to imply that only a short chain of causation can suffice to prove a material contribution to harm under *Bonnington Castings*. That is not correct. Indeed, the High Court has emphasised that the language of "directness" tends to obscure the separate analysis of factual causation and normative scope of liability.[246] The

241 RS at [785].
242 See especially RS at [788].
243 APP.0001.0020.0101 *Minister for the Environment v Sharma* [2022] FCAFC 35 at [435].
244 APP.0001.0020.0101 *Sharma* at [437].
245 RS [798] (emphasis added).
246 APP.0001.0020.0182 *Wallace v Kam* (2013) 250 CLR 375, 381 [11] (The Court); see also at 385 [23].

questions posed by the common law (and the *Civil Liability Act*) are: was there causation in fact, and if so, should the respondent be held liable? Characterising the link between the breach of duty and the legally significant consequences as "direct" or otherwise does not help the analysis. And the Respondent does not contend that remoteness is relevant here in assessing the scope of liability.

180 Finally on this point, the Respondent's argument that the harms suffered by the Applicants are "several steps removed" from the Commonwealth's breach seems to imply scientific uncertainty about the causal chain that does not exist. Once again, there is no dispute that GHG emissions cause global temperature increase,[247] which causes ocean acidification, ocean temperature increase, changes in precipitation patterns, sea level rise and inundation of coastal lands, increased frequency, size and intensity of extreme weather events, and associated destruction of ecosystems and species.[248] And the evidence is that many of those global impacts have been observed in the Torres Strait.[249]

The evidence establishes that the Applicants have suffered loss contributed to by the Commonwealth's breaches of the Primary Duty of Care.

181 The Commonwealth argues that the evidence fails to show a link between GHG emissions and impacts in the Torres Strait Islands. It submits that "it is impossible to know whether the very small incremental contribution to global temperature increase referable to the Commonwealth's alleged breaches had any impact at all on the Torres Strait Islands".[250] That argument is overstated—while it may be difficult using current scientific techniques to *measure* the effect of an incremental contribution to global GHG emissions in the Torres Strait Islands, there is no scientific doubt that every additional tonne of GHG emissions *has* an effect on the climate system.[251] In any event, the argument is beside the point. The Applicants' case is not that the Commonwealth's breach has resulted in "measurable" impacts in the Torres Strait Islands.[252] Rather, the

247 AS [37]–[38].
248 AS [47].
249 AS [49]–[82].
250 RS [793].
251 CRT.2000.0003.0001 Defence [11(a)]; APP.0001.0003.0093 Exhibit A40, Karoly Report [26]; APP.0001.0015.0010 Exhibit A46 Meinshausen Supplementary Report [26]; see also TRN.0015.1271 16 November 2023, Professor Pitman, T1329:35; EXP.2000.0001.0196 Exhibit R13, Canadell Report [10] ("It has been the sum of small and big emission sources that is responsible for the increase of 1.09ºC of the global mean surface temperature above the mean of 1850–1900.").
252 Cf RS [793] ("it cannot be known if that tiny incremental increase contributed to the manifestation of climate impacts in a particular region, such as the Torres Strait Islands").

Applicants case is correctly described at paragraph [797] of the Commonwealth's submissions: the Applicant "does not have to prove that the respondent's actions had a divisible impact that can be quantified; it is enough to prove that the respondent's actions materially contributed to the overall harm." It is the harm that is relevant, not the ability to measure or apportion it with specificity.

182 The Applicants accept, as the Commonwealth submits, that only harm that has occurred after the Commonwealth's breaches of the Primary Duty can be caused by those breaches.[253] However, the Applicants submit that, to complete a cause of action in negligence for loss of *Ailan Kastom*, it is not necessary for the Applicants to prove, in the granular way alleged by the Respondent, "which aspects were harmed, by what and when and in that way determine whether any increased GHG emissions following the Commonwealth's alleged breaches of its duties had a sufficient causal connection".[254] For the reasons given below, the Applicants submit that the loss of fulfilment of *Ailan Kastom* should be characterised as indivisible harm in every case, and that the evidence supports findings the Commonwealth's alleged breaches have contributed to that harm.

183 *Ailan Kastom* is the collective culture of the Torres Strait Islander peoples. It consists of the intangible relationships between the spiritual and cultural identities and practices of Torres Strait Islanders and the land and sea of the Torres Strait.[255] Though, as Uncle Pabai testified, "all of our stories are connected to specific places on the land",[256] *Ailan Kastom* does not inhere merely in the cultural and spiritual relationship between Torres Strait Islanders (individually or in any group) and specific sites or locations. *Ailan Kastom* is a means by which Torres Strait Islanders form their identities.[257] Harm to *Ailan Kastom* is, therefore, at bottom a harm to the cultural and personal identities of each Torres Strait Islander who practices that culture.[258]

184 Seen in this way, harm to *Ailan Kastom* is "indivisible" in the sense that it is properly regarded on the evidence as being larger than any single instance of impairment to a

253 RS [768], [799].
254 RS [799].
255 AS [137]–[141].
256 APP.0001.0009.0008 Affidavit of Uncle Pabai [15]; APP.0001.0012.0004 5 June 2023, Uncle Pabai, T42:1-7; APP.0001.0009.0005 Affidavit of Uncle Paul [153]; APP.0001.0012.0004 5 June 2023, Uncle Fred, T91:40-45.
257 AS [142]; see APP.0001.0009.0011 Affidavit of Uncle Gerald [54]; APP.0001.0009.0008 Affidavit of Uncle Pabai [200] (see also APP.0001.0012.0004 5 June 2023, Uncle Pabai, T60:37-39); APP.0001.0012.0003 12 June 2023, Uncle Paul, T476:24-36 (see also T468:23-26, and APP.0001.0009.0005 Affidavit of Uncle Paul [107]).
258 See AS [244]–[248].

cultural practice caused by a geographical change. The evidence does not disclose a method by which the Court can divide the harm to the cultural and personal identities of Torres Strait Islanders that arises from harm to *Ailan Kastom*. Any issues of apportionment and the extent of the Commonwealth's contribution is properly assessed at the damages stage.

185 In any event, the evidence supports findings that the impacts of climate change since 2015 have contributed to specific harms to *Ailan Kastom*. The evidence of Uncle Laurie Nona is the most specific. He deposes that, in October 2021, the swamps on Badu had turned to dust.[259] In the wet season of 2021–2022, an exceptionally high tide flooded his campsite.[260] In early 2022, a glut of dugongs on the reef led to an overabundance of dugongs to hunt.[261] While this was a positive in terms of supply of a traditional source of food, it deprived Uncle Laurie of an opportunity to teach children traditional hunting practices, and therefore eroded the authority of the Uncles who possessed that traditional knowledge.[262] A similar glut of crabs occurred in May 2022.[263] In September 2022, the usual season of turtle mating did not occur.[264] Uncle Pabai also gives evidence that, a few months before making his affidavit, he tried to plant cassava in his home garden using the position of the stars to guide the timing of planting, but the tides came in and wrecked the crop. The soil was too salty to grow much in it anyway.[265]

186 Each of these instances of harm to *Ailan Kastom* is consistent with the recognised impacts of climate change in the Torres Strait.[266] A finding that but one of these events was causally connected to the Commonwealth's breaches of the Primary Duty of Care will suffice to complete the cause of action.

187 While the Respondent is correct to point out that the Applicants have not put on evidence under the rubric of "event attribution" as that phrase is understood by climate scientists,[267] it does not follow that there is no evidence that allows an inference that the harms identified above were causally contributed to by climate change. As previously

259 APP.0001.0009.0013 Affidavit of Laurie Nona [58].
260 APP.0001.0009.0013 Affidavit of Laurie Nona [86].
261 APP.0001.0009.0013 Affidavit of Laurie Nona [44].
262 APP.0001.0009.0013 Affidavit of Laurie Nona [46]–[47].
263 APP.0001.0009.0013 Affidavit of Laurie Nona [49]–[50].
264 APP.0001.0009.0013 Affidavit of Laurie Nona [36].
265 APP.0001.0009.0008 Affidavit of Uncle Pabai [109]-[113].
266 See AS [49]–[82].
267 RS [769].

submitted, if an "association between two events is shown to have a causal explanation", the conclusion may be open that the first event was "at least a contributing cause" of the second.[268] Here, the expert evidence demonstrates that climate change contributed to the impacts observed by Uncle Laurie and the other witnesses.[269] This supports an inference of causation as a result of the Commonwealth's breaches.[270]

The Commonwealth's contributions were material

188 The Commonwealth submits that the increased GHG emissions that resulted from its breach of the Primary Duty were not enough to make a "material" contribution to resulting impacts.[271] It contends that a "material" contribution must "import some quantitative minimum standard".[272]

189 Materiality does not require the Applicant to prove contribution in excess of some quantitative minimum standard, at least not in any objective way that the use of the word "quantitative" implies. As Lord Reid said in *Bonnington Castings*, a material contribution to harm is any contribution that cannot be said to be "within the exception *de minimis non curat lex*".[273] Whether a contribution is material or *de minimis* is, ultimately, a matter for normative evaluation taking into account the full circumstances of the problem at hand. As the Applicants have submitted, Australia's contribution to global GHG emissions from 2014 to 2021 are 17th in the world in absolute terms, and 11th in the world in *per capita* terms.[274] A material reduction in the Commonwealth's GHG emissions cannot therefore be said to be an insignificant contribution to reductions in global GHG emissions — especially bearing in mind that the world's largest emitting nations are themselves only responsible for incremental warming in the fractions of degrees Celsius.[275]

190 The Respondent appears to submit that a contribution is not material if it cannot be linked to a "change in any climate variable over the Torres Strait", which Professor Pitman says is not possible with a temperature increase of 0.010°C and very probably 0.10°C.[276] Yet,

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268 AS [434], quoting APP.0001.0020.0196 *Amaca Pty Ltd v Booth* [2011] HCA 53; 246 CLR 36 at [43] (French CJ).
269 See section B above.
270 APP.0001.0020.0079 Karpik v Carnival plc (2023) FCA 1280 [818] (Allsop CJ).
271 RS [803]–[814].
272 RS [812].
273 APP.0001.0020.0023 *Bonnington Castings Ltd v Wardlaw* [1956] AC 613 at 621. See also APP.0001.0020.0092 *March v E & MH Stramare Pty Ltd* [1991] HCA 12; (1991) 171 CLR 506, 532 (McHugh J).
274 AS [477]; APP.0001.0015.0010 Exhibit A46 Meinshausen Supplementary Report, Table 1.
275 AS [461]; APP.0001.0015.0010 Exhibit A46 Meinshausen Supplementary Report, Table 1.
276 RS [807].

if China, the United States and India reduced their emissions from 2014 to net zero by 2024, it would avoid 0.2ºC, 0.0079ºC and 0.0053ºC respectively, none of which would rise above Professor Pitman's temperature thresholds.[277] This illustrates why posing the threshold for materiality as requiring link to an identifiable change in any climate variable over the Torres Strait is inappropriate in this context.

191 Although the rhetoric of "common sense" invoked by the Respondent[278] is of limited analytical use,[279] a common-sense way of looking at it is this: if Australia's contributions to global GHG emissions (and therefore to climate change) are so trivial as to be *de minimis* at law, why enter the Paris Agreement at all? Why submit NDCs that each impose steeper emissions reductions targets? The Commonwealth's conduct on the world stage and domestically serves only to demonstrate that it plays a significant part in the global effort to mitigate climate change.

H. CQ16 & 17: RELIEF – PRIMARY DUTY OF CARE

Declarations

192 The Respondent seeks to characterise the declaration sought by the Applicants as interlocutory (RS [883]), drawing upon *Sharma*. But this case is a world away from *Sharma* for the reasons given at AS [491], and most particularly because *Sharma* was a case in which liability and quantum were separated.

193 The response to RS [884] and [886] is that the existence of the duty is determined at the level of generality at which the duty is framed and by reference to the class of persons to whom it is posited that the duty is owed. Accordingly, the fact that a particular applicant (or group of applicants, for example those who come from a particular island in the Torres Strait) might be able to adduce evidence of *further* facts to support the existence of a duty does not count against the Court declaring the broader duty to exist if it is satisfied that *all* persons in the class (by reason of the relationship between the class and the Commonwealth) are owed a duty.

194 Finally, even if were correct that the Court would not make a declaration to the effect that the Respondent owed a duty of care, it would be open to the Court to find *liability*

277 AS [461]; APP.0001.0015.0010 Exhibit A46 Meinshausen Supplementary Report, Table 1.
278 RS [813].
279 APP.0001.0020.0182 *Wallace v Kam* (2013) 250 CLR 375, 385 [23].

established.[280] Necessarily implicit in that it that it would be open to the court to answer common question 3 affirmatively, but decline to give that answer effect in a declaration. Even the Respondent appears to accept as much in conceding that it would be open to the Court to make the 'intermediate finding' that a duty was owed (RS [883]).

Injunctive relief

195 The Respondent's primary objection to the proposed injunction is that it is uncertain by reason of resort to 'subjective concepts' of reasonableness and necessity (RS [890]). As a result, it is said that the 'Court would likely be drawn into a supervisory exercise' (RS 890(b)]).

196 However, it is not correct to characterise reasonableness and necessity as 'subjective'. These are concepts regularly operate as implied or express limits on statutory powers and, in that context, are objectively ascertained and enforced by the courts. Further, the law of negligence only ever imposes obligations to act reasonably, in the sense that the standard of care is set by reference to a reasonable person in the position of the Respondent. In that sense, the injunction sought by the Applicant requires nothing more uncertain than the standard that the law of negligence requires be observed by all persons owing duties of care.

197 The Respondent otherwise complains of the 'failure to specify the "measures" that the injunction would require the Commonwealth to take' (RS [893]). However, the injunction is framed at this level so as to correspond to the duty. Both are framed at a relatively high level of generality because it is appropriate to afford the Commonwealth decisional latitude in determining precisely how to act consistently with its duty of care. The crux of the injunction, however, is that it requires the Respondent to act consistently with the best available science. The best available science is an objective concept, the content of which the Commonwealth accepts is ascertainable (RS [189]–[196]). So long as the Respondent is able to justify its actions by reference to the best available science, it should not be in any uncertainty about its obligations.

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280 APP.0001.0020.0048 *Dovuro Pty Ltd v Wilkins* [2003] HCA 51; (2003) 215 CLR 317, [144] (Hayne and Callinan JJ).

198 The Applicants otherwise rely on their submissions in chief as to the claimed absence of any 'imminent danger' to them by reason of the Respondent's breach of duty (RS [895]).

Damages

199 It is convenient to deal first with damages for *Ailan Kastom*, as the parties' dispute on this issue goes to matters of principle as well as evidence.[281]

Loss of fulfilment of *Ailan Kastom*

200 The Respondent appears to assume that it would be necessary for the Court to recognise a new head of damages in order to compensate for loss of fulfilment of *Ailan Kastom*. That is not necessarily so. The Court could compensate for loss of fulfilment of *Ailan Kastom* either within an existing head of damages (by analogy with losses that are compensated under that head) *or* by recognising a new head of damages. It is accepted, however, that both of those avenues to compensation direct attention to whether loss of fulfillment of *Ailan Kastom* is compensable requires attention to whether the common law *can* and *should* compensate for it (RS [853]).

201 The Respondent does not expressly deny that the law *can* compensate for the loss of fulfilment of *Ailan Kastom*. As much is clear from the law's capacity to compensate for similar species of cultural loss in other closely analogous contexts (AS [522]–[525]). Indeed, the law is well recognised to be capable of compensating many 'intangible injuries and nebulous losses'.[282]

202 The Respondent is thus forced to fall back on the argument that loss of fulfilment of *Ailan Kastom* should not be compensated, because it is said to be 'contrary to principle' (RS [841]). However that analysis proceeds from the incorrect assumption that the precondition for the recognition of a compensable form of damage is that it flows from 'the infringement of a recognised statutory or common law right' (RS [855], see also

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281 Damages for injury, disease or death are not separately addressed as the Applicants have accepted that there is no specific evidence to show that the two Representative Applicants suffered such damage by reason of the Respondent's breach of duty: AS [533].

282 APP.0001.0023.0205 *Harriton v Stephens* [2006] HCA 15; (2006) 226 CLR 52, [83] (Kirby J).

[869] and [874], emphasis added).[283] The true position is that it is sufficient if the harm is to an '*interest* recognised as capable of protection by law'.[284]

203 To determine whether an interest is capable of protection by law, the proper approach is to proceed by analogy but also, where appropriate, to consider coherence and policy,[285] and even international law.[286] That is the approach that has been adopted by the Applicants in their submissions in chief, with a focus in particular on analogous cases (in tort and other contexts) in which damages awards have proved capable of protecting other forms of loss of cultural fulfilment (AS [522]–[526]). The Applicants also referred elsewhere in their submissions to international law[287] and domestic statutory[288] protections of Indigenous culture.

204 To the extent the Court is assisted by more general case law analogies, one can point to the compensation of such subjective matters as the loss of the ability to assist a family member (as part of general damages for loss of amenity and enjoyment of life), in which context the following statement was endorsed:

> The injured plaintiff has in such a case as this lost part of a capacity, the exercise of which can give to her pride and satisfaction and the receipt of gratitude, and the loss of which can lead to frustration and feelings of inadequacy.[289]

205 Of course, loss of fulfilment of *Ailan Kastom* is much more than that – perhaps something closer to the 'severe tension of mind and depression of spirit' compensable as 'disappointment and distress' in breach of contract cases[290] – but to the extent that the law is capable of compensating a feeling of lost self-fulfilment, it is clear that loss of fulfilment of *Ailan Kastom* would be compensable.

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283 On the Respondent's account, the law of tort is purely parasitic – protecting only those *rights* that are otherwise recognised by statute or common law. In fact, the entitlement to damages flows from the wrong that is the harmful breach of a duty recognised by the law. So long as the harm is compensable, the person harmed need not establish some other wrong (in the sense of 'the infringement of a recognised statutory or common law right').

284 APP.0001.0023.0202 *Cattanach v Melchior* [2003] HCA 38; (2003) 215 CLR 1, [23] (Gleeson CJ).

285 See, for example, the analysis conducted at APP.0001.0023.0202 *Cattanach v Melchior* [2003] HCA 38; (2003) 215 CLR 1, [30]–[35] (Gleeson CJ); APP.0001.0023.0201 *CSR Ltd v Eddy* [2005] HCA 64; (2005) 226 CLR 1, [25]–[35] (Gleeson CJ, Gummow and Heydon JJ, Callinan J agreeing).

286 See APP.0001.0023.0202 *Cattanach v Melchior* [2003] HCA 38; (2003) 215 CLR 1, [35] (Gleeson CJ).

287 AS [611]–[613].

288 AS [638], to which might be added s 28 of the *Human Rights Act 2019* (Qld).

289 APP.0001.0023.0201 *CSR Ltd v Eddy* [2005] HCA 64; (2005) 226 CLR 1, [16] (Gleeson CJ, Gummow and Heydon JJ, Callinan J agreeing), quoting with approval from APP.0001.0023.0200 *Burnicle v Cutelli* [1982] 2 NSWLR 26, 28 (Reynolds JA).

290 APP.0001.0023.0199 *Baltic Shipping Co v Dillon* [1993] HCA 4; (1993) 176 CLR 344, 368–71 (Brennan J).

206 No further analogies are necessary, because the Respondent has not doubted the availability of analogies. Rather, the Respondent in effect suggests that the law should stand still because loss of fulfilment of *Ailan Kastom* is not *presently* and *specifically* recognised to be compensable. To the extent that the law could be said to not currently encompass a loss of fulfilment of *Ailan Kastom*, the law should not stand still, it should move incrementally and coherently[291] forward. To do so would be to more completely fulfil the promise of the compensatory principles that 'damages you should as nearly as possible get at that sum of money which will put the party who has been injured, or who has suffered, in the same position as he would have been in if he had not sustained the wrong for which he is now getting his compensation'.[292]

Property Damage

207 The Respondent invites the Court 'not to make findings with respect to the alleged damage because there is no common question dealing with property damage' (RS [836]). That would not be consistent with the statutory injunction of efficient determination of the issues in dispute.[293] The hearing in respect of the Representative Applicants was always directed to both liability and quantum. The Respondent has joined issue on damages; the Court should determine the issue.

208 In respect of Mr Pabai, the Respondent suggests that all of the damage is outside of the limitation period or prior to the alleged breaches of duty. However Mr Pabai has clearly described damage to his 'home garden' '[a] few months ago'.[294] He has also described damage to the structure of the campsite that has occurred over the last 10 years.[295] The Respondent also put, faintly, the idea that this property might not even be owed by, or otherwise the subject of an interest of, Mr Pabai (RS [838]). However Mr Pabai described the garden as *his* home garden, and the campsite as something that *he* built.[296] Noting that the Respondent never cross-examined Mr Pabai as to these assertions, they are sufficient to prove Mr Pabai's interest in the property.

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291 APP.0001.0023.0201 *CSR Ltd v Eddy* [2005] HCA 64; (2005) 226 CLR 1, [96] (McHugh J).
292 APP.0001.0020.0087 *Livingstone v Rawyards Coal Co* (1880) 5 App Cas 25, 39 (Lord Blackburn).
293 *Federal Court of Australia Act 1976* (Cth) s 37M.
294 APP.0001.0009.0008 Affidavit of Uncle Pabai, [113].
295 APP.0001.0009.0008 Affidavit of Uncle Pabai, [132].
296 APP.0001.0009.0008 Affidavit of Uncle Pabai, [113], [130].

209 In respect of Mr Kabai, the Respondent makes no submission as to ownership, but repeats the submission as to the timing of the damage and the absence of any quantification (RS [839]). But Mr Kabai's evidence is similarly clear that one of the inundation events was in February 2020 and it destroyed his crops.[297] While it is true that the nature of the damage to his washing machine and tools is less clear, it is apparent that these were negatively affected. Accordingly, the Court will engage in the familiar task whereby '[a] judge faced with a paucity of evidence must simply do the best that he or she can to assess the extent of the plaintiff's loss'.[298]

210 Admittedly, it is no easy task for the Court to ascertain what portion of the damage to the Applicants' property was the result of the Commonwealth's breach of its duty of care. However the difficulty to determining quantum does not mean that damages should be nil. The Court should determine – as 'a practical exercise in approximation'[299] – a figure that represents the portion of the damage attributable to the Commonwealth's breach of duty. That will mean that the Commonwealth is not liable for *all* of the property damage caused be the impacts of climate change, but a portion of them.

297 APP.0001.0009.0005 Affidavit of Uncle Paul, [140].
298 APP.0001.0023.0205 *Harriton v Stephens* [2006] HCA 15; (2006) 226 CLR 52, [84] (Kirby J).
299 APP.0001.0023.0205 *Harriton v Stephens* [2006] HCA 15; (2006) 226 CLR 52, [82] (Kirby J).

PART 3. THE ADAPTATION DUTY

211 As noted at paragraph [9] above, this Part is not intended to comprehensively address all matters raised in the Respondent's submissions regarding the Alternative Duty.

I. CQ5: THE ALTERNATIVE DUTY OF CARE

212 At RS [901], the Respondent has correctly described the Applicants' approach in respect of the Alternative Duty. That is, the Alternative Duty is broadly framed as an obligation on the Respondent to take reasonable steps to protect the Applicants and the Group Members against the foreseeable risk of marine inundation and erosion arising from sea level rise and extreme weather events (see AS [654]). Within the context of this case, the eight Alternative Duties set out the standard of care, being the steps that the Respondent ought to have taken in order to discharge the Alternative Duty (and which are said to establish breach in circumstances where those steps were not taken).

213 However, and similar to its submissions on the Mitigation Duty, the Respondent has adopted an overly broad characterisation of 'policy' in dealing with the Alternative Duty and has disregarded (or at least failed to adequately deal with) the imminent and existential nature of the threat from which the Applicants and the Group Members are seeking to be protected.

<u>COAG Agreement</u>

214 Contrary to the Respondent's position, it is submitted that that the Alternative Duty does not seek to impose obligations on any aspect of the Respondent's conduct that is a political matter, which the Respondent argues is "not apt for resolution by the Court".[300]

215 In summary, the Alternative Duty does not require the Court to consider what obligations should be imposed on the Respondent under the COAG Agreement. The duty does not require the Respondent to become involved in or take responsibility for any particular adaptation project, either at a local or a national level. It simply seeks to impose reasonable and appropriate obligations on the Respondent to implement and administer (with reasonable care) the policy decision to which it had already committed itself.

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300 RS [920].

216 The Applicants reject the assertions at RS [935] to [943] that the imposition of the Alternative Duty would:

216.1 require the Respondent to take the lead on local adaptation measures; or

216.2 be in tension with the COAG Agreement.

217 Importantly, the Applicants do not accept that adaptation measures in the Torres Strait are correctly described as 'local'. Rather:

217.1 the islands are protected under the Treaty, to which the Respondent is a party (and not any State or local government);

217.2 biodiversity in the Torres Strait is subject to the Respondent's oversight and is the subject of a biodiversity register for which the Respondent is responsible; and

217.3 as with the Great Barrier Reef (and the associated Marine Park and World Heritage Area), the Applicants contend that the existential threat to the Torres Strait Islands is a matter of national significance.

218 In any event, and in compliance with the Court's decision of 23 November 2023, the Applicants' case is that the Alternative Duty arises only once the Respondent has voluntarily assumed responsibility for the Seawalls Project by committing to funding the construction of seawalls on all six islands. This does not require the Court to accept that, in order to comply with the Duty, the Respondent would have to engage in core policy matters. Rather, it is submitted that proper consideration of the salient features leads to a conclusion that the Respondent was required to take reasonable steps to administer and implement that policy decision.

219 Seen in this light, the imposition of the Alternative Duty can only be "in tension with" the COAG Agreement if it were accepted that the Respondent's involvement in the Seawalls Project was itself "in tension with" that Agreement. However, the Applicants submit that the Respondent's assumption of responsibility in respect of the Seawalls Project is entirely consistent with its role under the COAG Agreement. Accordingly, the Alternative Duty sought to be imposed by the Applicants must similarly be seen as consistent with that Agreement as it merely requires the Respondent to take reasonable

steps to implement its policy decision to protect the six islands, by leading and co-ordinating the adequate funding of the Project.

220 Further, leading and co-ordinating the funding for the Seawalls Project is not inconsistent with the responsibility, under the COAG Agreement, for local governments to (see RS [941]):

220.1 ensure that adaptation responses consider local circumstances; and

220.2 "contribute" appropriate resources for preparation, prevention, response and recovery.

221 The Alternative Duty does not require the Respondent to exclude any of the interested parties from the Seawalls Project or to fund the Project without contribution from any such parties, so it does not lead to any "tension" with these aspects of the COAG Agreement. On the contrary, the Agreement:

221.1 recognises that the Respondent is well placed to take the lead in the planning context on the basis that individuals and businesses do not have the capacity to independently take on such a role, and

221.2 does not address matters of resourcing and finance regarding adaptation measures.

222 The facts in *Graham Barclay Oysters*[301] are entirely distinct from the circumstances of this case. In particular, in that case, the State government had made a policy decision to effectively remove itself from the relevant regulatory regime and had passed regulations stating that the committees responsible for the regulation of the shellfish industry were not "subject to the control or direction of the Minister".[302] Having effectively relinquished itself of control over the conduct of oyster producers, the Court unanimously held that the State did not owe a duty of care to the oyster consumers. It is clear that such a duty of care would be inconsistent with the State's policy decision to allow the industry to self-regulate.

301 APP.0001.0020.0065 *Graham Barclay Oysters Pty Ltd v Ryan* [2002] HCA 54; (2002) 211 CLR 540.
302 APP.0001.0020.0065 *Graham Barclay Oysters Pty Ltd v Ryan* [2002] HCA 54; (2002) 211 CLR 540, [172].

223 In this case, the COAG Agreement expressly anticipates the Respondent's involvement in relevant adaptation responses to climate change, and the Seawalls Project demonstrates the Respondent's decision to directly involve itself in and take responsibility for a specific adaptation measure in the Torres Strait. By analogy with *Graham Barclay Oysters*, the Respondent's submissions are the equivalent of:

223.1 the State and the local council entering into an agreement by which they were to co-operate in the regulation of the shellfish industry;

223.2 the State government directly involving itself in the operation and regulation of Graham Barclay Oysters; and

223.3 the State government then arguing that it had no duty of care to consumers by reason of its agreement with the local council.

International Treaties

224 The Respondent's submissions fail to acknowledge the countervailing consistency between the Alternative Duty and the Respondent's international obligations (including under the Treaty), by which it is required to protect the traditional way of life of the Torres Strait Islanders. These obligations have been voluntarily undertaken by the Respondent and are not imposed on any State government. The imposition of the Alternative Duty is therefore fundamentally supportive of the Respondent's duty to comply with protection obligations that it has agreed to take on at the international level.

225 Importantly, the COAG Agreement anticipates that adaptation measures will be implemented consistently with international treaties/obligations.[303]

Budgetary Processes and Decisions

226 As set out below, the Applicants contend that there is no evidentiary basis for the Court to conclude that securing funding for the Seawalls Project at any relevant point would have engaged budgetary processes and decisions. In addition, it is submitted that as a general principle, budgetary decisions do not always involve policy – and, even where that is the case, do not rise to the level of core policy.

[303] EVI.2001.0006.2001 at 0695

227 The evidence of Christopher Connolly is that, at some point after funding for Stage 1 was approved under the RDA Fund, a decision was made to instead grant funding from the Community Development Grants Programme (**CDGP**). He described the CDGP as a "non-competitive grant program" and as a "catch-all program to deliver on projects identified by the government". However, he was unable to provide any further evidence regarding that process.[304]

228 Importantly, neither Mr Connolly nor any other witness called by the Respondent gave evidence that:

228.1 securing those funds from the CDGP required approval through any budgetary process or decision;

228.2 further funds could not be obtained through the CDGP without engaging in budgetary processes or obtaining a specific budgetary allocation; or

228.3 there were no alternative funds, similar to the CDGP that could be accessed through a 'non-competitive' process for the purpose of 'delivering' on the Respondent's commitment to the Seawalls Project.

229 The Respondent did not call any witnesses or adduce any evidence to the effect that either the additional $7m in funding for Stage 1 or the $20m that was allocated to Stage 2 was procured through budgetary processes or decisions and, more significantly, involved matters of core policy.

230 Finally, the evidence of Dr Shay Simpson regarding the steps that have been taken to obtain funding for a potential Stage 3 demonstrates that participation in budgetary processes is not necessary. Specifically, Dr Simpson says that:[305]

230.1 she has been involved in "the preliminary work that is being undertaken by NIAA to consider *whether and how best to seek further funding* for the seawalls project through the Australian Government budget process *or through existing grant or loan programs*"; [306] and

304 WIT.2000.0001.0015 First Affidavit of Chris Connolly [54].
305 WIT.2000.0002.0001 Simpson Supplementary Affidavit [9].
306 WIT.2000.0002.0001 Simpson Supplementary Affidavit [9].

230.2 the approval of further funding for the Seawalls Project "*may* have to go through the Australian Government budget process."[307]

231 From these statements, it can be inferred that:

231.1 obtaining funds through budgetary allocation is only one of the available options for the Respondent to provide additional funding for the Seawalls Project; and

231.2 obtaining additional funding through "existing grant or loan programs" (such as the CDGP) *does not* require any engagement with any budgetary process.

232 Similarly, the evidence of Mr Connolly and Dr Simpson – combined with a similar lack of evidence regarding the CDGP and the funds referred to at para [229], above – fails to provide any reasonable basis on which the Court could conclude that those funding decisions were subject to the legislation and rules referred to at RS [949] and/or were matters involving core policy.

233 The Respondent's attempt to otherwise tie particular decisions to matters that it refers to as "policy considerations" misses the point. The purpose of the Alternative Duty is to effectively oblige the Respondent to implement and administer (with reasonable care) its policy commitment, which has already been made. Its operational role in co-ordinating and planning sufficient funding for the Seawalls Project does not imply or require any core policy decision beyond that which has already been made.

234 Importantly, the Applicants do not understand it to be the Respondent's case that it did not have sufficient funding. The Respondent has not called any evidence to support an assertion that additional funding for Stages 1 and 2 *could not have been obtained otherwise* than through the IHI Appropriation and the IAS Grant. By contrast, the evidence of Mr Connolly appears to indicate that there was at least one grant – being the CDGP – that was already in existence for the specific purpose of providing funding to deliver on the Respondent's existing projects, and there is no evidence that obtaining funds through the CDGP involved any policy considerations.

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307 WIT.2000.0002.0001 Simpson Supplementary Affidavit [9].

Salient Features

235 The Respondent's attempt to limit the matters relied on by the Applicants as establishing the Alternative Duty is misconceived (see, e.g., RS [961(b)]). It has never been the case that, for example, the Applicants' and the Group Members' particular vulnerability and reliance on the Respondent or the special relationship between them arose spontaneously at the commencement of the claim period. Rather, it is asserted that a combination of both historical and more recent events contribute to the totality of the circumstances falling within the salient features analysis and thereby giving rise to the Alternative Duty.

Control

236 The Respondent's submissions regarding control misconstrue the nature of the Applicants' case. The Alternative Duty is a duty to protect from a risk of harm. The Respondent was obliged to, and made the policy decision to, protect the Torres Strait Islands by (leading and co-ordinating) funding the seawalls. In this way, it was in control in the relevant sense.

237 The Respondent's reliance on *Kirkland* is similarly misconceived – reliance is placed in particular on paragraph [114],[308] without the full context being referenced. Specifically, the Respondent refers to Gaudron, Gummow and Hayne JJ's assertion that the officers' control over the risk of harm was of "critical significance" when, in fact, the full paragraph of their Honours' judgment says:[309]

> In the present matter, as in a number of cases about the exercise of statutory power, is is the factor of control that is of critical significance. It was not the officers who controlled the risk of harm to Mr Veenstra; *it was Mr Veenstra alone who was the source of that risk. For the reasons that have been expressed in connection with consideration of the value of personal autonomy, this factor is of predominant importance.*

238 Reading this passage in context, the Applicants submit that there were two matters of "critical significance" to their Honours in finding that the officers did not owe a duty of care to Mr Veenstra:

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308 See RS [999(d)] at footnote 1390.

309 APP.0001.0020.0161 *Stuart v Kirkland-Veenstra* (2009) 237 CLR 215, 254 [114] (emphasis added).

238.1 first, it was Mr Veenstra himself who not only controlled but *created* the risk from which the alleged duty was intended to protect him; and

238.2 secondly, in order to protect Mr Veenstra from that risk of harm, the officers would have needed to interfere with his personal autonomy in circumstances where he did not pose a danger to anyone other than himself.[310]

Importantly, those factors would exist in almost any context in which a duty to protect a person from self-harm might be imposed, whereas they do not exist in the present case.

239 It is submitted that the requisite control relied upon in this case is control over the protection of the Applicants from a risk of harm (due to inundation and erosion) through funding and the implementation and administration of the funding of the Seawalls Project. It is not asserted that the Respondent had the power to unilaterally construct seawalls in the Torres Strait, or to force the TSIRC to implement the Seawalls Project in a particular manner.

240 Additionally, the Applicants do not assert that the Respondent had sole control over protecting the Torres Strait Islands. Consistent with the authorities, exclusive control is not essential to establishing the Alternative Duty.[311]

J. CQ6: STANDARD OF ALTERNATIVE DUTY OF CARE

Reasonable Foreseeability

241 Somewhat incomprehensibly, the Respondent has:

241.1 admitted that it was reasonably foreseeable that the Applicants may suffer harm if the Seawalls Project was not properly funded; and

241.2 denied that it was reasonably foreseeable that the Applicants may suffer harm if the Respondent failed to lead and co-ordinate, and establish a coherent plan for, the Seawalls Project to be properly funded.

242 The Respondent's denial misconstrues the law. It is submitted that, consistent with the general enquiry at the duty stage[312], it was reasonably foreseeable that if the Respondent

310 See APP.0001.0020.0161 *Kirkland* 248 [87] and the general discussion of personal autonomy at 248-9 [88]-[91].
311 APP.0001.0020.0101 *Minister for the Environment (Cth) v Sharma* [2022] FCAFC 35; (2022) 291 FCR 311, [660].
312 APP.0001.0020.0101 *Minister for the Environment (Cth) v Sharma* [2022] FCAFC 35; (2022) 291 FCR 311, [417].

failed to administer and implement its policy decision by leading and co-ordinating the funding of the Seawalls Project (for example) the Applicants would suffer loss caused by inundation and erosion. This is clearly exposed by the relevant context:

242.1 the Respondent was the only party with an obligation to protect the traditional way of life of the Torres Strait Islanders; and

242.2 the Respondent was in a position to effectively lead and co-ordinate funding of the Seawalls, which represented the primary means by which to prevent marine inundation and erosion.

K. CQ9 & 10: BREACH OF ALTERNATIVE DUTY OF CARE

243 The Applicants' case is that the Respondent breached the Alternative Duty by simply taking a passive role and thereby failing to administer and implement its policy decision in circumstances where it was obliged to protect the Applicants and the Group Members. The Respondent was consistently passive.

Relevance of Historical Matters

244 The submissions at RS [911] to [916] are misconceived. As noted above, the Applicants have not sought to expand their case to seek any compensation for loss or damage suffered outside the claim period. Rather, it is submitted that evidence of matters occurring outside that period are patently relevant to establishing the Respondent's knowledge and, therefore, the foreseeability of loss and damage occurring within the claim period.

L. CQ13 & 14: CAUSATION – BREACH OF ALTERNATIVE DUTY OF CARE

245 The Applicants rely on their primary submissions in respect of causation, loss and damage and on the further submissions at paragraphs [200]-[210] above. In particular, it is submitted that inundation and erosion leading to loss or damage in respect of:

245.1 locations of cultural significance, such as cemeteries and lands on which traditional ceremonies are performed (including, for example, dugong ceremonies performed on the beach);

245.2 an inability to carry on cultural practices such as fishing, camping and/or planting crops on their own traditional lands—

forms part of the Applicants' loss of distinct cultural rights comprising *Ailan Kastom*.

246 However, it is noted that the state of the evidence is not currently exhaustive in circumstances where the Group Members have yet to establish (under the Part IVA regime) any loss or damage that is not common to the Applicants in this case. This will relate primarily to loss and damage suffered on Iama, Warraber, Poruma and Masig, as well as loss and damage suffered by other Group Members on Saibai and Boigu. Accordingly, regardless of whether the Court considers the Applicants to have established any loss and damage, it is important to make clear findings in respect of the Respondent's Duty, standard and breach.

247 It is submitted that the evidence gives rise to a Duty to take reasonable care and this Court is in a position to determine whether that Duty has been breached for the purpose of subsequently considering any loss or damage that is claimed by Group Members.

PART 4. PROPOSED ANSWERS TO COMMON QUESTIONS

M. DUTY OF CARE

248 **Common question 1**

Has climate change had and does it continue to have any or all of the impacts described in paragraph [57] of the 3FASOC and the particulars thereto (the Current Impacts of Climate Change in the Torres Strait)?

249 **Proposed answer**: Yes.

250 **Common question 2**

Will climate change in the future have any of the impacts described in paragraph [59] of the 3FASOC and the particulars thereto (the Projected Impacts of Climate Change in the Torres Strait) if Global Temperature Increase exceeds the Global Temperature Limit?

251 **Proposed answer**: Yes.

252 **Common question 3**

At any relevant time, did or does the Commonwealth owe a duty of care to Torres Strait Islanders to take reasonable steps to:

a) protect Torres Strait Islanders; and/or

b) protect Torres Strait Islanders' traditional way of life, including taking steps to preserve Ailan Kastom; and/or

c) protect the marine environment,

d) from the Current Impacts of Climate Change in the Torres Strait Islands and the Projected Impacts of Climate Change in the Torres Strait Islands?

(See paragraph [81] of the 3FASOC)

253 **Proposed answer**: Yes.

254 **Common question 4**

If the answer to question 3 is 'yes', did or does any such duty of care require the Commonwealth to take reasonable steps to ensure that, having regard to the Best Available Science, it:

a) identifies the Current Impacts of Climate Change in the Torres Strait Islands and the Projected Impacts of Climate Change in the Torres Strait Islands;

b) identifies the risk, scope and severity of the Current Impacts of Climate Change in the Torres Strait Islands and the Projected Impacts of Climate Change in the Torres Strait Islands;

c) identifies the Global Temperature Limit necessary to prevent or minimise many of the most dangerous Current Impacts of Climate Change in the Torres Strait Islands and the Projected Impacts of Climate Change in the Torres Strait Islands;

d) identifies a Best Available Science Target reflecting the Global Temperature Limit identified at subparagraph (c) above to prevent or minimise the Current Impacts of Climate Change in the Torres Strait Islands and the Projected Impacts of Climate Change in the Torres Strait Islands; and

e) implements such measures as are necessary to reduce Australia's GHG emissions consistent with a Best Available Science Target identified at subparagraph (d) above?

(See paragraph [82] of the 3FASOC)

255 **Proposed answer**: Yes.

N. ALTERNATIVE DUTY OF CARE

256 **Common question 5**

At any relevant time, did or does the Commonwealth owe a duty of care to Torres Strait Islanders to take reasonable care to protect against marine inundation and erosion causing:

a) property damage;

b) loss of fulfilment of Ailan Kastom; and/or

c) injury, disease or death?

(See paragraph [81A] of the 3FASOC)

257 **Proposed answer**: Yes.

258 **Common question 6**

If the answer to question 5 is 'yes', did or does such duty of care require the Commonwealth to take reasonable steps to:

a) provide access to predictable funding, including additional funding as required, that was sufficient to construct seawalls on the Torres Strait Islands;

b) lead and coordinate and establish a coherent plan for the provision of funding for the protection of the Torres Strait Islanders from the adverse effects of sea level rise, inundation and erosion through the construction of seawalls?

as part of the Seawalls Project Stage 1 and Stage 2 on Saibai, Boigu, Poruma, Iama, Masig and Warraber (the Seawalls Projects).

(See paragraph [82A] of the 3FASOC, the particulars set out in the applicants' letters dated 12 November 2023 and 20 November 2023 and his Honour's rulings on 14 and 23 November 2023)

(Note: seawalls includes bunds, wave return walls, geotextile bags and associated coastal protection infrastructure)

259 **Proposed answer**: Yes.

O. BREACH OF DUTY OF CARE

260 **Common question 7**

If the answer to questions 3 and 4 is 'yes', did the Commonwealth breach the duty of care by failing to take any, or any reasonable steps to ensure that, having regard to the Best Available Science, it:

a) identified the Current Impacts of Climate Change in the Torres Strait Islands and the Projected Impacts of Climate Change in the Torres Strait Islands;

b) identified the risk, scope and severity of the Current Impacts of Climate Change in the Torres Strait Islands and the Projected Impacts of Climate Change in the Torres Strait Islands;

c) identified the Global Temperature Limit necessary to prevent or minimise many of the most dangerous Current Impacts of Climate Change in the Torres Strait Islands and Projected Impacts of Climate Change in the Torres Strait Islands;

d) identified a Best Available Science Target reflecting the Global Temperature Limit identified at subparagraph (c) above to prevent or minimise the Current Impacts of Climate Change in the Torres Strait Islands and the Projected Impacts of Climate Change in the Torres Strait Islands; and

e) implemented such measures as are necessary to reduce Australia's GHG emissions consistent with a Best Available Science Target identified at subparagraph (d) above;

when:

f) setting and maintaining Australia's 2030 Target;

g) setting and maintaining Australia's Re-affirmed 2030 Target;

h) setting and maintaining Australia's 2050 Target;

i) setting and maintaining Australia's Updated 2030 Target?

(See Paragraphs [82] and [83] of the 3FASOC and the particulars thereto)

261 **Proposed answer**: Yes.

262 **Common question 8**

If the answer to question 7 is 'yes', is there an ongoing breach of the duty of care?

(See paragraph [89] of the 3FASOC)

263 **Proposed answer**: Yes.

P. BREACH OF ALTERNATIVE DUTY OF CARE

264 **Common question 9**

If the answer to questions 5 and 6 is 'yes', did the Commonwealth breach the alternative duty of care by failing to take any, or any reasonable steps to:

a) provide predictable funding necessary to complete all planned seawalls projects;

b) lead and coordinate and establish a coherent plan for the provision of funding for the protection of the Torres Strait Islanders from the adverse effects of sea level rise, inundation and erosion through the construction of seawalls; as part of the Seawalls Project Stage 1 and Stage 2 on Saibai, Boigu, Poruma, Iama, Masig and Warraber (the Seawalls Projects).

(See paragraphs [82A] and [83A] of the 3FASOC, the particulars set out in the applicants' letters dated 12 November 2023 and 20 November 2023 and his Honour's rulings on 14 and 23 November 2023)

265 **Proposed answer**: Yes.

266 Common question 10

If the answer to question 9 is 'yes', is there an ongoing breach of the alternative duty of care?

(See paragraph [89] of the 3FASOC)

267 **Proposed answer**: Yes.

Q. CAUSATION, LOSS AND DAMAGE

268 **Common question 11**

If the answer to question 7 is 'yes', was the breach of the duty of care a cause of Torres Strait Islanders collectively suffering loss of fulfilment of Ailan Kastom arising from damage to or degradation of the land and marine environment of the Torres Strait Islands?

(See paragraph [86] of the 3FASOC)

(Note: this question does not address any specific claims of loss or damage that the applicants or any specific group member may have)

269 **Proposed answer**: Yes.

270 **Common question 12**

If the answer to 8 is 'yes', will the ongoing breach of the duty of care, if not restrained, continue to be a cause of Torres Strait Islanders collectively suffering loss of fulfilment of Ailan Kastom arising from damage to or degradation of the land and marine environment of the Torres Strait Islands?

(See paragraph [86], [87] and [89] of the 3FASOC and the particulars thereto)

(Note: this question does not address any specific claims of any ongoing loss or damage that the applicants or any specific group member may have)

271 **Proposed answer**: Yes.

272 **Common question 13**

If the answer to question 9 is 'yes', was the breach of the alternative duty of care a cause of Torres Strait Islanders collectively suffering loss of fulfilment of Ailan Kastom arising from damage to or degradation of the land and marine environment of the Torres Strait Islands?

(See paragraph [86] of the 3FASOC and the particulars thereto)

(Note: this question does not address any specific claims of loss or damage that the applicants or any specific group member may have)

273 **Proposed answer**: Yes.

274 **Common question 14**

If the answer to question 10 is 'yes', will the ongoing breach of the alternative duty of care, if not restrained, continue to be a cause of Torres Strait Islanders collectively suffering loss of fulfilment of Ailan Kastom arising from damage to or degradation of the land and marine environment of the Torres Strait Islands?

(See paragraph [86] and [89] of the 3FASOC and the particulars thereto)

275 **Proposed answer**: Yes.

R. RELIEF

276 **Common question 15**

What statutory law applies to the claims of the applicants and group members?

(See paragraphs [1b], [1c] and [86e] of the Further Amended Defence)

277 **Proposed answer**: The *Civil Liability Act 2003* (Qld).

278 **Common question 16**

Is the loss of fulfilment of Ailan Kastom, arising from damage to or degradation of the land and marine environment of the Torres Strait Islands compensable under the law of negligence?

279 **Proposed answer**: Yes.

280 **Common question 17**

Can the declaratory and injunctive relief sought by the applicants be granted and, if so, should it be granted?

(See prayers 1, 2 and 3 in the Amended Originating Application)

281 **Proposed answer**: Yes.

Date: 22 April 2024

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