SUPREME COURT OF QUEENSLAND

CITATION:	*Meandarra Aerial Spraying Pty Ltd & Anor v GEJ Geldard Pty Ltd* [2012] QCA 315
PARTIES:	**MEANDARRA AERIAL SPRAYING PTY LTD** ACN 087 259 283 (first appellant) **LACHLAN HILL** (second appellant) **v** **GEJ & MA GELDARD PTY LTD AS TRUSTEE FOR THE G & M GELDARD FAMILY TRUST** ACN 065 705 777 (respondent)
FILE NO/S:	Appeal No 7992 of 2011 SC No 2773 of 2007
DIVISION:	Court of Appeal
PROCEEDING:	General Civil Appeal
ORIGINATING COURT:	Supreme Court at Brisbane
DELIVERED ON:	16 November 2012
DELIVERED AT:	Brisbane
HEARING DATES:	25 & 26 July 2012
JUDGES:	Fraser and White JJA and Mullins J Separate reasons for judgment of each member of the Court, each concurring as to the orders made
ORDERS:	**Appeal dismissed with costs.**
CATCHWORDS:	TORTS – NEGLIGENCE – ESSENTIALS OF ACTION FOR NEGLIGENCE – DUTY OF CARE – IN GENERAL – where first appellant was aerial spraying company and second appellant managing director and chief pilot of company – where second appellant and another pilot engaged by company conducted aerial spraying of properties about 20 km north of respondent's properties – where four days after the spraying, yellowing and damage seen on respondent's cotton crops – where appellants contend trial judge erred in description of duty of care owed – whether the trial judge erred – whether the appellants owed the respondent a duty of care TORTS – NEGLIGENCE – ESSENTIALS OF ACTION FOR NEGLIGENCE – STANDARD OF CARE – GENERALLY – where the appellants contended that the trial

judge erred in finding that the appellants breached their duty of care owed to the respondent – where the appellants argued that a reasonable person in the position of the appellants would not have foreseen that their conduct in spraying as they did involved a risk of damage to the respondent's properties 20 km away – where the appellants argued that the trial judge failed to adequately consider s 9 *Civil Liability Act* 2003 (Qld) – whether the trial judge erred – whether the appellants breached their duty of care owed to the respondent

TORTS – NEGLIGENCE – ESSENTIALS OF ACTION FOR NEGLIGENCE – DAMAGE – CAUSATION – GENERALLY – where the appellants contended that the trial judge erred in finding that it was more probable than not that the damage to the respondent's properties was caused by the spraying by the appellants – where appellants argued that respondent failed to prove causation because each expert who gave evidence on the issue acknowledged that it was not practicable to quantify amount of herbicide that reached respondent's crops and, below a certain quantity, it would not damage those crops – whether trial judge erred in making finding as to causation

TORTS – NEGLIGENCE – ESSENTIALS OF ACTION FOR NEGLIGENCE – DAMAGE – GENERAL – where appellants argued that trial judge erred in finding as to "total quantifiable loss" – where appellants contended that a finding of no proven loss should have been made, or alternatively, a finding to a reduced extent as identified by one expert – whether trial judge erred in her Honour's finding as to assessment of loss

TORTS – NEGLIGENCE – ESSENTIALS OF ACTION FOR NEGLIGENCE – DAMAGE – APPORTIONMENT OF RESPONSIBILITY AND DAMAGES – APPORTIONMENT IN PARTICULAR SITUATIONS AND CASES – where appellants contended trial judge erred in finding it was for appellants to prove respondent's damages should be reduced because of concurrent wrongdoers – where appellants argued trial judge erred in finding that appellants failed to satisfy this onus – where appellants argued trial judge erred by finding appellants liable for entirety of respondent's loss – whether trial judge erred in finding appellants bore onus of proof for existence of concurrent wrongdoers – whether trial judge erred in finding as to non-existence of concurrent wrongdoers

Civil Liability Act 2003 (Qld), s 9, s 30, s 31, s 32

Adeels Palace Pty Ltd v Moubarak (2009) 239 CLR 420; [2009] HCA 48, considered
Bonic v Fieldair (Deniliquin) Pty Limited & Ors [1999] NSWSC 636, considered

Burnie Port Authority v General Jones Pty Ltd (1994) 179 CLR 520; [1994] HCA 13, considered
Dartberg Pty Ltd v Wealthcare Financial Planning Pty Ltd (2007) 164 FCR 450; [2007] FCA 1216, considered
GEJ & MA Geldard Pty Ltd v DN Mobbs & Ors [2010] QSC 220, related
GEJ & MA Geldard Pty Ltd v Mobbs & Ors (No 2) [2012] 1 Qd R 120; [2011] QSC 33, related
Overseas Tankship (UK) Ltd v Morts Dock & Engineering Co Ltd (The Wagon Mound) [1961] AC 388; [1961] UKPC 1, considered
Platt v Nutt (1988) 12 NSWLR 231, considered
Podrebersek v Australian Iron & Steel Pty Ltd (1985) 59 ALJR 492; [1985] HCA 34, considered
Shirt v Wyong Shire Council [1978] 1 NSWLR 631, considered
Smith v London and South Western Railway Company (1870) LR 6 CP 14, not followed
Ucak v Avante Developments Pty Ltd [2007] NSWSC 367, considered
Vairy v Wyong Shire Council (2005) 223 CLR 422; [2005] HCA 62, considered
Watts v Rake (1960) 108 CLR 158; [1960] HCA 58, cited
Wyong Shire Council v Shirt (1980) 146 CLR 40; [1980] HCA 12, considered

COUNSEL: G C Newton SC, with M S Trim, for the appellants
J C Bell QC, with T Pincus, for the respondent

SOLICITORS: CLS Lawyers for the appellants
Woods Hatcher Solicitors for the respondent

[1] **FRASER JA:** The first appellant ("Meandarra") conducted a business which included aerial spraying of herbicide. The second appellant ("Hill") was Meandarra's managing director and chief pilot. In December 2005, he operated one of Meandarra's aircraft used in the aerial spraying of herbicide to control the regrowth of wattle trees on the cattle properties Sherwood and Wallumba in the Condamine district. Baker, another pilot engaged by Meandarra, conducted aerial spraying from a second aircraft. Four days after the spraying, yellowing and damage was seen on the respondent's cotton crops at Elgin and Noonameena, which are about 20 kilometres south of Sherwood and Wallumba.

[2] The respondent alleged that the damage, and consequential loss of cotton yield, were caused by the herbicide. In proceedings in the Trial Division, the respondent claimed damages for negligence from the appellants and from the owners of Sherwood, the manager of Sherwood, the owner of Wallumba, the managers and operators of Wallumba, and the supplier of the herbicide. Before the trial the respondent settled its claims against all defendants other than Meandarra and Hill.

[3] In reasons delivered in June 2010, the trial judge found that the appellants had breached the duty of care they owed to the respondent by spraying the quantities and combinations of chemicals they sprayed in the prevailing weather conditions,

found that the damage to the respondent's cotton was caused by that spraying, and found that the appellants' negligence caused the respondent a total loss of $467,185.45. The trial judge dealt with other issues in further reasons delivered in March 2011 and July 2011. In August 2011, judgment was entered for the respondent against the appellants for $559,540.38, with costs.

[4] The issues in this appeal were summarised in the appellants' amended outline of argument:

> "a. *First*, whether the Learned Trial Judge erred in finding that the appellants had a duty to 'ensure' that the respondent's cotton crops were not damaged by their spraying of land some 20 kilometres to the north ('the duty question');
> b. *Second*, whether the Learned Trial Judge erred in finding that the appellants breached that duty by spraying the herbicides on 15 December 2005 ('the breach question');
> c. *Third*, whether the Learned Trial Judge erred in finding that damage to the respondent's cotton was caused by the '*spray event on 15 December 2005*' ('the causation question');
> d. *Fourth*, whether the Learned Trial Judge erred in finding that the respondent suffered a 'total quantifiable loss' of $461,237.23, being the monetary value of a loss of 0.943 bales of cotton per hectare from the respondent's properties, as a result of the appellants' negligence ('the quantum question'); and
> e. *Finally*, whether the Learned Trial Judge erred in finding that the appellants were jointly and severally liable for the entirety of the respondent's loss because the appellants did not show that the other defendants (the owners and managers of the target properties, all of whom settled prior to trial) and Michael Baker (another aerial applicator, who was not a party) were 'concurrent wrongdoers' for the purposes of s 30 of the *Civil Liability Act 2003* (Qld) ('the Act') ('the proportionate liability question')."

(a) The duty question

[5] The trial judge held that:

> "[29] The defendants clearly have a duty of care which includes taking precautions to avoid spray drift which would cause damage to non-target crops and plants. The defendants' duty is to exercise the care and caution that a reasonable applicator should use in the same or similar circumstances. The duty of an aerial applicator of herbicides was discussed in *Bonic v Fieldair (Deniliquin) Pty Ltd & Ors* where Davies AJ held:
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> > 'The nature of the chemicals being sprayed was such that all persons responsible for the operation, that is the four defendants, had a non delegable duty to ensure that properties in the vicinity of the Rendell land were not damaged by the spraying.'

> [30] Therefore, the plaintiff must essentially establish that the sixth and eighth defendants by spraying the chemicals in the way they did breached their duty of care and that, because of that breach, the sixth and eighth defendants caused the chemicals to drift onto their property in a sufficient quantity to cause the damage alleged.
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> [31] In the present case, the parties submit that the real issue in contention is this question of causation. I agree that this is the central issue."

[6] After an extensive analysis of evidence which related to breach of duty and causation, the trial judge found that the appellants knew that their aerial spraying "…was likely to cause harm to susceptible crops and trees within the proximity of the spraying", "…[i]t was more probable than not that a quantity of the chemicals sprayed on 15 December 2005 at Sherwood and Wallumba reached the plaintiff's cotton fields at Noonameena and Elgin", and "[w]hilst I cannot make a finding as to the level of chemical which could have been deposited, I accept that some of the herbicide was deposited."[1] Under the heading "Were the defendants negligent?" the Trial Judge set out the following conclusions:

> "[130] The duty which the defendants owed is set out in *Bonic v Fieldair (Deniliquin) Pty Ltd & Ors*:
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> '[23] All the defendants would have been aware that aerial spraying of the weedicide 2, 4-D was likely to cause harm to any occupier of a property in the proximity which had susceptible vines, trees and plants on it, if adequate care to avoid harm was not taken. The labels alone made that plain. It cannot be in doubt that it was known to the fourth defendants that the weedicide was a dangerous chemical and that care in its use must be taken to avoid harm.
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> [24] In Burnie Port Authority v General Jones Pty Ltd, the majority made the point that, where activities were carried out which involved the handling or storing of dangerous goods, the duty to take care would not necessarily be discharged by the employment of a competent independent contractor and that each person had a duty to ensure that reasonable care was taken. At 550, the majority said:
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> 'It has long been recognised that there are certain categories of case in which a duty to take reasonable care to avoid a foreseeable risk of injury to another will not be discharged merely by the employment of a qualified and ostensibly competent independent contractor. In those categories of case, the nature of the relationship of proximity gives rise to a duty of care of a

[1] [2010] QSC 220 at [110], [125], [129].

> special and 'more stringent' kind, namely a 'duty to ensure that reasonable care is taken': see Kondis v State Transport Authority (1984) 154 CLR 672 at 686. Put differently, the requirement of reasonable care in those categories of case extends to seeing that care is taken.
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> …
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> Viewed from the perspective of the person to whom the duty is owed, the relationship of proximity giving rise to the non-delegable duty of care in such cases is marked by special dependence or vulnerability on the part of that person: The Commonwealth v Introvigne (1982) 150 CLR 258 at 271, per Mason J.'

> [25] In the present case, the nature of the chemicals being sprayed was such that all persons responsible for the operation, that is the four defendants, had a non-delegable duty to ensure that properties in the vicinity of the Rendell land were not damaged by the spraying.'

> [131] I consider that the reasonable man in the position of the defendants would have foreseen that their conduct in spraying off label concentrations of herbicides in inappropriate weather conditions involved a risk of injury to the plaintiff. I am satisfied that, given the nature and combination of the chemicals being sprayed, the sixth and eighth defendants had a non-delegable duty to ensure that the susceptible cotton crops growing on the plaintiff's properties, which they admitted they were fully aware of, were not damaged by the spraying.

> [132] I consider that the defendants breached the duty of care they owed to the plaintiff by spraying the quantities and combinations of chemicals in the weather conditions which prevailed on 15 December 2005."

[7] The appellants submitted that in [131] of the reasons the trial judge misdirected herself that the appellants owed the respondent a strict duty to avoid damaging the respondent's cotton crops and that this misdirection contributed to error in the trial judge's conclusion that the appellants were negligent. The respondent argued that there was no real issue at the trial that the appellants owed the respondent a duty of care; the parties' focus was upon causation and, to a lesser extent, breach of the appellants' duty of care; and the paragraph upon which the appellants focussed was concerned with the standard of care owed by the appellants in the particular circumstances of the case. The respondent submitted that elsewhere in the reasons the trial judge correctly identified the duty as a duty to take reasonable care and that the result was unaffected by the error for which the appellants contended.

[8] The second sentence of [131] of the reasons refers to a "non-delegable duty". No question arose whether any duty owed by either appellant could be delegated to an independent contractor because Hill himself conducted the spraying operation, it was admitted that Meandarra was vicariously liable for the alleged negligence of Hill and Baker, and it was admitted that both appellants sprayed the herbicides. The references to the duty being "non-delegable" were inapt. In the same paragraph, the trial judge described the duty as a "duty to ensure" that the respondent's cotton crops were not damaged by the spraying, an expression adopted from the quoted passage of Davies AJ's reasons in *Bonic v Fieldair (Deniliquin) Pty Ltd & Ors*. That too was inapt. The respondent did not contest the appellants' contention that the relevant duty was instead a duty to take reasonable care to avoid a foreseeable risk of injury to the respondent. In *Burnie Port Authority v General Jones Pty Ltd*[2] Mason CJ, Deane, Dawson, Toohey and Gaudron JJ said:

> "Where a duty of care arises under the ordinary law of negligence, the standard of care exacted is that which is reasonable in the circumstances. It has been emphasized in many cases that the degree of care under that standard necessarily varies with the risk involved and that the risk involved includes both the magnitude of the risk of an accident happening and the seriousness of the potential damage if an accident should occur. [See, e.g., *Thompson v Bankstown Corporation* (1953), 87 C.L.R. at p. 645; *Wyong Shire Council v. Shirt* (1980), 146 C.L.R. 40, at pp. 47-48.] Even where a dangerous substance or a dangerous activity of a kind which might attract the rule in *Rylands v. Fletcher* is involved, the standard of care remains 'that which is reasonable in the circumstances, that which a reasonably prudent man would exercise in the circumstances'. [*Adelaide Chemical & Fertilizer Co. Ltd. v. Carlyle* (1940), 64 C.L.R. 514, at p. 523.] In the case of such substances or activities, however, a reasonably prudent person would exercise a higher degree of care. Indeed depending upon the magnitude of the danger, the standard of 'reasonable care' may involve a 'degree of diligence so stringent as to amount practically to a guarantee of safety'. [*Donoghue v. Stevenson* [1932] A.C., at p. 612, per Lord Macmillan; *Adelaide Chemical & Fertilizer Co. Ltd. v. Carlyle* (1940), 64 C.L.R. at p. 523, per Starke J.; and generally, *Stevens v. Brodribb Sawmilling Co. Pty. Ltd.* (1986), 160 C.L.R. at pp. 30, 42.]"

Having regard to the potentially catastrophic and widespread consequences of careless aerial spraying of potent herbicides the appellants were obliged to fulfil a very high standard of care, but their duty remained a duty to take reasonable care.

[9] However, other passages of the trial judge's reasons suggest that the trial judge's reference to a non-delegable "duty to ensure", rather than a "duty to take care", did not influence the result. In holding (at [29]) that the appellants owed a duty of care, the trial judge cited *Bonic* in support of the correct conclusion that the appellants' duty was "…to exercise the care and caution that a reasonable applicator should use in the same or similar circumstances". The trial judge considered whether the appellants owed and breached a duty to the respondent to take reasonable care to avoid a foreseeable risk of injury and whether the claimed breach of that duty caused the respondent's claimed loss. Under the heading "The plaintiff's claim in negligence", the trial judge observed[3] that it was clear from *Burnie Port Authority*

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2 (1994) 179 CLR 520 at 554.

3 [2010] QSC 220 at [19].

v General Jones Pty Ltd[4] that the issues "should be dealt with according to the ordinary principles of negligence" (a quote from *Bonic v Fieldair (Deniliquin) Pty Ltd & Ors* [5]). The trial judge referred[6] to the respondent's claim that the defendants breached "…the duty of care and…suffered loss as the result of negligence" and the particulars of negligence and loss, and observed[7] that the question whether a duty was owed to the respondent involved consideration of the proximity of the relationship and the reasonable foreseeability of the injury caused to the respondent.

[10] In subsequent paragraphs the trial judge quoted the well known passage in *Wyong Shire Council v Shirt* [8] concerning foreseeability in the context of breach of duty, in which Mason J described a foreseeable risk as one which was "not far-fetched or fanciful". The trial judge observed[9] that the relevant principles examined by Mason J were dealt with in ss 9, 10, 11 and 12 of the Act, that once a duty to the plaintiff was established it must be shown that the duty was breached, and that the determination of that issue involved consideration of whether the event which gave rise to the injury was reasonably foreseeable and whether the defendants failed to do what a reasonable person would have done in the circumstances. Subsequently, the trial judge analysed the evidence of the pilots who conducted the aerial spraying for the expressed purpose of deciding whether they had breached their duty of care.[10] That analysis that would have been unnecessary had the trial judge proceeded on the view that the appellants' duty was to ensure that the respondent's crops were not damaged by the spraying. Finally, the trial judge quoted a correct description of the duty to take care in [130] (from [24] of *Bonic*), and the conclusion expressed in [132] indicates an appreciation that the relevant duty was a duty to take care that a foreseeable risk of damage was avoided.

[11] The trial judge's reasons as a whole clearly convey that the mistaken expression of the duty in [131] did not influence her Honour's conclusions that the appellants owed and breached a duty to the respondent to take reasonable care that their aerial spraying did not damage the respondent's cotton crops and that breach caused the respondent's claimed loss.

[12] The appellants also argued that the appellants' duty of care did not extend to the respondent because the respondent did not prove that it was foreseeable that the herbicide would drift to and damage the respondent's crops. The respondent correctly submitted that this was not in issue by the end of the trial. The question whether the appellants owed the respondent a duty of care was in issue on the pleadings, but in final submissions the appellants acknowledged that they did owe a duty of care. The appellants expressly accepted that their duty included "…taking precautions to avoid drift which would cause damage to non-target crops and plants", and they submitted that, whilst the duty did not make them strictly liable should drift occur, they owed a duty "…to exercise the care and caution that a reasonable applicator should use in the same or similar circumstances."[11] The appellants' argument that this did not amount to an acknowledgment that they owed

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4 (1994) 179 CLR 520.
5 [1999] NSWSC 636.
6 [2010] QSC 220 at [20] – [22].
7 [2010] QSC 220 at [24].
8 (1980) 146 CLR 40 at 47-48.
9 [2010] QSC 220 at [27] – [28].
10 [2010] QSC 220 at [86].
11 Submissions of the sixth and eighth defendants at paragraphs 30 and 31.

a duty to the respondent does not withstand scrutiny. In final submissions, the respondent contended that the appellants owed it a duty of care. The appellants' concession that they did owe a duty of care was made without reservation. The appellants' comprehensive written submissions occupied a further 43 pages after that concession without any suggestion that the appellants did not owe a duty of care to the respondent. Under the heading "Conclusions from the evidence", the appellants confined their argument to contentions that they did not breach "their duty of care" and that they did not cause the respondent's loss. It was on those bases, and arguments about proportionate liability, that the appellants urged that judgment should be entered in their favour against the respondent. It is not open to the appellants to contend on appeal that they did not owe a duty of care to the respondent.

[13] Furthermore, the relevant grounds of appeal contend only for an incorrect description of the duty of care and that the error falsified the trial judge's finding that the appellants breached their duty of care.[12] The notice of appeal does not contend that the trial judge erred in holding that the appellants owed the respondent a duty of care. In any event, my conclusion in relation to the breach question that the risk of damage to the respondent's crops was foreseeable dictates the conclusion that the risk was foreseeable in the sense required for a finding that there was a duty of care.

(b) The breach question

[14] The trial judge's finding that the appellants breached their duty of care to the respondent was informed by findings of fact that:

(a) Hill and Baker knew that the respondent grew cotton at Elgin and Noonameena about 20 kilometres south of Sherwood and Wallumba.[13]

(b) The appellants aerially sprayed herbicide which included Metsulfuron, Grazon, and Brushwet in 50 litres of water per hectare at Sherwood and Wallumba.[14]

(c) If applied in sufficient quantities, Metsulfuron and Grazon would adversely impact cotton, and Brushwet may enhance the uptake of those chemicals into cotton plants.[15]

(d) The appellants knew that the spraying of those chemicals "was likely to cause harm to susceptible crops and trees within the proximity of the spraying".[16] (Hill gave evidence that he knew that the herbicide might damage those crops if it drifted onto them.)

(e) The Metsulfuron label explicitly warned against "spraying in conditions which favour temperature inversions, still conditions, or in winds likely to cause drift onto sensitive crops or fallow areas to be planted to sensitive crops".[17]

(f) Metsulfuron was applied in excess of 14 times the correct rate and Brushwet was applied in excess of 10 times the correct rate.[18]

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12 Those issues were raised by paragraphs 2(a) and (d) (especially (d)(i)) of the Notice of Appeal.
13 [2010] QSC 220 at [88].
14 [2010] QSC 220 at [149](i), (ii).
15 [2010] QSC 220 at [149](iii), (iv).
16 [2010] QSC 220 at [110].
17 [2010] QSC 220 at [2].
18 [2010] QSC 220 at [149](v) and (vi).

(g) Those chemicals should not have been sprayed from fixed wing aircraft.[19]

(h) Contrary to the evidence of Hill, for a significant period during the spraying operation the wind was blowing from a north easterly direction[20] (that is from Sherwood and Wallumba towards the respondent's cotton crops at Elgin and Noonameena).

(i) Contrary to the evidence of Baker and Hill, the temperature, wind speed and humidity were inappropriate for aerial spraying during a significant period of that spraying.[21]

(j) Although the Department of Primary Industries preferred wind speed for aerial spraying was between four and 15 kph, the maximum wind speeds during the spraying period, as logged every 15 minutes at adjacent weather stations, varied between 23 and 35 kms per hour (Hopelands) and between 17 and 29 kms per hour (Alderton). (The trial judge rejected Hill's evidence that he applied chemicals at wind speeds of "up to 15, possibly gusting to 20 kilometres per hour",[22] having regard also to substantial conflicts between Hill's and Baker's log books, and Hill's concession that his records were not accurate.[23])

(k) Contrary to the evidence of Hill and Baker that they never released the herbicides as high as 15 metres and that they sprayed at a height of about 1.5 to 2 metres above the wattle regrowth (arguably giving a release height of between 4 and 6 metres above the ground), the trial judge found that there was damage to trees which were estimated to be as tall as 18 metres and that at times the release height was "considerably higher" than six metres.[24]

[15] The trial judge also found that "[a]ll experts agree that it is theoretically possible for a quantity of herbicide, predominantly Metsulfuron, to have drifted 20 kms from the spray site."[25]

The arguments

[16] The appellants argued that the trial judge's finding that they breached their duty of care resulted from a failure to apply the relevant provisions in the Act. They submitted that, upon a prospective analysis, there was no evidence that damage to the respondent's cotton crops more than 20 kilometres away was a risk which the appellants "knew or ought reasonably to have known", and it was therefore not "foreseeable" in terms of s 9(1)(a) of the Act. The appellants argued that the evidence went no higher than an opinion by an expert witness retained by the respondent, Mr Gordon, that his analysis demonstrated that it "may be possible" that some of the herbicide sprayed at Sherwood and Wallumba was deposited 20 kilometres downwind[26] and the statement in the joint expert report that "…it is theoretically possible for a quantity of herbicide, predominantly Metsulfuron, to

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19 [2010] QSC 220 at [149](viii).
20 [2010] QSC 220 at [94], [97], [99]-[102], [149](ix).
21 [2010] QSC 220 at [92], [93], [94], [97], [99]-[102], [149](ix).
22 Evidence of Hill at 8-32.
23 [2010] QSC 220 at [99] – [101].
24 [2010] QSC 220 at [103] – [108], [149](xiii).
25 [2010] QSC 220 at [149](xiv).
26 Gordon's amended report dated 3 August 2009, p 11(AR 1901).

have drifted 20 kms from the spray site". The appellants argued that the trial judge erred by focussing on the issue of causation rather than upon the prospective analysis required by ss 9 and 10 of the Act.

[17] Senior counsel for the appellants undertook an extensive analysis of the expert evidence relevant to causation. He disavowed any challenge to the trial judge's finding that some of the herbicide drifted to the affected properties. In this appeal the dispute about causation concerned only the question whether the cotton crops were damaged by so much of the herbicides as drifted that far. This dispute was submitted to be relevant to the breach question. The appellants' senior counsel argued that the extent of the dispute told against a conclusion that damage after a drift of that distance was reasonably foreseeable. In the course of his analysis of the expert evidence about causation, senior counsel emphasised the contention that the scientific models could not predict the likelihood of dispersion of sufficient chemical as far as 20 kilometres and the agreement amongst the experts that it was impossible to predict the quantities of chemicals which might be deposited so far away. Reference was made to limitations upon the scientific models in this respect, including their inability to take account of variables such as variations in wind direction and the diluting effect of lateral dispersion.

[18] The respondent pointed out that the trial judge had referred to the relevant provisions of the Act, the necessity to consider whether the event giving rise to the injury was reasonably foreseeable, and whether the appellants failed to do what a reasonable person would have done in the circumstances. The respondent argued that Mason J's analysis in *Wyong Shire Council v Shirt* quoted by the trial judge substantially reflected the relevant provisions of the Act. The respondent argued that a high degree of care was required because of the dangerousness of the herbicide sprayed by the appellants (the respondent referred to *Burnie Port Authority v General Jones Pty Ltd*[27]) and that there were ample bases in the evidence for finding that the damage to the respondent's crops was foreseeable, that a high standard of care was appropriately imposed upon the appellants, and that the applicable standard was not met. The respondent submitted that there was an inconsistency in the appellants' challenge to the finding of foreseeability and their concession, implicit in their arguments under the duty question, that they owed a duty of care to the respondent, because foreseeability was a condition of the existence of a duty of care.

[19] The respondent argued that the appellants' argument inappropriately focussed upon the question whether damage to the respondent's cotton crops was foreseeable, rather than upon the question whether a reasonable person in the appellants' position would have foreseen the possibility of damage either to the respondent or to a class of persons which included the respondent; and that the appellants' analysis of the expert evidence upon causation did not negate the finding that the damage was foreseeable. It was submitted that the reference in the trial judge's reasons to a "theoretical" possibility of the herbicide spray drifting 20 kilometres related to causation rather than foreseeability, that the trial judge found that the spray did reach the respondent's property, and there was no challenge to the further finding that the spray also damaged property about six kilometres from the spraying operation.

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27 (1994) 179 CLR 520 at 554.

Consideration

[20] In *Wyong Shire Council v Shirt* [28] Mason J explained that his analysis concerned "foreseeability in the context of breach of duty, the concept of foreseeability in connexion with the existence of the duty of care involving a more generalized enquiry."[29] Similarly, in *Vairy v Wyong Shire Council*[30] Gummow J referred to Glass JA's observation in *Shirt v Wyong Shire Council*[31] that "… the existence or non-existence of a duty of care fell to be considered at 'a higher level of abstraction' than some factual considerations which were entirely relevant to the breach question…" and observed that "…in respect of breach, the close attention required to the totality of the circumstances by what has become known as the "*Shirt* calculus" propounded by Mason J[32] made good the distinction which Glass JA had drawn respecting levels of abstraction in dealing with duty and breach questions." It follows that there was no necessary incongruity between the appellants' concession at trial that a duty of care was owed and their contention that the duty was not breached because the relevant risk was not foreseeable.

[21] The present issue relates to breach, not duty. In that respect, the Act provides:

> "**9. General principles**
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> (1) A person does not breach a duty to take precautions against a risk of harm unless -
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> (a) the risk was foreseeable (that is, it is a risk of which the person knew or ought reasonably to have known); and
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> (b) the risk was not insignificant; and
>
> (c) in the circumstances, a reasonable person in the position of the person would have taken the precautions.
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> (2) In deciding whether a reasonable person would have taken precautions against a risk of harm, the court is to consider the following (among other relevant things) –
>
> (a) the probability that the harm would occur if care were not taken;
>
> (b) the likely seriousness of the harm;
>
> (c) the burden of taking precautions to avoid the risk of harm;
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> (d) the social utility of the activity that creates the risk of harm.
>
> **10 Other principles**
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> In a proceeding relating to liability for breach of duty happening on or after 2 December 2002 –
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> (a) the burden of taking precautions to avoid a risk of harm includes the burden of taking precautions to avoid similar risks of harm for which the person may be responsible; and

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28 (1980) 146 CLR 40 at 47-48.

29 (1980) 146 CLR 40 at 47.

30 (2005) 223 CLR 422 at [71]-[72].

31 *Shirt v Wyong Shire Council* [1978] 1 NSWLR 631 at 639.

32 (1980) 146 CLR 40 at 47-48.

> (b) the fact that a risk of harm could have been avoided by doing something in a different way does not of itself give rise to or affect liability for the way in which the thing was done; and
>
> (c) the subsequent taking of action that would (had the action been taken earlier) have avoided a risk of harm does not of itself give rise to or affect liability in relation to the risk and does not of itself constitute an admission of liability in connection with the risk."

[22] For claims of the present kind, the considerations to which the plurality referred in *Burnie Port Authority v General Jones Pty Ltd*[33] as justifying variations in the degree of care required to meet the standard of reasonable care are now reflected in s 9(1)(c) and, particularly, ss 9(2)(a) and (d), of the Act, but it remains necessary for a plaintiff to demonstrate that the criteria in ss 9(1)(a) and (b) are fulfilled. In *Adeels Palace Pty Ltd v Moubarak*[34] the High Court emphasised the centrality of the provisions of the very similar *Civil Liability Act* 2002 (NSW) to questions of breach of duty (and causation).[35] It was accepted for the purposes of argument in that case that there was a risk of which the defendant knew or ought to have known[36] and that the relevant risk "was not insignificant". The question was whether a reasonable person in the position of the defendant would have taken the precautions that the plaintiffs alleged should have been taken under ss 5B(1)(c) and 5B(2), provisions which are similar to s 9(1)(c) and s 9(2) of the Act. The High Court observed that the relevant questions were to be answered,

> "prospectively,[37] not with the wisdom of hindsight … they were to be assessed *before* the function [in which the plaintiffs were injured] began, not by reference to what occurred that night."
>
> and that;
>
> "The points to be made that are of general application are first, that whether a reasonable person would have taken precautions against a risk is to be determined prospectively, and secondly, that the answer given in any particular case turns on the facts of that case as they are proved in evidence."[38]

[23] The Act does not codify the common law but its provisions must be applied in all cases in which they are applicable. The construction of the New South Wales provisions similar to ss 9(1)(a) and (b) of the Act was not in issue in *Adeels Palace Pty Ltd v Moubarak* but the question whether a risk was not insignificant and foreseeable in terms of those provisions must also be determined prospectively. The trial judge did not find otherwise, but it is in issue whether the trial judge applied the statutory criteria in finding that the appellants breached their duty of care to the respondent.

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33 (1994) 179 CLR 520 at 554.

34 (2009) 239 CLR 420.

35 See, in particular, at [11], [15], [27], [39] and [41].

36 The word "reasonably" in s 9(1)(a) of the *Civil Liability Act* 2003 was not in the otherwise identical provision in s 5B(1)(a) of the *Civil Liability Act* 2002 (NSW).

37 *Vairy v Wyong Shire Council* (2005) 223 CLR 422 at 461-463 [126]-[129].

38 (2009) 239 CLR 420 at 440 [40].

[24] For claims governed by the common law, *Shirt* settled the previous debate about the degree of probability which was required before a risk could be found to be foreseeable for the purposes of deciding whether a defendant had breached a duty of care; a foreseeable risk was one which was "not far-fetched or fanciful". The parties' arguments in this appeal raise the question whether the test is different for claims governed by the Act. The fact that the text of s 9(1)(b) differs from Mason J's description itself suggests that it did change the common law for claims to which it is applicable. So much is confirmed by extrinsic evidence, which is admissible in the interpretation exercise if the provision is ambiguous or to confirm its ordinary meaning.[39]

[25] The second reading speech for the *Civil Liability Bill* included the following:

> "The bill modifies the general law regarding breach of the duty of care owed by one person to another. The test is, however, a restatement of the common law principles identified by His Honour Mr Justice Ipp, using language considered by His Honour as being appropriate for that purpose."[40]

The statement that the Bill modified the general law is confirmed by reference to the "restatement of the common law" mentioned in the second sentence. That was a reference to the September 2002 final report of a panel chaired by Ipp J.[41] The Explanatory Notes for the Bill recorded that the Bill implemented relevant recommendations made in that report, subject to "pertinent submissions"[42] (none of which appear to bear upon the present issue.). The presently relevant passage in the report makes it plain that the expression "not insignificant" was intended to change the effect of the equivalent element in the "*Shirt* formula". After adverting to "…a danger that *Shirt* may be used to justify a conclusion – on the basis that a foreseeable risk was not far-fetched or fanciful – that it was negligent to take precautions to prevent the risk materialising, and to do this without giving due weight to the other elements of the negligence calculus",[43] the report continued:

> "7.15 One suggestion that has been made for dealing with this problem is to modify the formula laid down in *Shirt* by replacing the phrase 'not far-fetched or fanciful' with some phrase indicating a risk that carries a higher degree of probability of harm. … The Panel favours the phrase 'not insignificant'. The effect of this change would be that a person could be held liable for failure to take precautions against a risk only if the risk was 'not insignificant'. The phrase 'not insignificant' is intended to indicate a risk that is of a higher probability than is indicated by the phrase 'not far-fetched or fanciful', but not so high as might be indicated by a phrase such as 'a substantial risk'. The choice of a double negative is deliberate. We do not intend the phrase to be a synonym for 'significant'. 'Significant' is apt to indicate a higher degree of probability than we intend."

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39 *Acts Interpretation Act* 1954, s 14B(1).

40 Hansard, 11 March 2003, 367 (Attorney-General and the Minister for Justice).

41 "Final report of the review of the law of negligence", D Ipp, P Cane, D Sheldon, I Macintosh, Treasury Department, Commonwealth of Australia, October 2002.

42 Explanatory Notes for the Civil Liability Bill 2003.

43 Review of the Law of Negligence Final Report at 7.14.

[26] The respondent referred to Chesterman J's statement in *Pollard v Trude*[44] that the replacement in s 9(1)(b) of "not insignificant" for the common law formulation of "not far fetched or fanciful" added little in clarity. Nevertheless, the provision was designed to increase the degree of probability of harm which is required for a finding that a risk was foreseeable. I think that it did produce some slight increase in the necessary degree of probability. A far-fetched or fanciful risk is necessarily so glaringly improbable as to be insignificant, but the obverse proposition may not necessarily be true. The generality of these descriptions makes it difficult to be dogmatic about this, but the statutory language does seem to convey a different shade of meaning. The difference is a subtle one. The increase in the necessary degree of probability is not quantifiable and it might be so minor as to make no difference to the result in most cases. Nevertheless, in deciding claims to which the Act applies the "not insignificant" test must be applied instead of the somewhat less demanding test of "not far-fetched or fanciful".

[27] Did the trial judge apply the statutory criteria? The trial judge found in terms that the risk was foreseeable and, despite the absence of an express finding that the risk was "not insignificant", the better view is that the trial judge applied that criterion. The trial judge did not quote s 9, but her Honour did record that the relevant principles concerning breach of duty examined by Mason J in *Wyong Shire Council v Shirt* [45] "are dealt with in ss 9, 10, 11 and 12 of [the Act]."[46] That does not convey a misapprehension that the common law criteria relating to breach remained applicable. Nothing in the trial judge's reasons suggests the surprising conclusion that the trial judge, having acknowledged the applicability of s 9, failed to apply its terms. The appellants' argument that the trial judge did not apply ss 9(1)(a) and (b) in holding that a "reasonable man in the position of the defendants would have foreseen that their conduct in spraying off label concentrations of herbicides in inappropriate weather conditions involved a risk of injury to the plaintiff"[47] and that "the defendants breached the duty of care they owed to the plaintiff by spraying the quantities and combinations of chemicals in the weather conditions which prevailed on 15 December 2005" [48] should not be accepted.

[28] It is necessary next to consider the appellants' factual challenge to the trial judge's finding that a risk of damage to the respondent's crops was foreseeable. This challenge is not answered by the fact that damage to other farmers' crops much closer to the site of the spraying was readily foreseeable as a not insignificant risk. It is correct, as the respondent argued, that it is sufficient if it was foreseeable as a not insignificant risk that the defendant's conduct involved a risk of injury "to the plaintiff or to a class of persons including the plaintiff"[49] but it does not follow that a plaintiff may recover for injury to it that was not foreseeable. The respondent did not cite authority for such a proposition and such authority as I have found is not reconcilable with the modern law. A closely analogous case is *Smith v London and South Western Railway Company*,[50] in which it was found that the carelessness of the railway company led to a fire breaking out between the rails and a hedge. The

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44 [2008] QSC 119 at [39].
45 (1980) 146 CLR 40 at 47-48.
46 [2010] QSC 220 at [27].
47 [2010] QSC 220 at [131].
48 [2010] QSC 220 at [132].
49 *Council of the Shire of Wyong v Shirt* (1980) 146 CLR 40 per Mason J at 47.
50 (1870) LR 6 CP 14. This decision is discussed in *Law of Torts*, 4th Edition, Balkin & Davis, Butterworths, (2009) at 200-201.

fire was carried by a high wind across a field and over a road, where it burnt the plaintiff's cottage 200 yards away. Brett J, the sole dissentient in the Court of Common Pleas, held that, although the railway company ought to have anticipated that their engines might emit sparks which would start a fire, no reasonable man could have foreseen that the fire would consume the hedge and pass across the field so as to get to the plaintiff's cottage.[51] The majority (Keating J and Bovill CJ) reached the contrary view on the evidence. That court's decision was unanimously affirmed in the Exchequer Chamber, but Kelly CB, Bramwell B, Channell B and Blackburn J affirmed the decision on the different basis that, in the words of Kelly CB[52] "[i]t may be that they did not anticipate, and were not bound to anticipate, that the plaintiff's cottage would be burnt as a result of their negligence; but…there was negligence…and…they thus became responsible for all the consequences of their conduct, and … the mere fact of the distance of this cottage from the point where the fire broke out does not affect their liability…". If that were good law, the respondent was entitled to succeed simply because damage to the crops of farmers closer to the site of the spraying was foreseeable as a significant risk and the conditions for a finding of negligence other than foreseeability were satisfied, but it is not the law. *Smith v London and South Western Railway Company* was relied upon in *In re Polemis & Furness Withy & Co*.[53] Neither decision survived the Privy Council's decision in *Overseas Tank Ship (UK) Ltd v Morts Dock & Engineering Co Ltd* ("The Wagon Mound").[54] In any case, the approach in *Smith v London and South Western Railway Company* is not reconcilable with s 9(1)(a) of the Act and the insistence upon foreseeability of the plaintiff's injury as one of the conditions of a finding of breach of duty of care in numerous High Court decisions, including *Wyong Shire Council v Shirt* .

[29] The critical question is whether the evidence supports the conclusion that damage to the respondent's crops was foreseeable as a not insignificant risk. A pilot with extensive experience in aerial spraying, Gale, was called by the respondent. He gave evidence that strong air speed or wind speed would increase the risk of off-target drift, he would not have sprayed in the conditions prevailing on 15 December 2005, he would not have sprayed Metsulfuron at the concentrations at which it was sprayed without obtaining special permission, and the increased potency of the chemical increased the risk of damage. The appellants emphasised that Gale did not give evidence that there was a risk of damage to the respondent's cotton crops. That is so. The respondent did not adduce any direct evidence that the appellants ought reasonably to have known of such a risk,[55] but the question is whether the inference should be drawn from the whole of the relevant evidence that the appellants ought reasonably to have known of a not insignificant risk that the herbicides they sprayed would drift to and damage the respondent's cotton crops.

[30] The relevant evidence in support of the respondent's case upon that issue also included the following. Hill agreed that drift was at the "forefront [of] every agricultural pilot's mind" and that it was important to know the susceptible crops in "the district".[56] He agreed that drift damage to cotton was a major issue with the

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51 (1870) LR 5 CP 98 at 103.

52 (1870) 6 LR CP 14 at 20.

53 [1921] 3 KB 360.

54 [1961] AC 388; see at 416 and 421-426.

55 Contrast *Bonic v Fieldair (Deniliquin) Pty Limited & Ors* [1999] NSWSC 636, in which there was evidence that, in calm conditions, spray drifted 15 kilometres on one occasion and 25 kilometres on another occasion.

56 Transcript 6-68.

spraying of Metsulfuron and that he was spraying an "off label product" for such a crop.[57] He disagreed that the drift occurred because the conditions were not as good as he thought; he attributed damage at an adjoining property to the high concentration of Metsulfuron; and he agreed that increases in the concentration of the herbicide could be reflected in increases in the geographical extent of herbicidal damage. Hill agreed that the concentrations and rates of chemical he sprayed posed a "fairly significant risk to crops" if there was drift, depending upon how far away and where the crops were.[58] (In that respect, the trial judge found that the appellants knew that aerial spraying was likely to cause harm to crops "within the proximity of the spraying".[59]) Hill's evidence that the wind was not blowing in the direction of the respondent's cotton crop was inconsistent with the evidence of the records of the adjacent weather stations accepted by the trial judge. Hill gave evidence that the reason why he and Baker stopped spraying for two hours was that, with the mix of chemicals they were spraying, the herbicide should not have been applied when the wind speed was greater than 15 kilometres per hour, that if he sprayed when the winds exceeded 20 kilometres per hour that was unacceptable, and that spraying when the wind speed was too high could have an effect upon the risk of damage, but the trial judge did not accept Hill's evidence about the wind speed. The effect of the trial judge's findings summarised in [14] of these reasons, is that Hill and Baker sprayed very large quantities of Metsulfuron at impermissibly high concentrations (fourteen times the correct rate) into the atmosphere from much greater heights than (up to more than double) the maximum heights which were appropriate for that operation and at wind speeds which were much higher than (up to more than double) the appropriate maximum wind speeds. On this evidence, the risk of damage to crops downwind of the spraying operation seems obvious, even though the geographical extent of such damage may have been unpredictable.

[31] The appellants relied upon Hill's evidence that he did not foresee the damage. Hill gave evidence that he would put a job off if there was a susceptible crop which should not be subjected to the chemical within a reasonable distance, "normally … a couple of kilometres …".[60] He also gave evidence of his belief that the spraying at Sherwood and Wallumba had nothing to do with the respondent's cotton:

> "Just at the sheer distance of it, just – initially it was just straight out the distance, it's just too far. I mean, you wouldn't even consider something 20 kilometres away as a job north. I mean, how far do we go?"[61]
>
> …
>
> "…we could have had nothing…to do with it, one, because the wind wasn't never blowing in the direction of the cotton while I was flying; and the second was that 20 kilometres is just – you know, 10 years of flying, 20 kilometres, if you mention it to any aerial operator would say there's not a hope in the world, especially if you're not flying in some sort of inversion condition, where you're not sure where it's going."[62]

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57 Transcript 8-36 (Appeal Record 675).
58 Transcript 8-40 (Appeal Record 679).
59 [2010] QSC 220 at [110].
60 Transcript 6-69 (Appeal Record 563).
61 Transcript 6-72 (Appeal Record 566).
62 Transcript 6-74 (Appeal Record 568).

[32] This evidence must be understood in the context of the adverse findings summarised in [14] of these reasons. Hill's reasons for believing that there was no risk to the respondent's crops were that the wind was not blowing in the direction of the respondent's cotton whilst he was flying and "any aerial operator would say there's not a hope in the world, especially if you're not flying in some sort of inversion condition, where you're not sure where it's going." As to the first reason, the trial judge found that the wind was blowing in the direction of the respondent's crops. That finding was referable to contemporaneous records produced at nearby weather stations. It was not susceptible of appellate challenge. As to the second reason, whilst it was common ground that the appellants did not spray in inversion conditions, Hill's evidence implies an awareness that at least in one atmospheric condition the spray might drift as far as 20 kilometres. That suggests a risk to susceptible crops which are so distant. Whilst Hill's evidence also suggests that he believed that spray drift of 20 kilometres was not foreseeable in the prevailing atmospheric conditions, there was no suggestion that, in any previous spraying operation known to him, the applicator had sprayed the same quantity of potent herbicides in the excessive concentrations, at the excessive heights, and during the excessive wind speeds, found by the trial judge.

[33] The appellants relied upon the fact that counsel for the respondent did not put to Hill or Baker that they knew that there was a foreseeable risk of damage as far away as 20 kilometres, but the appellants did not contend that Hill and Baker were not already on notice of the case to that effect made by the respondent. Furthermore, the respondent's case accepted by the trial judge was not that Hill and Baker actually foresaw the risk, but that "…the reasonable man in the position of the defendants would have foreseen…"[63] the risk. The appellants did not argue that the bases of this case were not sufficiently put to the appellants' witnesses.

[34] The expert evidence upon which the appellants extensively relied in relation to the breach question did not require the trial judge to find that the damage to the respondent's cotton was not foreseeable. Rather, considered in the context of other evidence and the trial judge's findings, aspects of that evidence support the trial judge's conclusions. The experts who gave evidence upon the question whether the herbicide might have drifted to and damaged the respondent's cotton crops expressed opinions based upon the application of scientific models, including the "AgDisp Model". It was uncontroversial that this model had been available and in use for many years. On that topic, an expert called by the respondent, Bullen, gave evidence that the model was "very useful as a predictive tool to indicate whether it [the Multsufuron] might have gone that distance" and that he had used it "…extensively in a lot of spray drift claims over a lot of years …"[64] and Hill gave evidence that he was familiar with it and that he had used it over the years.[65] There were extensive factual disputes about the parameters which should be used in the model (wind speed, spraying height, vegetation height, etc.), but the trial judge accepted that, using the correct parameters, the model indicated that some of the herbicide might be deposited as far away as 20 kilometres. As the trial judge recorded, an expert called by the respondent, Gordon, and an expert called by the appellants, Tremain, agreed with that conclusion at the concurrent evidence session,

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63 [2010] QSC 220 at [131].

64 Transcript 5-61.

65 Transcript 8-32. Hill's following evidence that the respondent's expert witness had used wrong parameters in applying the model was inconsistent with the trial judge's findings.

although they disagreed about the quantities which could have been deposited and whether those quantities would damage cotton crops.[66] The trial judge found that the AgDisp Model was a "useful guide to potential deposition", that the agreed facts adopted by Gordon and Tremain for the purposes of the joint expert report "…were a useful basis from which to estimate whether conclusions could be drawn", and that Gordon's statement in his 31 July 2009 report that the AgDisp Model indicated the possibility of the deposit of some chemical at a distance of 20 kilometres was correct.[67]

[35] The appellants challenged the accuracy of Gordon's statement on the basis that some of the figures he used in applying the model (notably including the average height of the ground cover on the target properties) were incorrect, but the relevant findings were supported by Gordon and Tremain's subsequent joint report. The conclusions in the joint report were referable to figures which were not affected by the appellants' criticisms. To the contrary, two parameters used in the joint report seem unduly favourable to the appellants in light of the trial judge's findings summarised in [14](j) and (k) of these reasons:

(a) A wind speed of five metres per second (equivalent to 18 kilometres per hour)[68] was used even though the trial judge rejected Hill's evidence that he applied chemicals at wind speeds of "up to 15, possibly gusting to 20 kilometres per hour" and found that the wind speeds during spraying periods were as high as 23 to 35 kms per hour (Hopelands) and between 17 to 29 kms per hour (Alderton).

(b) The average release height of six metres used in the joint expert report was consistent with the evidence of Hill and Baker but the trial judge found that there was damage to trees which were estimated to be as tall as 18 metres and that the release height was or might have been "considerably higher" than six metres.

[36] Upon the trial judge's findings, the use of the AgDisp Model with appropriate parameters indicated that some herbicide might be deposited about 20 kilometres downwind from where the appellants sprayed it. Since that model had been in use in this industry for years (including by Hill), the evidence accepted by the trial judge in making that finding may be taken into account in determining whether the damage to the respondent's crops was foreseeable.

[37] The trial judge found that there was insufficient information to permit the use of the model to make a reliable estimate of the amount of chemical deposited and whether it caused the damage to the respondent's cotton crops.[69] The difficulty lay in the number and unpredictability of the relevant variables. Whilst it was predictable that some herbicide might be deposited, there seems to have been no reliable method of predicting whether or not a sufficient amount of herbicide would be deposited to cause significant damage. In circumstances in which it was predictable that some of the herbicide sprayed into the atmosphere would be deposited on crops known to be susceptible to damage if enough was deposited, the fact that the amount which might be deposited could not reliably be predicted itself suggests that the risk that enough would be deposited to cause crop damage should be regarded as having been reasonably foreseeable. The extent of the actual damage seems surprising in

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66 [2010] QSC 220 at [123].

67 [2010] QSC 220 at [124].

68 Evidence of Hill at 8-32.

69 [2010] QSC 220 at [125], [129], and [151].

light of the appellants' expert evidence, but the experts' opinions were based in part upon assumptions, including as to the height of the spraying and the strength of the wind, which were derived from evidence of Hill and Baker which the trial judge did not accept.

[38] I would hold that on the whole of the evidence, so far as it is consistent with the trial judge's findings of fact, the appropriate inference was that the appellants ought reasonably to have known that it was foreseeable, as a not insignificant risk, that herbicide they sprayed into the atmosphere would cause not insignificant damage and consequential loss of yield to the respondent's cotton crops. That conclusion requires the rejection of the appellants' arguments because the Act does not exclude the common law principle that damage was foreseeable if the kind of damage was foreseeable, even if the extent of damage was greater than expected.[70]

[39] The focus of the appellants' arguments was appropriately upon the question whether the criteria in ss 9(1)(a) and (b) were satisfied. The arguments were not insubstantial, but once it is concluded, as I would conclude, that those criteria were satisfied, there is no reason to doubt the trial judge's decision that the appellants breached their duty of care to the respondent. The breach question should be resolved against the appellants.

(c) The causation question

[40] The trial judge directed herself that the respondent bore the onus of proving that the appellants' breach of their duty of care caused the herbicide to drift to the respondent's property in a sufficient quantity to cause the alleged damage to the respondent's cotton crops and that the risk of such an injury actually came home.[71] The trial judge was satisfied that it was more probable than not that some of the chemicals sprayed by the appellants reached the respondent's cotton crops and that, although there was insufficient information to permit the use of the AgDisp model to make a reliable estimate of the amount of chemical deposited, the herbicide caused the damage to the respondent's cotton crops.[72]

[41] The appellants did not contend that the primary judge failed to bear in mind that the onus was upon the respondent to prove any facts relevant to the issue of causation,[73] or that the primary judge disregarded the requirement for a finding of causation that "the breach of duty was a necessary condition of the occurrence of the harm",[74] or that the finding in the respondent's favour was affected by any other error of principle. Rather, the appellants submitted that the respondent failed to prove causation because each of the experts who gave evidence on this issue acknowledged both that it was not practicable to quantify the amount of herbicide that reached the respondent's crops and that, below a certain quantity, it would not damage those crops. The appellants submitted that the trial judge must have reasoned *post hoc ergo propter hoc* (that is, that because the damage occurred after the chemicals were sprayed, the damage must have been caused by the spraying of the chemicals).

[42] For the reasons set out under the next heading, the appellants' further argument that there was a conflict between the trial judge's findings on liability and her findings

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70 See *Dovuro Pty Ltd v Wilkins* (2005) 215 CLR 317 at [60], and authorities cited at footnote 64.

71 [2010] QSC 220 at [30], [150].

72 [2010] QSC 220 at [125], [129], and [151].

73 *Civil Liability Act* 2003, s 12.

74 *Civil Liability Act* 2003, s 11(1)(a) ("factual causation").

on quantum should not be accepted. The appellants' arguments about causation should not be accepted for those and the following reasons, which substantially reflect the respondent's arguments.

[43] It was not contentious that a certain minimum quantity of herbicide was necessary before it would damage cotton crops in the way that the respondent's cotton crops were damaged. It is also clear that the evidence did not justify a finding about the precise quantity of herbicides deposited upon the respondent's cotton crop. As was submitted for the respondent, however, it is not the law that the absence of scientific proof of a causal relationship precludes a finding that it was more probable than not that the appellants' spraying operation caused the damage.[75]

[44] The evidence in the experts' joint report was that spray drift of about 20 kilometres was possible. In addition to that evidence and the findings summarised in [14] of these reasons, the evidence justified the trial judge's findings that:

(a) There was a trail of damage, which was consistent with the application of the herbicide sprayed by the appellants, on the northern side of the trees between the area where the herbicide was sprayed and the respondent's cotton crops.[76]

(b) Properties between where the appellants sprayed the herbicide and the respondent's cotton crops were affected by the drifting herbicide.[77]

(c) The respondent's cotton crops at Elgin and Noonameena were in fact damaged by herbicide.[78]

(d) Those damaged cotton crops exhibited symptoms which were typical of exposure to Metsulfuron and Grazon, which were in the herbicide sprayed by the appellants.[79]

(e) No potential cause of the damage to the respondent's cotton crops could be identified other than the appellants' spraying of the herbicide at Sherwood and Wallumba.[80]

[45] In relation to the last finding, the respondent submitted that, whilst the onus of proof remained upon the respondent throughout, the absence of any answer by the appellants which might displace the inference of causation raised by the other facts justified the trial judge in deciding the issue in the respondent's favour.[81] I accept the submission. The facts in (a) – (e) permitted a finding of causation in favour of the respondent "unless and until some further or other state of fact is made to appear by evidence."[82] The trial judge found that the alternative explanation alleged by the appellants was not established, with the result that the respondent proved that the crop damage was caused by the appellants' negligent acts. The experts' inability to make a reliable determination of the quantity of the herbicides which reached the cotton crops does not supply any ground for overturning that finding. The evidence amply justified the trial judge's conclusion that the herbicides drifted to and caused the damage to the respondent's cotton crops.

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75 See *Amaca Pty Ltd v Ellis* (2010) 240 CLR 111 at 137 [70].

76 [2010] QSC 220 at [149](x).

77 [2010] QSC 220 at [8], [15], [39], [149(xi)].

78 [2010] QSC 220 at [149](xviii).

79 [2010] QSC 220 at [149](xix)]-(xx).

80 [2010] QSC 220 at [149](xxi).

81 *Colbran t/a Tablelands Coffee v State of Queensland* [2008] QCA 418 at [223], citing *Henderson v Jenkins* [1970] AC 282 at 301.

82 *Watts v Rake* (1960) 108 CLR 158 at 160.

(d) The quantum question

[46] The trial judge accepted the evidence of an expert called by the respondent, Bullen, as to the losses of cotton yield resulting from the herbicide spray damage and assessed the total loss at $467,187.45.[83] In the July 2011 reasons, the trial judge reduced that figure to $461,237.23 to make it accord with the lower figure claimed in the respondent's amended statement of claim. The trial judge then deducted from the lower figure the amount of money the respondent had received from defendants who had settled, resulting in a principal sum of $361,237.23. The addition of interest produced the judgment sum of $559,540.38.

[47] Bullen's methodology, which the trial judge accepted was reasonable, involved reference to a third property ("Cullingral") farmed by the respondent some 32 kilometres north of Noonameena and Elgin. The trial judge's following summary of the evidence of the respondent's manager, Geldard, provides a succinct overview of the relevant factual background:

> "[10] The properties at Elgin, Noonameena and Cullingral are divided into various fields. The relative yields as between the properties in the 2003/2004 and 2004/2005 years were similar. The plaintiff argues that because of the historical similarity, the yields on Noonameena and Elgin in 2006 should have been the same as those on Cullingral in that year. The cotton crop on Cullingral, which was to the north-east of the properties sprayed, had no yield loss in the 2005/2006 year. The plaintiff's argument is therefore that Cullingral exemplifies the yield which should have occurred in the two affected properties.
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> [11] Geldard explained that historically, the plaintiff had farmed those properties in the various cropping rotations outlined above, in a 17 metre strip cropping management system. In May 2005 however, all of the cotton country was converted to a broad acre management system. This system involves the planting of two rows of cotton, one metre apart with a total of five metres 'skip' in-between alternative rows of cotton.
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> [12] Geldard outlined that this configuration was to better utilise available soil stored moisture and in-crop rainfall. Whilst there was a difference in rainfall, Geldard explained that the yields very closely reflected what they would expect to see from the rainfall and the known amounts of soil moisture stored in the soil prior to the crop.
>
> [13] Geldard indicated that the cotton crops on these properties are not irrigated and dry farming methods are used. Moisture retention is therefore a vital component of the methods used. He indicated that the soil in all the fields was similar. Soil moisture comparisons were also carried out, which indicated that the crops at Noonameena and Elgin had root damage and were therefore not able to utilise the

[83] [2010] QSC 220 at [171].

> moisture that was available in the soil compared to the Cullingral crop, which had utilised the available moisture."[84]

[48] Bullen compared the yield at Cullingral, which was unaffected by the herbicide sprayed by the appellants, with the yield affected by the herbicide at Noonameena and Elgin. His analysis indicated that, whilst the yields for all three properties were similar in 2004 and 2005, in 2006 the yields at Noonameena and Elgin were far lower than the yield at Cullingral. In addition, the respondent incurred extra production costs because the differential growth rates amongst the crops led to an extended harvest period. The trial judge accepted Bullen's analysis in his supplementary report of 30 July 2009 (exhibit 4). In that supplementary report, Bullen explained (in 21.4) that on a "whole farm average which is applicable given historical performance of the properties" the undamaged crops at Cullingral yielded 1.91 bales per hectare whereas the herbicide damaged crops at Noonameena and Elgin yielded .967 bales per hectare, resulting in an assessed production loss of .943 bales per hectare. Applying the number of hectares at Noonameena and Elgin and the achievable price per bale, that resulted in an assessed production loss of $480,692.20, which was about $20,000 more than Bullen's initial quantification of $461,237.28 (which made allowances for fallow length and varietal differences amongst the properties). Bullen expressed the opinion that the disparity between the average yields at Noonameena and Elgin and those at Cullingral in 2006 could only be attributed to spray drift damage from the 15 December 2005 event: there was no other plausible explanation. He referred also to predicted yields based upon modelling for Noonameena and Elgin compared to potential yields, and to the close correlation between the actual yield at Cullingral and the yield at Cullingral predicted by the model. Bullen concluded that the actual yield at Cullingral should have been achieved at Noonameena and Elgin in 2006 (paragraphs 21.7 – 21.10).

[49] The trial judge accepted that: there was a "huge disparity in the actual yields predicted by the APSIM model for Noonameena and Elgin compared to potential yields"; the potential yield at Cullingral predicted by the model was close to (in fact higher than) the actual yield obtained at Cullingral; Noonameena and Elgin had similar soil nutrition but slightly better soil moisture content than Cullingral, but Cullingral was an appropriate comparable property, being managed in the same way and with similar soils and variability; there was a loss of .943 bales per hectare at Noonameena and Elgin compared with Cullingral, and the difference could be attributed to the fact that Cullingral did not suffer spray drift damage.[85]

[50] The appellants' main criticism of Bullen's methodology was that his field by field yield assessment was inconsistent with statements in his different report on liability about the pattern of damage sustained in the cotton crops. The appellants focused in particular upon what was submitted to be an inconsistency between:

(a) Bullen's opinion in his 10 July 2007 liability report that the worst damage was in the Elgin 3 field and the least damage was in Noonameena 5 field; and

(b) Bullen's opinion in his 20 March 2007 quantum report that in 2006 Elgin 3 achieved the highest yield and Noonameena 5 achieved the least yield.

[51] The appellants emphasised the contrast between maps 22 and 23 in Bullen's 10 July 2007 liability report on the one hand and the yield loss assessment table 4 and

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84 [2010] QSC 220 at [10] – [13].

85 [2010] QSC 220 at [164] – [167].

quantification of loss table 5 in Bullen's 20 March 2007 quantum report on the other hand. Maps 22 and 23 diagrammatically expressed the "Average crop phytotoxicity ratings" for Noonameena and Elgin, which were based upon Bullen's observations and only two residue samples taken from the northern most point of Elgin (the northern most of the affected fields). Bullen's observations were made on 6 and 14 February and 14 and 15 March 2006 (between about 49 and 86 days after symptoms were first noticed). Bullen described a "pattern of damage … such that the highest levels of damage were incurred in Elgin 3 followed by Elgin 1 and Noonameena 2, then Noonameena 4 and then the balance of Noonameena fields" (6.3.4.1). Map 23 indicates that the highest average phytotoxicity ratings were in the middle (northern) part of Elgin 2 (Elgin being the northernmost property) and the lowest average phytotoxicity ratings were in Noonameena 5 (the southernmost of the five Noonameena fields). Bullen concluded that these results, taken with others and relevant gaps in the timber to the north, was "indicative of herbicide spraydrift damage emanating from a north/north-easterly direction from the properties Sherwood and W[a]llumba" (6.3.44). The appellants submitted that, consistently with those figures, one would expect to see the highest yield loss in Elgin 3, followed by Elgin 1, Noonameena 2, Noonameena 4, and the balance of the Noonameena fields; yet the yield loss assessment table 4 in the March 2007 quantum report demonstrates that Elgin 3 sustained the least assessed lint loss (.58 bales/hectare compared to the assessed potential yield of 1.91 bales/ha) and Noonameena 5 sustained the highest yield loss (.93 bales/ha against a potential yield of 1.88 bales/ha).

[52] That point was made by an expert called by the appellants, Tremain. He expressed the opinion that there should be "a strong relationship between the phytotoxicity score and relative yield", but that Bullen's reports show that there was virtually no relationship. (Tremain's 27 March 2009 report at 6.4) His evidence was not accepted by the trial judge. The trial judge noted[86] that Tremain expressed the opinion that the average yield at the worst affected field was almost identical to the least affected field, and concluded therefore that the yield reduction was due to factors other than chemical damage. The trial judge accepted Bullen's criticism that Tremain's analysis was based on comparing individual field yields whereas Bullen's quantification was based on comparing the Noonameena and Elgin farm average with the Cullingral farm average; Tremain also wrongly assumed that Elgin 3 was undamaged; and whilst on a visual inspection some fields appeared to be less damaged than others, the evidence in Bullen's report demonstrated that all fields in Noonameena and Elgin were damaged. Tremain conceded in his oral evidence both that there was damage in all fields at Noonameena and Elgin and that different subsoil moisture levels could have affected the yields.[87]

[53] The appellants pointed out that Bullen's evidence did not include a direct response to Tremain's opinion that there should have been a close correlation between the severity of the damage suffered and the loss of yield on a field by field basis. The appellants referred also to Map 1 in Bullen's supplementary report of 30 July 2009 (exhibit 4), which Bullen described (in 13.6) as having been prepared by Geldard and showing areas of severe, moderate and slight damage as he visualised it early in the season following the spray drift damage. The map indicates no or little damage at Noonameena 5 and severe damage at Elgin 3. That was submitted to be

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86 [2010] QSC 220 at [160].

87 [2010] QSC 220 at [161]-[163].

consistent with the appellants' thesis. The appellants referred to Bullen's oral evidence that the worst area of damage he observed was in Elgin 3, followed by Elgin 1 and Noonameena 2, and that he could not find evidence of damage in the rear south eastern corner of Noonameena.

[54] The respondent argued that the apparent inconsistency between observed damage and yield loss upon which the appellants relied was explained in Bullen's oral evidence. In evidence-in-chief Bullen said that his phytotoxicity results revealed that there was damage in all of the Noonameena and Elgin fields and that his tabled results showing areas in Noonameena with little or no damage could be explained by the fact that he produced his crop phytotoxicity ratings about two months after the application of the herbicides. When he first looked at the crops on 6 February 2006 damage was very evident but photographs he then saw showed that damage levels were significantly worse at earlier times. Bullen considered that the Metsulfuron had "expressed itself highly" long before he viewed the crops, so that his "damage ratings were not a reflection of the worst damage levels", but rather a reflection of what he saw at a later time.[88] Bullen referred also to the fact that there was a "variability of rainfall in all areas", even though, on an average basis, the yields between Noonameena and Elgin and Cullingral were "fairly comparable".[89] Bullen explained that the rainfall was variable but "similarly variable" (that is, of similar variability at Cullingral as at Noonameena and Elgin), and it was because of the variability that he used average yields.[90] Furthermore, Bullen gave evidence that there was no necessary correlation between visual symptoms of a Metsulfuron product and yield because the roots of cotton can be "inhibited" without visual symptoms. Bullen referred to the fact that the damage appeared lighter in the Noonameena fields and heavier in the Elgin fields and said that it "…is my experience that you can get a significant yield reduction in cotton without visual symptoms of metsulfuron product".[91] He went on to refer to an example of this phenomenon which he observed when he was a project officer managing re-cropping studies. Metsulfuron had been applied to soil and crops planted at various intervals and visual symptoms were found in the crops planted in close intervals but yield reductions were also obtained when the crops appeared to be okay.

[55] The appellants replied that in Bullen's 20 March 2007 quantum report he observed that there was a similar history and rainfall at all three properties (5.4.6), that there was a similar "[a]verage incrop rainfall received for all fields…" (Bullen 10 July 2007 report 6.11.4.4), and Bullen stated in his 30 July 2009 supplementary report (exhibit 4) that the loss was quantified upon an "assumption of similar variability of rainfall between fields" (21.2). The appellants referred also to the evidence of Mr Geldard that there was a very similar rainfall variability in all three properties. The appellants noted that Bullen gave evidence that there was some variability between rainfall gauges in the properties but in the relevant season there was "comparability in terms of the variability" and that at each of Cullingral, Noonameena, and Elgin "one end of the farm received higher rain than the other end of the farm", so that there was "the similar variability between the two properties" (2005/2006).[92] The appellants referred also to the cross-examination of Tremain in which he denied that subsoil moisture levels could not explain why areas of very

88 Transcript 2-69.
89 Transcript 2-67, 2-68.
90 Transcript 3-30.
91 Transcript 3-31.
92 Transcript 3-26, 3-27.

low phytotoxicity measured by Bullen coincided with areas where Bullen claimed that there were large reductions in the yield. Tremain agreed that differences in subsoil moisture levels could affect yield, but said that there was not enough difference between those levels on the different fields and not enough difference in rainfall across the various fields to explain the difference.

[56] Despite the careful and persuasive terms in which the appellants' argument was advanced, it does not justify interference with the trial judge's findings. Bullen was an agricultural loss assessor with a degree in agricultural science who had been conducting assessments of agricultural losses for some 30 years. The trial judge persuasively explained why she accepted Bullen's evidence in preference to the experts called by the appellants.[93] As was submitted for the respondent, Table 4 in Bullen's 20 March 2007 quantum report indicates that the crop varieties and the yield in each of the different properties varied from field to field even when unaffected by herbicide. Yield was affected by matters such as crop variety, farrow width between the lines of cotton (which had an effect on the moisture retained under the soil), and rainfall variations amongst fields. The yield loss figures upon which the appellants' submission was based were calculated by taking the actual yield from the potential yield, and the potential yield was a figure calculated by taking the average yield for Cullingral and making adjustments to it to take into account varietal difference, field history, and agronomic management. Bearing that in mind, a field by field analysis was not necessarily appropriate in light of other evidence given by Bullen and Geldard. After the herbicide spraying, Geldard for the first time observed that in fields that had been given long periods of fallow the yields did not differ from fields which had been given very short periods of fallow. Geldard gave evidence that at Cullingral differences in the fallow periods and rainfall were reflected in yield differences after the spraying event, but that did not occur in affected fields at Elgin and Noonameena. He also gave evidence that there was more rain in the crop at Elgin, and that whilst "…the whole crop behaved as if it was short fallow, because it got more rain it was a lot easier" and there was less impact of the herbicide upon its yield: "…that cotton did not need a fully-functioning root system as much as the cotton at Noonameena, where there was lot less rain and it was relying a lot more heavily on its roots to exploit the stored moisture."[94] When it is also borne in mind that the herbicide might inhibit plant growth by causing root damage which was not necessarily reflected in equivalent visible damage and that Bullen's visual observations did not necessarily reflect the extent of damage at earlier times, the apparent contradiction between Bullen's quantum report and his liability report may be reconciled. The appellants' challenge to the trial judge's assessment of the loss should be rejected.

(e) The proportionate liability question

[57] In the March 2011 reasons, the trial judge held,[95] that the respondent's claim against each appellant was unaffected by the proportionate liability provision in s 31 of the Act. The relevant sections provide:

> **"30 Who is a concurrent wrongdoer**
>
> (1) A concurrent wrongdoer, in relation to a claim, is a person who is 1 of 2 or more persons whose acts or

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93 [2010] QSC 220 at [38], [39], [40], [60], [72] – [75], [166], [168].

94 Transcript 1-24.

95 [2011] QSC 33 at [102].

omissions caused, independently of each other, the loss or damage that is the subject of the claim.

(2) For this part, it does not matter that a concurrent wrongdoer is insolvent, is being wound up, has ceased to exist or has died.

31 Proportionate liability for apportionable claims

(1) In any proceeding involving an apportionable claim—

(a) the liability of a defendant who is a concurrent wrongdoer in relation to the claim is limited to an amount reflecting that proportion of the loss or damage claimed that the court considers just and equitable having regard to the extent of the defendant's responsibility for the loss or damage; and

(b) judgment must not be given against the defendant for more than that amount in relation to the claim.

(2) If the proceeding involves both an apportionable claim and a claim that is not an apportionable claim—

(a) liability for the apportionable claim, to the extent it involves concurrent wrongdoers, is to be decided in accordance with this part; and

(b) liability for the other claim, and the apportionable claim to the extent it is not provided for under paragraph (a), is to be decided in accordance with the legal rules, if any, that, apart from this part, are relevant.

(3) In apportioning responsibility between defendants in a proceeding the court may have regard to the comparative responsibility of any concurrent wrongdoer who is not a party to the proceeding.

(4) This section applies to a proceeding in relation to an apportionable claim whether or not all concurrent wrongdoers are parties to the proceeding."

[58] Section 31 limits the liability of a defendant only in a case in which the plaintiff is entitled to recover the same loss in an "apportionable claim" against the defendant and at least one other person. Section 28(1) provides that Pt 2 of Ch 2 applies to "…either or both of the following claims (**apportionable claim**)…" The following paragraph (a) includes as an "apportionable claim" a claim for economic loss or damage to property in an action for damages arising from a breach of duty of care. The respondent's claim was an apportionable claim of that kind. The trial judge held that the appellants' liability was not limited by s 31 because they had not satisfied their onus of proving that the former defendants were concurrent wrongdoers, or that Baker was a concurrent wrongdoer with either of the appellants, or that each appellant was a concurrent wrongdoer with the other appellant. The

appellants argued that the trial judge was wrong in holding that the onus was upon the appellants, or she was wrong in holding that the appellants had not satisfied their onus of proving that one or more of the former defendants, Baker and each of the appellants were concurrent wrongdoers.

[59] In relation to the onus point, the appellants argued that the plaintiff bears the onus of proving, not only all of the facts necessary for a determination that a defendant was negligent, but also the extent to which each defendant was negligent and caused or should be responsible for the plaintiff's loss. This was said to follow from the provision in s 12 of the Act that the onus was on the plaintiff to prove all facts relevant to causation and from the absence of any provision in Pt 2 of Ch 2 imposing the onus upon each defendant. The appellants argued that s 31 did not establish a defence but instead limited a plaintiff's entitlement to only that part of the plaintiff's loss which was caused by a particular defendant. Upon those bases, the appellants argued that the respondent failed to establish its claim against either appellant because the respondent did not adduce evidence which established the extent to which, if at all, the appellants were responsible for the respondent's loss. The appellants also argued that s 31 applied even where the defendant was the only person legally liable for an apportionable claim by the plaintiff. The essence of that argument was that the only criterion of the application of s 31 is that the defendant is a "concurrent wrongdoer", the definition of which in s 30 does not require that anyone other than the defendant is legally responsible for the plaintiff's loss or damage.

[60] As was submitted for the respondent, the authorities speak with one voice in favour of the trial judge's construction. Hammerschlag J concluded in *Ucak v Avante Developments Pty Ltd*[96] that under the similar provisions in the *Civil Liability Act* 2002 (NSW) a concurrent wrongdoer was one whose acts or omissions caused the claimed damage or loss and that a defendant who asserted that a person was a current wrongdoer must prove "…the existence of a particular person; …the occurrence of an act or omission by that particular person; and … a causal connection between that occurrence and the loss that is the subject of the claim."[97] In *Dartberg Pty Ltd v Wealth Care Financial Planning Pty Ltd*[98] Middleton J held that if a respondent relies upon the similar provisions of Pt IVAA of the *Wrongs Act* 1958 (Vic), the respondent bears the onus of pleading and proving the elements of the limitation of liability. Barrett J referred to that decision and adopted the same construction of the New South Wales legislation in *Reinhold v New South Wales Lotteries Corporation (No 2)*.[99] In *HSD Co Pty Ltd v Masur Financial Management Pty Ltd*[100] Rothman J adopted the same construction, referring to *Ucak v Avante Developments* and *Dartberg Pty Ltd v Wealth Care Finance Planning Pty Ltd* and expressing his agreement with the view expressed extrajudicially by McDougall J.[101]

[61] The same construction should be adopted in relation to the Act. There are textual differences between the Act and the similar legislation in New South Wales and Victoria, but the differences are not material to this issue. The trial judge's conclusion that "…it is for the sixth and eight defendants [the appellants] to prove

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96 [2007] NSWSC 367.
97 [2007] NSWSC 367 at [34], [35].
98 (2007) 164 FCR 450 at 458 [31].
99 [2008] NSWSC 187 at [32].
100 [2008] NSWSC 1279 at [14]-[18].
101 See "Proportionate Liability in Construction Litigation" (2006) 22 BCL 394.

that the damages should be reduced because there are concurrent wrongdoers who are liable to the plaintiff because their act or omission has caused the loss or damage"[102] reflects the text of s 31. That section applies only in a case in which the defendant "is a concurrent wrongdoer in relation to the claim"(s 31(1)(a)) and therefore, only where the defendant "is 1 of 2 or more persons whose acts or omissions caused, independently of each other, the loss or damage that is the subject of the claim" (s 30(1)).[103] It follows that proof that an act or omission of a person other than a defendant was an independent cause of the claimed loss or damage is necessary before any occasion arises to consider whether or how a defendant's liability should be limited under s 31. A plaintiff's cause of action is complete without any evidence that there is a concurrent wrongdoer; the plaintiff is entitled to recover its proved loss in full from a defendant who is proved to be legally liable for that loss. If a defendant wishes to achieve a different result, the onus must be on the defendant to prove the necessary facts. As McDougall J explained in the paper cited earlier,[104] that conclusion is also suggested by the circumstance identified by Professor McDonald in an earlier paper[105] that in some cases the defendant will be in a better position than the plaintiff to identify concurrent wrongdoers, and by Kirby P's observation in *Platt v Nutt*[106] that "…the general rule which obtains in our courts, namely that those who assert must prove". It is necessary to add only a reference to s 32, which was discussed in the parties' submissions. Subsection 32(1) imposes upon a claimant an obligation to claim against every person "the claimant has reasonable grounds to believe may be liable for the loss or damage". If a concurrent wrongdoer contends that the claimant has failed to comply with that obligation, the concurrent wrongdoer may apply under s 32(4) for orders the court considers just and equitable "on…apportionment of damages proven to have been claimable" and costs thrown away by the failure. These provisions are consistent with the trial judge's conclusion that the onus lay upon the appellants to prove the facts necessary for any application of the legislation.

[62] The appellants' additional argument that s 31 might apply where a defendant is the only person legally liable for an apportionable claim by the plaintiff does not take into account many textual indications to the contrary. Most obviously, the word "wrongdoer" in the term "concurrent wrongdoer" implies that the defendant and another person are legally responsible for the same loss or damage. Furthermore, s 11 of the Act treats causation as comprehending not only "factual causation" but also "scope of liability", yet the appellants' argument construes s 30(1) as though it requires reference only to "factual causation". It is also necessary to take into account the combined effect of the introductory words of s 31, which condition its application upon the existence of an "apportionable claim", and the composite expression in s 31(1)(a) "the liability of a defendant who is a concurrent wrongdoer in relation to the claim…". The relevant criterion is not that the defendant is a "concurrent wrongdoer"; the defendant must be a concurrent wrongdoer in relation to the plaintiff's apportionable claim. That suggests that the defendant and another person or persons are liable to the plaintiff for the apportionable claim. The

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102 [2011] QSC 33 at [60].

103 The respondent did not argue that any claim against the former defendants would not have been for the same loss or damage which was the subject of the respondent's claim against the appellants: cf *Mitchell Morgan Nominees Pty Ltd & Anor v Vella & Ors* [2011] NSWCA 390 at [36] – [44]. The High Court granted special leave to appeal against that decision: [2012] HCATrans 216.

104 (2006) 22 BCL 394, at 400.

105 "Proportionate Liability in Australia: The Devil in the Detail" (2005) 26 Aust Bar Review 29.

106 (1988) 12 NSWLR 231 at 238.

same conclusion is suggested by the references in ss 31(1)(a) and 31(3) to the defendant's and any concurrent wrongdoer's "responsibility" for the plaintiff's loss or damage. In analogous contexts, an apportionment of "responsibility" for loss or damage has been regarded as requiring reference, not only to the relative significance of each person's acts or omissions in causing the plaintiff's loss or damage, but also to a comparison of each person's "culpability, i.e. of the degree of departure from the standard of care of the reasonable man…".[107] Another reason for rejecting the appellants' construction is that it would produce the remarkable result that a defendant who was liable to a plaintiff could reduce the extent of the liability by proving that the plaintiff's loss was partly caused by an act or omission of a different person who did not breach any obligation to the plaintiff.

[63] Consistently with that conclusion, the appellants pleaded that their liability should be limited under s 31 and they pleaded facts upon which they relied in support of that contention. It is therefore necessary to consider the appellants' alternative argument that the evidence required the trial judge to limit the liability of each appellant under s 31. In that respect, the appellants placed most emphasis upon their argument that Baker and Hill were concurrent wrongdoers so that s 31 should have been applied to limit the liability of Hill. As between Hill and Meandarra, the appellants argued that the appropriate allocation of responsibility was three-quarters to Meandarra and one-eighth to Hill, with the remaining one-eighth allocated to Baker.

[64] The first point to be made about this contention is that, if an apportionment should be made only as between Hill and Baker, Meandarra would remain responsible for the whole claim. The appellants admitted in their pleadings that Meandarra "sprayed the herbicides … by using aircraft to distribute the herbicide".[108] So far as Baker is concerned, that admission appears to be explicable only on the footing that Meandarra was vicariously liable for Baker's liability to the respondent on the basis that Baker was an employee or agent acting within the scope of his employment or agency. Section 32I provides that nothing in the relevant part of the Act "prevents a person from being held vicariously liable for a proportion of any apportionable claim for which another person is liable …". It follows that Meandarra should be held vicariously liable for any proportion of the respondent's claim for which Baker was liable. The same analysis is applicable in relation to Hill. Because he was the managing director of Meandarra and apparently controlled its activities, it might be more accurate to say that Meandarra's liability for his conduct was direct rather than vicarious,[109] but Meandarra's and Hill's admission that Meandarra sprayed the herbicides was referrable to their preceding admission that Hill "was the servant and/or agent of the Sixth Defendant [Meandarra]".[110]

[65] In any case, Hill and Meandarra, and Baker and Meandarra, were not "concurrent wrongdoers" because it could not be said of either of Hill or Baker, in relation to Meandarra, that his acts or omissions caused the respondent's loss or damage "independently of each other". That was the basis upon which the trial judge rejected the appellants' contention that Hill and Meandarra were concurrent

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107 *Podrebersek v Australian Iron & Steel Pty Ltd* [1985] HCA 34, referring to *Pennington v Norris* (1956) 96 CLR 10 at 16.

108 Defence of the sixth and eighth defendants to amended statement of claim, paragraph 4 (AR2347), admitting the allegation in paragraph 4 of the amended statement of claim (AR2307).

109 See *Hamilton v Whitehead* (1988) 166 CLR 121 at 127 per Wilson and Toohey JJ.

110 Defence of the sixth and eighth defendants to amended statement of claim, paragraph 1(e) (AR2346), admitting amended statement of claim paragraph 1(j)(ii) (AR2307).

wrongdoers: the trial judge posed the rhetorical question, "[w]hat evidence is there that Hill, independently of the actions of [Meandarra], caused the loss or damage?".[111] As the trial judge observed, the answer was that, "[t]he liability of a negligent employee and a vicariously liable employer is 'joint' and not 'independent'."[112]

[66] As to the appellants' argument that the liability of Hill should be limited under s 31 on the ground that Baker was a concurrent wrongdoer with Hill, I accept the respondent's submission that the argument is not open on the pleadings. Obviously enough, the respondent might have conducted the trial differently if the appellants had pleaded that the liability of either appellant should be limited on the ground that Baker was a concurrent wrongdoer.

[67] It is necessary next to consider the appellants' argument that the trial judge was wrong in concluding that the evidence did not justify finding that any of the other (former) defendants were concurrent wrongdoers. In relation to the first to fifth defendants (the owners and the managers and operators of the properties sprayed by the appellants), the trial judge rejected the appellants' argument that they failed to ensure that reasonable care was taken in light of their knowledge of the warnings on the label for Metsulfuron which was to be sprayed by the appellants.[113] The trial judge found that the evidence did not support that inference; her findings did not include any findings about those (former) defendants' knowledge or responsibility about the mix he was spraying of the chemicals, and the admissions in their pleadings did not assist.[114] Although the appellants submitted that "there was material upon which an apportionment ought to have been made against the other defendants and Baker: the obvious involvement of those 'parties' ought not have been ignored",[115] they did not direct any challenge to the trial judge's rejection of the argument they had advanced in the Trial Division. We were not referred to any evidence which supported the inference, which the trial judge rejected, that the first to fifth defendants either saw or should have had regard to the warnings on the Metsulfuron label.

[68] Otherwise, the appellants' argument about the first to fifth defendants' liability was that it was they who sought to spray the land, the spraying was done on their behalf, they engaged the seventh defendant as their agricultural product supplier and adviser, they were advised by him not to proceed without a permit, notwithstanding that advice they instructed Hill to proceed, and some of them were present when the spraying was conducted. None of this suggests error in the trial judge's conclusion that it could not be inferred that any of the first to fifth defendants saw or ought to have had regard to the Metsulfuron label. Nor does it make up for the absence of any evidence concerning the knowledge or responsibility of the first to fifth defendants in relation to the mixing or spraying of the chemicals. As was submitted for the respondent, the appellants' argument invited speculation rather than findings justifiable by any evidence.

[69] In relation to the seventh defendant (the supplier of the herbicide), the argument put to the trial judge was that it was the seventh defendant's responsibility to supply and

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111 [2011] QSC 33 at [94].
112 [2011] QSC 33 at [96].
113 [2011] QSC 33 at [73].
114 [2011] QSC 33 at [74].
115 Appellants' amended outline of argument, paragraph 87.

advise about the combinations and strengths of the chemicals to be used for the landowners' agricultural purposes and it was the seventh defendant who devised the "recipe" to solve the particular problem which had been identified by the fifth defendant. The trial judge rejected the argument, pointing out that there was no evidence about what in fact occurred about the supply or mixing of the chemicals, and the evidence did not establish:

> "(i) which parties engaged the seventh defendant
> (ii) who the seventh defendant supplied the chemicals to
> (iii) who the seventh defendant advised in relation to the use of the chemicals
> (iv) the state of knowledge of each defendant about the concentration and mix of the chemicals or the need for a permit.
> (v) the knowledge and expertise of the first to fifth defendants.
> (vi) who was present at the fields on the day of the spraying.
> (vii) what was said by any of the first to fifth defendants on the day of the spraying."[116]

[70] The appellants contended that the seventh defendant "had the greatest 'causative potency' of any wrongdoer",[117] but the appellants did not identify any error in any aspect of the trial judge's analysis.

[71] The appellants advanced a more general argument that if, as the trial judge found, the appellants' duty was a non-delegable duty, the same rationale for that conclusion required a conclusion that the other defendants all owed a non-delegable duty. If so, a question might arise whether the relevant acts or omissions of the defendants caused the respondents loss "independently of each other". It is not necessary to pursue that question because the appellants' argument that their liability should be limited under s 31 fails for the more fundamental reason that they did not establish any of their pleaded defences that persons other than the appellants bore any legal responsibility for the respondent's loss.

Proposed orders

[72] The appeal should be dismissed with costs.

[73] **WHITE JA:** I have had the considerable advantage of reading the reasons for judgment of Fraser JA and agree with his Honour's reasons and the orders which he proposes.

[74] **MULLINS J:** I agree with Fraser JA.

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116 [2011] QSC 33 at [77].

117 Appellants' amended outline of argument, paragraph 92.