IN THE HIGH COURT OF NEW ZEALAND
AUCKLAND REGISTRY

CIV-2014-404-001730
[2017] NZHC 2140

BETWEEN	CLEMENT GILLIBRAND CATTELL DEANNA PHYLLIS CATTELL Plaintiffs
AND	AUCKLAND COUNCIL Defendant

Hearing: 14-17 and 23 August 2017

Appearances: D Bigio QC and A J Steel for plaintiffs
F Divich and K Perry for Defendant

Judgment: 5 September 2017

JUDGMENT OF LANG J

This judgment was delivered by me on 5 September 2017 at 3.30 pm, pursuant to Rule 11.5 of the High Court Rules.

Registrar/Deputy Registrar

Date……

INDEX

[1] Mr and Mrs Cattell are the owners of a residential property situated in Glenfield.[1] Sitting on the property and facing to the north are two adjoining units known as the east and west units respectively.

[2] The Auckland Council is the owner of a reserve known as the Downing Street Reserve (the reserve) that adjoins the northern boundary of the Cattells' property. In 1996 the Council's predecessor, the North Shore District Council, carried out earthworks to develop the reserve into a usable area including walkways for the public.[2] As part of those works the Council removed earth from a hill leading up to the Cattells' boundary in order to partially fill in a nearby gully. This created a steep sloping batter leading up to the northern boundary of the Cattells' property. Prior to the earthworks being carried out the slope leading up to their property had been of significantly lower gradient.

[3] In 2006 Mr Cattell became concerned when he discovered a significant crack in a concrete turning area he had constructed in 1997 on the northwestern part of his property close to the boundary with the reserve. He believed the damage had been created when the Council created the sloping batter on the northern boundary of his property. Mr Cattell then engaged in correspondence with the Council in an endeavour to persuade it to rectify the problem. His efforts were unsuccessful.

[4] Following a night of very heavy rainfall on 31 March 2008, Mr Cattell discovered that the crack in the turning area had widened significantly. This had resulted in a slab of the turning area close to the northern boundary separating from the turning area and sinking to a lower level. Shortly afterwards he observed that cracks had appeared in the garages of the two units, which are located on the ground level of the northern side of the units. Cracking was also observed in the joins between the concrete blocks and brickwork on both sides of the units. The footpath on the northwestern side of the west unit had also separated slightly from the garden adjoining the house, as had a concrete garden box at the eastern end of the east unit.

---

1 Mr and Mrs Cattell own the property in their capacity as trustees of the Deanna Phyllis Family Trust.

2 In this judgment I refer to both Councils as "the Council".

[5] Mr Cattell attributed these phenomena to continued instability in his land caused by the earthworks the Council had carried out in the reserve in 1996. His renewed efforts to have the Council address the problem again met with no success. He and his wife ultimately issued this proceeding in 2014 as a result.

The claims

[6] The Cattells sue the Council in both nuisance and negligence. The Cattells contend that the Council committed the nuisance of causing damage by removing lateral and subjacent support for their land when it created the sloping batter in the reserve in 1996. They seek a mandatory injunction requiring the Council to restore support for their property. They also seek damages in the sum that will be required to carry out the necessary repairs to their house and turning area.

[7] Mr and Mrs Cattell also say, and the Council accepts, that the Council owed them a duty of care as a neighbouring landowner to carry out works on the reserve with reasonable skill and care so that those works would not remove support to their land. They contend the Council breached this duty by failing to ensure that the works were carried out in such a way that they did not cause damage to the plaintiffs' land. The Cattells also contend that the Council breached a duty to abate a hazard on its land by failing to ensure that the instability of the slope was adequately addressed prior to 31 July 2008.

[8] The Council denies both causes of action. First, it contends that the damage to the Cattells' property was not caused by the earthworks carried out in the reserve in 1996. Rather, the Council says that the damage has been caused by a natural phenomenon known as ground creep. Ground creep occurs when land contracts and expands naturally on a seasonal basis. This occurs as the soil dries out during summer and autumn and then becomes saturated with water during spring and winter. Ground creep is particularly likely to occur in the vicinity of sloping land.

[9] Secondly, the Council advances the affirmative defences of limitation and contributory negligence. The Council contends that any damage to the Cattells' land occurred more than six years prior to the point at which the Cattells issued this

proceeding. As a result, the Council contends that both claims are statute-barred by virtue of the Limitation Act 1950.[3]

[10] Alternatively, the Council contends that the Cattells were contributorily negligent because of the manner in which they constructed the concrete turning area in 1997. The northern edge of the turning area is supported by a retaining wall constructed by the Cattells at that time. The retaining wall is very close to the northern boundary of the Cattells' property, and the slope leading down through the reserve is just four metres away from the wall. The Council alleges that the retaining wall is inadequate to support the overall weight of the turning area, particularly having regard to additional fill that was added to create an even surface for the turning area. The Council contends that, had the Cattells installed an effective retaining wall, the damage to the turning area would not have occurred.

1. The claim based in nuisance

General principles

[11] The general principles that apply to the tort of nuisance by removal of support are not in dispute. They are well established through English cases such as *Bonomi v Backhouse*[4] and *Darley Main Colliery Company v Mitchell*[5] along with New Zealand authorities such as *Byrne v Judd*,[6] *Taylor v Auto Supply Ltd*,[7] *Blewman v Wilkinson*[8] and *Brouwers v Street.*[9] In short, a landowner has a right to excavate his or her land even though such work carries a risk that damage might be caused to adjoining or subjoining land. The owners of neighbouring land correspondingly have a right to have their land "remain in its natural state unaffected by any act done in the adjoining or adjacent land".[10]

---

3 The defences contained in the Limitation Act 2010 do not apply in the present case because they apply only to claims based acts or omissions occurring after 31 December 2010: Limitation Act 2010, s 10. The act that forms the subject of the claims in this proceeding are the earthworks that the Council undertook to the reserve in 1996.

4 *Bonomi v Backhouse* (1861) 9 HL Cas 503 at 512.

5 *Darley Main Colliery Co v Mitchell* (1886) 11 AC 127 (HL).

6 *Byrne v Judd* (1908) 27 NZLR 1106 (CA).

7 *Taylor v Auto Trade Supply Ltd* [1972] NZLR 102 (SC).

8 *Blewman v Wilkinson* [1979] 2 NZLR 208 (CA).

9 *Brouwers v Street* [2010] NZCA 463, [2011] 1 NZLR 645.

10 At 108.

[12] No cause of action will arise in respect of the removal of lateral or subjacent support from neighbouring land until that land suffers actual damage. Where the removal of support causes neighbouring land to subside, each new subsidence will give rise to a fresh cause of action.[11]

[13] In *Blewman v Wilkinson*, Cooke J succinctly summarised these principles in the following way:[12]

> It has long been accepted that a landowner has a right to enjoy his own land in its natural state, unaffected by any act one by way of excavation on the adjacent or subjacent land. If and when an excavation which has interfered with the support of land by land causes damage by subsidence, the landowner for the time being has a right of action against the original excavator. Liability is strict in that negligence need not be proved.

[14] Where the damage occurs only in respect of structures sitting on top of the land, the tort of nuisance will not be proved. In that situation the landowner who suffers damage must sue in negligence and prove that the person who caused the damage is at fault.[13] Where, however, damage to structures sitting on the land is caused by the land subsiding, the cost of repairing those structures will be recoverable by the landowner as a consequential loss.[14]

Causation

[15] The issue of causation lies at the heart of the present case. As the Court of Appeal observed in *Brouwers v Street*, the law in this area is concerned with the causal relationship between the operative fact or event of removal of support, in this case the creation of the slope, and its consequence or effect of physical damage.[15] The tort of nuisance is committed when one property owner uses his or her land in a way that adversely affects the right of another to enjoy his or her own land. The basis for imposing strict liability is the act of removal of support, however that occurs, subject only to the qualification that the loss of support must arise from a

---

11 *Darley Main Colliery Company v Mitchell*, above n 5, at 133; *Crumbie v Wallsend Local Board* [1891] 1 QB 503 at 508 (CA).
12 *Blewman v Wilkinson*, above n 8, at 209.
13 *Brouwers v Street*, above n 9, at [86].
14 At [85].
15 At [69].

non-natural cause; if the loss arises from natural causes, no tort is committed.[16] In the present case, this requires the Cattells to establish that the subsidence of the turning area and the damage to the house occurred by virtue of the loss of support caused by the creation of the slope of the reserve and not from any natural cause.

[16] The case for the Cattells is that the slope in the reserve was at risk of becoming unstable in prolonged periods of wet weather, and that the steps taken by the Council to guard against this were ineffective. As a result, movement occurred during the night of 31 July 2008 and this led to the separation and subsidence of the slab on the northern part of the turning area. It also caused the cracking that can be observed in several locations on the exterior of the two units.

Were the measures taken by the Council to protect against instability of the slope in the reserve effective as at July 2008?

[17] Mr and Mrs Cattell contend that the land under the turning area subsided because the Council failed to take adequate steps to prevent the slope in the reserve from becoming unstable in periods of prolonged rainfall. This issue is probably more germane to the cause of action in negligence rather than nuisance but I propose to deal with it at this point because it is also relevant to the issue of causation. In order to understand the issue it is necessary to set out in greater detail the work that the Council carried out within the reserve, and the steps that it took to mitigate the risks that resulted from that work.

The events that occurred in 1996

[18] Construction of the sloping batter appears to have been completed in late 1995 or early 1996. The creation of the batter produced an area of flat land at the base of the batter that could be used to accommodate a paved walkway. The batter sloped at an angle of between 22 and 28 degrees up to the northern boundary of the Cattells' property. By way of contrast, the hillside that the Council removed had a gradient that varied between 9 and 11 degrees. The Council planted a stand of manuka trees on the face of the slope to assist in protecting the slope from erosion.

---

16 At [80].

[19] In February 1996 the Council's geotechnical engineers, Riley Consultants Ltd (Riley), undertook testing of compacted fill in the reserve. In a letter to the Council dated 11 March 1996 Riley described the work that had been carried out to create the batter and made the following recommendation:

> …
>
> Material to fill the gully was obtained by cutting a bench on the western half of the site. This has created a cut of 26°, approximately 7m high. On a recent site visit the cut was examined and found to contain a sandy silt layer near the bottom of the cut. Our experience of the general area around this site indicates that the stability of this cut slope should be addressed.
>
> We would therefore recommend that at least one borehole be drilled on the cut slope to investigate the stability on the slope and its possible effects on the houses above and determine whether any stabilising is required.

[20] On 20 March 1996 Riley drilled two boreholes in the slope just below the northern boundary to the Cattells' property. The subsequent analysis of samples from the boreholes showed that under high groundwater conditions the factor of safety in the cut slope could fall to the point where slope failure was likely. In a report dated 22 March 1996 Riley advised the Council that the slope was at risk of becoming unstable in high groundwater conditions. It said that groundwater would rise during the winter period to levels that could cause ground creep and instability of the slope. Riley recommended the installation of five counterfort drains at ten metre intervals leading from the top to the base of the slope. It provided the Council with a suggested profile and cross-section drawing depicting the manner in which the counterfort drains were to be constructed.

[21] Each counterfort drain was to consist of a 300mm wide trench leading from the top of the slope to a point approximately four metres past the base of the slope. The trench was to be a minimum of three metres deep at the top of the slope and 1.5 metres deep at the base. Each drain was to be filled with a suitable form of permeable material such as aggregate or scoria (sometimes referred to as SAP 7 or AP 7). This would allow water in the soil to seep or flow down to the bottom of the trench. Towards the bottom of each trench a perforated pipe would collect the water and carry it down to the base of the slope. Each vertical pipe was to be connected to a lateral outflow drain that would carry the water downhill to a nearby gully. The objective of this type of drainage system is to ensure that groundwater remains at

least two and a half metres below the surface of a slope. It was common ground between the experts that subsidence is most likely to occur when groundwater collects within approximately one and a half metres of the surface of a slope.

[22] On 10 April 1996 the Council's civil engineers, Airey Consultants Ltd, sent the Council a letter advising that the counterfort drains had been installed by a company called Fisher Civil Ltd. There is no other evidence regarding the installation of the counterfort drains.

[23] On 20 May 1996, Mr Cattell wrote to the Council pointing out that the angle of the slope on his northern boundary was considerably steeper than it had been previously, and that this was not supposed to have been the case. He asked the Council to provide him with an indemnity in respect of any damage that might occur from erosion or slippage in the reserve. The Council responded on 6 June 1996 by providing Mr Cattell with a copy of the report from Riley Consultants dated 22 March 1996. The Council also stated that it had "now carried out the recommendations [in the Riley report] in full". The Council also said that, combined with the proposed planting of trees on the slope, the Council was "happy in the knowledge that the batter stability is sound".

[24] The Council sought legal advice in relation to Mr Cattell's request for an indemnity. On the recommendation of its solicitors, the Council instructed Riley to return to the reserve and inspect the counterfort drains in September 1996. The inspection duly occurred on 17 September 1996. Riley's staff were unable to locate the lateral drainage outlet and reported to the Council as follows:

> Our site inspection on 17 September 1996 indicated the following:
>
> 1. Five counterfort drains were constructed at approximately 10m centres down the 26˚ batter slope at the southern boundary.
>
> 2. These counterfort drains were extended a minimum of 4m beyond the base of the batter slope and connected into an additional counterfort drain running west to east.
>
> 3. From the southwestern corner of the site, the west to east counterfort drain begins 12m to the east of a point 26m along the wire fence of the western boundary.

4. The outlet of the counterfort drain system was unable to be located on site.

We also contacted Peter Fisher of Fisher Construction and he confirmed the following:

1. The counterfort drains were constructed to the required depth as specified in our letter/report dated 22 March 1996 (our Ref: 96148-B).

2. Peter could not remember exactly where the counterfort drain outlet was located but said that he could send someone round to locate it if required.

Conclusions and Recommendations

It should be noted that Riley Consultants were not requested to and did not observe the construction of the counterfort drains. However, based on our site visit following construction of the counterfort drains and our conversation with Peter Fisher of Fisher Construction as outlined above, we consider that the counterfort drains have been constructed generally in accordance with our recommendations.

As such we consider that the counterfort drains will reduce the possibility of rising groundwater levels and hence the risk of instability or ground creep of the batter slope at the southern boundary.

We would however recommend that the outlet of the counterfort drain be located and regularly inspected to ensure it does not become closed up.

[25] This report prompted the Council to write to Mr Cattell on 15 November 1996 to advise him that the Council was not prepared to provide an indemnity. The letter also contained the following paragraph:

> The Council has been in consultation with Riley Consultants Engineers and Geologists throughout the implementation of the earthworks on the reserve. They recommended installing stabilising counterfort drainage works on the batter immediately adjacent to your property at 5 Mulberry Place. These works were carried out to their specification and we have now received confirmation from Rileys that the works were done to their satisfaction (attached). We have therefore taken all practical steps to ensure the stability of the land. The recommended maintenance work on the outlet is due to be carried out shortly. We have no reason to believe the land adjacent to your section is in any way unstable or would compromise the stability of your land.

[26] There is nothing in the evidence to suggest that the Council subsequently maintained or monitored the performance of the counterfort drains and outlet pipe between 1996 and 2006.

The events that occurred in 2006 and 2007

[27] Mr Cattell wrote to the Council on 13 March 2006 after he noticed a crack in the turning area of the driveway on the northern boundary of his property. He told the Council that the crack had increased in both length and width between February and March 2006.

[28] This advice prompted the Council to engage Riley again. On 30 March 2006 Riley's technicians drilled two boreholes in the slope below the northern boundary of the Cattells' property. In a report sent to the Council on 13 September 2006 Riley advised that the cause of the problem was a retaining wall the Cattells had constructed near the northern boundary of their property in 1997. Riley concluded it would have been prudent for the Cattells to design and construct a more robust wall "given the topography and subsurface conditions". It recommended that they should replace the existing retaining wall with "a new specifically designed retaining/pallisade type wall".

[29] Riley's advice prompted the Council to reject Mr Cattell's claim that the earthworks carried out in the reserve in 1996 had caused the cracking to the turning area. Further correspondence then ensued, with Mr Cattell ultimately advising the Council in December 2006 and February 2007 that he was issuing Court proceedings.

[30] On 15 June 2007, Riley sent a letter to the Council addressing issues Mr Cattell had raised with the Council in letters dated 4 December 2006 and 21 May 2007. A member of Riley's staff, Mr Allen Dunn, then went to the reserve on 20 July 2007 to locate the lateral drain outlet and check on its performance. His report to the Council dated 31 July 2007 records his findings as follows:

> An inspection was carried out on 20 July 2007. Following a site walkover and probing of the ground, the five existing counterfort drains were located on the embankment below the southern boundary of the reserve. The lateral connector drain from the drains was then followed to the outlet located within a swampy depression in the south-eastern corner of the reserve. The outlet is currently partially buried approximately 0.3m beneath the base of the tree fringed swamp area and adjacent to its western edge.

> Although the pipe is not visible due to its depth below the swamp surface, probing of the outlet confirmed the presence of a pipe, and excavation within the bank of the swamp area confirmed the presence of SAP 7 drainage metal. A visible channel and groundwater flow emanating from the pipe also corroborates its presence and also confirms the counterfort drains are working adequately.
>
> The fact that the embankment containing the counterfort drains is currently in a very dry and hard condition considering the large volume of recent rainfall, and that the surrounding slopes to the north and east are soft and very wet confirms the presence of the drainage system, and that they are functioning properly.

The Council sent a copy of Mr Riley's report to the Cattells on 13 August 2007.

[31] On 17 September 2007 Mr Dunn sent the Council an email in which he made the following suggestions relating to the future maintenance of the counterfort drains:

> Regarding the updating of the existing counterfort drains to allow maintenance to occur, and to place on the NSCC GIS system, we propose the following:
>
> 1. 5 counterfort drains – excavate upper ends to expose Novaflo pipe, fit PVC pipe over and bring to the ground surface with screw cap. Contain pipe within concrete plinth.
>
> 2. Existing PVC connector pipe to outlet – expose the upper end of the westernmost PVC pipe (lower end of counterfort drain). Install a PVC bend and extent to ground surface with screw top lid to allow for maintenance. Form concrete plinth to maintain in place.
>
> 3. Outlet – excavate around the outlet to ensure visible and clear of any debris, cut back if necessary and form a small (approximately 1m) concrete riprap zone downstream of the outlet, towards the swamp area.
>
> We request the outlet be exposed prior to any work being undertaken and a CCTV camera extended up the pipe to accurately position the upper end of the pipe. This may require some heavy digging as there are some large rocks placed next to/over the outlet, and battering of side slopes at the outlet may be required.

[32] Mr Dunn subsequently inspected the lateral outlet drain using a CCTV camera. His resulting email to the Council on 21 November 2007 reported as follows:

> An update on progress with these drains.

> Excavation at the top of the counterfort drains adjacent to the boundary with Mulberry Lane properties found the Novaflo pipes were not brought up to the surface. The end of the scoria filled trenches have been marked.
>
> The outlet was uncovered, and the CCTV camera sent up it.
>
> The pipe is a 160mm Novaflo so a large amount of roots had entered into, which proved impassable to the camera.
>
> The pipeline was then cleared of roots and the CCTV sent back up again. Only three of the five lateral counterfort connections were located.
>
> Following analysis of the video at our office the 2 other lateral connections were observed generally in their expected locations – hidden by root growth, ponding water and pipe damage.
>
> The lateral connections are at depths between 1.5m and 1.75m deep below ground level.
>
> I have contacted the surveyors regarding an as-built survey to NAS standards. They will do the survey work within the next week.
>
> We have to finish the outlet area to a suitable standard with concrete / rocks etc.
>
> With regard to providing access points to the counterfort drains at the lateral connections, both myself and Scott Vaughan feel it is unnecessary. The depth required to reach these points (up to 1.8m depth) will require extensive excavation and remedial work for little reward. The fact that 160 Novaflo pipes are in place, and a good drainage metal (AP 7) exists for the full height of the counterfort drains means the pipes should not need to be maintained providing the main pipeline from the outlet is regularly cleaned out.
>
> However, if you still want these maintenance points in place we will organise to get an excavator up on site next week.

[33] There is no evidence to suggest that the Council ever carried out any of the remedial or maintenance work suggested by Mr Dunn. Furthermore, a survey of the drains that was carried out in November 2007, probably at the time of the CCTV inspection, revealed that part of the lateral drain ran in an uphill direction. This meant that water from that portion of the pipe would be unable to flow down to the outlet in the swamp.

The argument for Mr and Mrs Cattell

[34] For the Cattells, Mr Bigio QC criticises the approach taken by the Council in relation to the counterfort drains on numerous grounds. He points out there is no evidence that the contractor the Council engaged to install the drains adhered to the

plan prepared by Riley, or that the materials used in the construction of the drains were those recommended by Riley. He also points out that Riley was not asked to supervise the construction process, and the Council has not been able to produce "as built" plans to show what the finished product looked like. As a result, he says the issue of whether the drains were fit for purpose remains a matter of speculation.

[35] Mr Bigio also submits that the pipes in the vertical counterfort drains ought to have been fitted with "flushing ports" so as to enable the Council to gain access to them for the purpose of removing any obstructions. Mr Dunn recommended that this be done in his email to the Council dated 17 September 2007.[17] He subsequently resiled from that recommendation in his email dated 21 November 2007 after discovering that the vertical pipes did not extend up from the bottom of the trench to ground level.

[36] Mr Dooley said that in 1996 the installation of flushing ports was "a typical inclusion in counterfort drain design and installation." Dr Toan and Mr Vaughan disagreed with that proposition, although Mr Vaughan said they would be an enhancement. In addition, Dr Toan said that the Council now requires "flushing eyes" to be installed in such works.

[37] Mr Bigio also submits that the Council ignored recommendations made by Riley in both 1996 and 2006. In addition, Riley told the Council about the poor condition of the lateral pipe in 2007 following the CCTV inspection and the Council failed to follow Riley's recommendations at that time. Mr Bigio points out that Riley's staff were unable to find the outlet in 1996. He also submits that the outlet is likely to have remained blocked until at least May 2009, when Mr Cattell took photographs of a digger excavating a large quantity of sludge from the area in the gully where the outlet pipe is located. As a result, Mr Bigio contends that the counterfort drains and outlet were most probably blocked and ineffective as at 31 July 2008.

---

[17] Set out at [31].

The arguments for the Council

[38] Ms Divich points out that borehole testing in March 2006 and July 2017 did not produce evidence of groundwater under the surface of the slope, and submits that this confirms that the counterfort drains have always operated satisfactorily. Ms Divich relied in this context on the evidence given by Mr Dooley, the geotechnical expert called for the Cattells, and also two experts called by the Council, Mr Vaughan and Dr Toan. Mr Vaughan is a geotechnical engineer and is currently Riley's managing director. Dr Toan is also an experienced geotechnical engineer. All three experts gave evidence about the borehole tests that were carried out on the slope between 1996 and 2017.

[39] Riley conducted borehole testing in March 1996, when it drilled two boreholes to a depth of approximately five metres into the slope. One of these encountered stabilised groundwater but the other was dry. Analysis of these results prompted Riley to warn the Council at that time about the risk of instability in the slope during prolonged periods of bad weather. This led to the proposal to install counterfort drains.

[40] On 30 March 2006 Riley conducted borehole testing after the Council received a further complaint from Mr Cattell. This involved drilling two bores to a depth of approximately five metres. One borehole was drilled at the top of the slope and the other was drilled towards the bottom. No groundwater was encountered in either borehole.

[41] Mr Dooley also conducted borehole testing in July 2017, when he drilled two boreholes near the top of the slope. One of these was one and a half metres deep whilst the other was approximately two metres deep. He did not encounter groundwater in either of these, even though he accepted it had been a wet winter. Mr Vaughan qualified his evidence on this point by saying that his testing was not carried out to determine the level of the groundwater. Had he wished to do this, he said he would have carried out his tests over a much lengthier period. This is because groundwater does not immediately fill a borehole. Rather, it seeps in gradually.

[42] Dr Toan accepted that this was correct, but said he would still have expected some water to have made its way into the boreholes immediately if the counterfort drains had ceased to function effectively. He agreed with Mr Vaughan, who said he would have expected groundwater to have been encountered approximately a metre below the surface of the slope if the counterfort drains had not been working properly.

Conclusion: Installation

[43] I do not accept Mr Bigio's submission that the Court is left to speculate about whether the counterfort drains were constructed in accordance with Riley's design. I consider it highly unlikely that any contractor would choose to ignore design plans provided for the express purpose of setting out the manner in which an important drainage structure was to be built. I cannot think of any logical reason why that would occur.

[44] Furthermore, this was not a complicated structure. It involved digging five trenches to specified depths from the top of the slope to connect with a lateral trench leading down to the outlet in the swamp. Aggregate or scoria was then placed on the bottom of each trench, and a 160 mm Novaflo (perforated) pipe was laid on top of this. The vertical pipes were then connected with the lateral pipe. The trench was then filled in using the same aggregate or scoria. The fact that the trenches were filled with appropriate permeable material is confirmed by the drainage metal that Riley staff found in the area of the outlet on 20 July 2007. It is difficult to see why any contractor would seek to take short cuts or deviate from plans relating to such a straightforward construction project.

[45] I conclude on the balance of probabilities that the contractor engaged by the Council constructed the counterfort drains in accordance with Riley's design drawings. It follows that I am satisfied that the counterfort drains were fit for purpose when they were installed.

[46] Furthermore, having regard to the equivocal nature of the evidence on the point, I am not prepared to find that the design or installation of the counterfort drains was flawed by the failure to include flushing ports. Having said that, the

installation of flushing ports would subsequently have been of great benefit given the Council's decision to plant manuka trees on the slope in the reserve.

Conclusion: Monitoring and maintenance of the pipes

[47] The next issue is whether the failure by the Council to monitor and/or maintain the pipes and outlet is likely to have compromised the effectiveness of the system.

[48] There is little doubt that the Council appears to have adopted a relatively cavalier approach to these issues. In particular, Mr Dunn told the Council in his reporting email dated 21 November 2007 that the connections between the vertical pipes and the lateral pipe were significantly obstructed by roots, ponding water and pieces of broken pipe when he first attempted to use its CCTV camera to inspect the lateral pipe. Furthermore, Mr Dunn told the Council in the same email that it would need to ensure the lateral drain was regularly cleaned if it did not install an access point to the top end of each vertical drain. Notwithstanding Riley's report, the Council appears to have done nothing thereafter to ensure that both the lateral pipe and the trenches leading up the slope were working as they should have done.

[49] I accept, however, that the extent to which lack of maintenance may have compromised the effectiveness of the drainage system must be considered having regard to the nature of the system as a whole. In particular, it needs to be remembered that the Novaflo pipes comprised just one aspect of the structure, and it may not have been an integral part of the system.

[50] In particular, the use of perforated pipes demonstrates that the pipes were not intended to be the sole means by which water was to be removed from the slope. The purpose of such a pipe is obviously to carry away water that flows within the pipe, probably at peak times of water flow. The fact that a pipe is perforated means, however, that water can flow both into and out of the pipe. The fact that water can drain out of the pipe means that the trench as a whole is an important part of the drainage system. The system is therefore designed to carry water away from the slope and down to the outlet using both the pipes and the trench.

[51] Furthermore, I accept that it would take very significant water flow for the trenches become ineffective because they are filled with permeable material.

[52] For this reason the fact that the pipes may have been obstructed by roots and other material does not necessarily mean that the effectiveness of the system as a whole was significantly reduced. Water would still have been able to flow down the trenches to the outlet. I accept, however, that at times of peak water flow the effectiveness of the system would have been compromised to a certain extent by the fact that both the lateral pipe and the vertical pipes were likely to have been partially blocked by tree roots and other material. This is likely to be particularly so in relation to the vertical pipes because they pass through the stand of manuka trees the Council has planted on the slope. By contrast, the lateral trench sits under a grassed area in which no trees have been planted. If the connections between the vertical pipes and lateral pipes were obscured by tree roots in 2007 it is even more likely that the vertical pipes were affected to an even greater extent.

Conclusion: Monitoring and maintenance of the outlet

[53] The outlet was not visible when Mr Dunn inspected the site on 20 July 2007 because it was found to be situated .3 of a metre below the surface of the swamp. Mr Dunn subsequently recommended in his email to the Council on 17 September 2007 that the area around the outlet pipe should be excavated and cleared of debris. He also recommended that a concrete "riprap zone" be placed downstream of the outlet.

[54] Mr Dunn obviously cleared the outlet sufficiently on 21 November 2007 to enable the CCTV camera to be sent up the lateral pipe. In his report of that date he observed that "we have to finish the outlet area to a suitable standard with concrete/rocks etc". Thereafter, however, there is no evidence that the Council implemented any of Mr Dunn's recommendations.

[55] It is therefore likely that the outlet was again allowed to become covered by the swamp after November 2007. Mr Cattell maintains it remained in that state until May 2009, when he took photographs of a digger removing large quantities of sludge from the swamp area in the vicinity of the outlet. For reasons unknown the Council

has not been able to locate records to identify the work it was carrying out in the swamp at that time. In the absence of evidence to the contrary I accept Mr Cattell's evidence that the work done at this time included exposure of the outlet. It follows that in all likelihood the outlet remained below the surface of the swamp in July 2008 when Mr Cattell noticed the damage to his turning area.

[56] The fact that the outlet was buried beneath the surface of the swamp is also likely to have reduced the effectiveness of the system in July 2008. This is implicit from the fact that Riley recommended that the outlet be located and kept free of obstructions. However, the fact that water is carried to the outlet by the lateral trench, and not the lateral pipe alone, means that partial obstruction of the outlet would probably not be a matter of concern in normal groundwater conditions. This is the point Mr Vaughan was endeavouring to make during the following exchange in cross-examination by Mr Bigio:

> Q. And the reason for that is if it [the outlet] were closed up, it would affect the integrity of the system, wouldn't it?
>
> A. It would limit the flow out of the drainage system.
>
> Q. Or block it altogether?
>
> A. Well as I said, the drainage metal around the pipe also provides a path for the water that seeps into the drain to flow out.
>
> Q. But it is a critical part of the design, isn't it, that the outlet drain carry the water which flows to the toe of the slope well away from the slope. Would you agree with that?
>
> A It is important the collector drain as a whole does that, yes.

[57] I accept, however, that at times of very heavy rainfall any obstruction of the outlet would eventually cause water to pond in the pipe when it reached the outlet. If ponding occurred for a prolonged period, the water would eventually flow back up the lateral trench. Before this could impact on the stability of the slope, however, the water in the lateral trench would need to reach sufficient volume to be forced back up the vertical trenches. Only then would the soil in the metre or so below the surface become saturated so as to render the slope prone to instability.

Overall conclusion

[58] I accept that care must be taken in relation to Riley's borehole test results from March 2006 because that testing occurred at the end of the summer when the water table was likely to be naturally low. The absence of groundwater in the boreholes drilled by Mr Dooley in July 2017 is, however, significant because his testing was carried out in the middle of a very wet winter.

[59] As Ms Divich pointed out in her closing submissions, there is no direct evidence that the counterfort drains have ceased to work effectively. That issue can only be determined as a matter of inference having regard to all the evidence.

[60] When the drainage structure is viewed as a whole, I consider it generally provided an effective means of ensuring that water was removed from the slope. I also accept, however, that by July 2008 the performance of the system was compromised during prolonged periods of heavy rainfall by the likelihood that the lateral and vertical pipes were at least partially obstructed by tree roots and other material. This would have been further exacerbated by the probability that the outlet was located below the surface of the swamp.

Was the damage to the house caused by instability in the slope?

[61] As I have already recorded, Mr Cattell says he first noticed cracking in and around the house following the heavy rain that fell on the night of 31 July 2008. Cracking is now apparent in the joins of brickwork and blockwork on both the northern side and southern sides of the house. There is also cracking in the concrete floor of both garages, and fine cracking to the rear wall of the eastern garage. In addition, a planter box on the southeastern end of the house has moved away from the block wall of the house, and the footpath has separated from the garden wall on the northwestern corner of the house. There is also some minor cracking visible in the concrete steps and basement walls of the east unit and in some disused steps enclosed within a basement area.

[62] The likelihood that instability of the slope in the reserve caused these forms of damage is obviously immediately reduced by the fact that the house sits some

distance away from the northern boundary of the property. More importantly, the damage is not restricted to the northern side of the property. Cracking that runs in a southerly direction is also present in the joins of the brickwork and blockwork on the southern side of the house. Furthermore, the southern side of the house is on a slope running towards the south. I consider this confirms the likelihood that all the damage to the house has been caused, as Dr Toan says, by seasonal ground movement and not instability within the slope in the reserve. Dr Toan also considers that extensions to the eastern end of the east unit that were carried out in 1997 could be expected to settle naturally relative to the older part of the building. I did not take either of the experts called for the defence to disagree with this conclusion.

[63] Mr Hutton, a structural engineer called for the Cattells, said that the cracking in the brickwork and blockwork on both the northern and southern sides of the house suggests general movement of the ground towards the east. He also said that cracking in the garage floor slab was particularly noticeable in the northeastern corner. He said this suggests that localised settlement of the slab may have occurred. He considered that the movement of the house appeared to be progressive, and that it had occurred over an extended period of time.

[64] Mr Dooley acknowledged in cross-examination that the cracking to the house indicated movement in an easterly direction. He also agreed that the separation of the northwestern garden edge from the driveway and the separation of the southeastern garden edge from the blockwork at that corner of the house could both have been caused by a "shrink swell situation". He described this damage as being minor, and said that it had probably occurred through seasonal wetting and drying of the soil on the western and eastern slopes of the property respectively. He pointed out that a retaining wall has been built on the eastern slope, and this would be likely to prevent ground creep from occurring in that direction.

[65] Mr Dooley described the cracking in the garage floors as being "random", and not running parallel to any particular slope. When asked whether he associated the damage to the garage floors with the damage to the concrete slab in the turning area, he said that it "was a bit remote". I took this to mean he did not consider the two forms of damage had a causative link.

[66] When I asked Mr Dooley whether he associated the damage to the brickwork and blockwork of the house with the problem in relation to the turning area, he said:

> A. We thought that it might be related in the fact that if you are dropping the groundwater, if you're trying to lower the groundwater to maintain stability; once you lower the groundwater beneath the structure, you can induce settlement. That's a cause. It could also be ground shrinkage as well.
>
> Q. But that's a different issue to what's caused the parking slab, isn't it, if it can call it that?
>
> A. Yes, Your Honour.

[67] All of the evidence therefore points to the conclusion that the damage to the house has not been caused by instability of the slope in the reserve. Rather, it has been caused by seasonal wetting and drying together with gradual settlement of the eastern end of the house. It follows that the Cattells cannot succeed under either cause of action in relation to the damage to the house.

Was the damage to the turning area caused by instability in the slope?

[68] Several factors militate against the Cattells' argument that the damage to the turning area was caused by instability in the slope in the reserve. The first is my finding that the counterfort drains were still generally effective in July 2008. Another is the absence of evidence to suggest that any other areas of the Cattells' property have been damaged by subsidence caused by instability in the slope. Furthermore, the cracking has occurred to the house through what I have determined to be natural causes.

[69] In addition, there is no evidence within the reserve of any major subsidence of the slope. In particular, I accept Dr Toan's evidence that in July 2017 he was unable to see any evidence of a phenomenon known as "toe heave" at the base of the slope. Toe heave occurs when subsidence causes material from further up a slope to slide towards the base, thereby creating a bulge at the base of the slope. To the untrained eye there was certainly no toe heave evident at the base of the slope when I visited the site with counsel on the first day of the trial.

[70] The experts who gave evidence devoted considerable attention to calculations they had carried out to determine the factor of safety (FOS) in the reserve land below the Cattells' property both before and after the works that the Council undertook in 1996. The calculations take into account a combination of factors and assist geotechnical engineers to provide advice as to whether a slope is at risk of instability in specified conditions. Generally speaking, the experts agreed that an FOS of 1.5 for a slope was acceptable, whereas an FOS of 1.0 suggested that the slope was at risk of imminent failure. They also agreed that any rise in the level of groundwater in a slope will decrease the FOS, thereby increasing the likelihood of slope failure.

[71] Mr Dooley said that if groundwater was permitted to rise to within .8 of a metre below the surface of the slope in the reserve, the FOS of the slope would reduce to between 1.0 and 1.28. Dr Toan's analysis assuming the same groundwater level produced an FOS of between 1.05 and 1.10.

[72] Dr Toan said that if the drains became blocked he would expect a buildup of approximately a metre of groundwater at the base of the slope. He said that in this "worst case scenario" the FOS in the slope would be approximately 1.38. He agreed that an FOS of 1.38 would not be an acceptable state of affairs if it was to persist for a prolonged time.

[73] Mr Dooley took issue with Dr Toan's approach because he said that if there was a buildup of water at the base of the slope there would be a corresponding buildup of groundwater in the slope itself. This would significantly reduce the FOS within the slope. Logic suggests to me that, if the base of a slope becomes saturated for a prolonged period, the level of groundwater further up the slope will inevitably also rise over time because the base cannot absorb any further water. It is at this point that the effect of any reduction in performance of the drainage system is likely to be pronounced.

[74] The FOS calculations are helpful in a general sense but they do not provide great assistance in relation to the issue of causation because they do not reflect the position as at 2006 when the crack in the turning area first appeared and in July/August 2008 when the slab separated from the rest of the turning area. I

consider the most helpful evidence in this context to be that which is closest in time to those significant events.

[75] The Council commissioned Riley to provide it with advice in September 2006 after the Cattells first raised the issue of the cracking in the turning area. Riley produced a report dated 13 September 2006 (the Riley report) that contained the following observations under the heading "Slope Stability":

> There is visual evidence of soil creep on the steep 25˚ batter below the reserve boundary. Several minor cracks can be seen along this batter which are consistent with seasonal wetting and drying of the soils and which can promote soil creep. *Below 5 Mulberry Place these cracks become more significant.*
>
> As previously advised, a wedge of fill extends over much of 5 Mulberry Place and the reserve batter to the north. Much of the fill was probably placed during the original subdivision of the area. Close to the common northern boundary some additional fill may have been placed in the formation of the construction accessway and subsequent driveway/turnaround extension which is now supported by the timber retaining wall Fill material will be placing a surcharge load on the original slope. We understand no recent earthworks have been undertaken within the council reserve which could have adversely affected stability.
>
> It is likely this slope has been gradually moving during and following extreme weather events. Once this movement has become great enough to damage the nearby stormwater connection, leakage from this pipe has probably been concentrated within the slope. *This is the likely cause of the more serious tension cracking and toe heave observed beneath 5 Mulberry Place.*
>
> The driveway/turnaround extension is supported by a timber pole retaining wall. The wall was designed and installed following a slumping of the construction accessway. The design should have recognised the presence of the fill material (much of the embedded pole length is founded in full and would have been observed during installation) and the potential for creep movement of the wedge of fill. The potential creep movement was reported over the eastern slopes and the batter within the reserve is steeper than the eastern slopes. We consider it would have been prudent to design and construct a more robust wall to protect 5 Mulberry Place, given the topography and subsurface conditions.
>
> (Emphasis added)

[76] It is now clear that Riley's observations about the amount of fill present on the Cattells' property are incorrect. It is now common ground that .4 of a metre of fill was used in the construction of the turning area, and this is unlikely to have been a significant factor for present purposes.

[77] Importantly, however, the Riley report recognised in 2006 that "more serious tension cracking and toe heave" was visible below the northern boundary of the Cattells' property. The authors of the report clearly considered these phenomena to be of much greater significance than the minor cracks observed on other parts of the slope. They attributed the tension cracking and toe heave in part to leakage of water into the slope from the displaced PVC stormwater connection.

[78] The Riley report recorded that by September 2006 the crack in the turning area was up to 30 mm wide, and ran parallel to the northern boundary and sloping batter. It also observed in the passage set out above that movement had occurred during and following extreme weather events. Mr Dooley says it is well established that most land slips and land movements occur following extreme rainfall events. He says that the continued movement of the slope indicates that the groundwater level within the slope has risen and the FOS of the slope has correspondingly decreased.

[79] The Cattells commissioned Harrison Grierson Consultants Ltd (Harrison Grierson) to provide them with geotechnical engineering advice after the turning area suffered further damage following the heavy rainfall on 31 July 2008. Harrison Grierson produced a report dated 27 August 2008 (the Harrison Grierson report). This contained the following observations relating to the cracking of the slab and damage to the PVC stormwater pipe:

> - The concrete slab: The observations and measurements made indicate a complex movement consisting of lateral displacement, settlement and tilting towards the north. The crack developed across the slab is almost parallel to the northern boundary. The crack is wider on the eastern side (up to 40mm wide) and it closes towards the western side of the slab.
>
> - The retaining wall has been laterally displaced downslope towards the northern boundary. A gap up to 30mm wide was observed between the timber lagging of the wall and the concrete slab. No sign of tilting on the retaining wall was observed.
>
> - The white PVC stormwater pipe from the existing cesspit on the north-eastern corner of the slab was inspected. The opening between the pipe and the elbow has been sealed with black tape as reported in the correspondence between the client and NSCC in 2007. The shape of the opening indicates lateral movement in the range of 50mm to 80mm associated with slight displacements in the

> elbow in the vertical direction (downwards) and transverse direction (eastwards).

[80] The Harrison Grierson report also confirmed that there was a horizontal crack in the soil of the reserve just below the northern boundary of the Cattells' property. It said this was "typical of a land slope stability issue indicating that the ground has moved and caused the parallel crack in the concrete block". A photograph of the crack in the Harrison Grierson report suggests it was more pronounced in 2008 than it was during the site visit I conducted with counsel on the first day of the trial.

[81] The Harrison Grierson report concluded that the displacement in the stormwater pipe had occurred as a result of movement in the slope within the reserve and not as a result of movement of the slab. Furthermore, it considered the construction of the turning area in 1997 would have resulted in only minor reduction of the slope stability, and that sudden elevation in groundwater levels following heavy rainfall had led to minor slope movement in the reserve towards the north. This in turn had been the main cause of the cracking in the turning area.

[82] The Riley report in 2006 and the Harrison Grierson report in 2008 therefore both refer to indicia calling into question the stability of the slope at the time of the damage that occurred during those years. These suggest that the instability of the slope was likely to have been the cause of the damage.

[83] The alleged inadequacy of the retaining wall at the northern edge of the turning area was one of the principal areas of focus for the Council during the trial. It contended that the design and construction of the retaining wall was manifestly inadequate to support the weight of the turning area and vehicles using it.

[84] The Cattells built the retaining wall in 1997 when they added a room and a deck to the eastern end of the east unit. Heavy machinery was brought to the site to drive piles into the ground to support the new structure. In order to permit the machinery to gain access to the site, the builders cut a path or rough road to the construction site along the northern side of the property and placed compacted fill on top of it. Spoil from the cut was then apparently dumped to the northern side of the newly created accessway.

[85] The spoil subsequently slumped towards the northern boundary of the Cattells' property. They or their builders then engaged Harrison Grierson to design a retaining wall to rectify this problem. On 5 September 1997 Mr Cattell applied to the Council to vary the existing resource consent in respect of the construction works so as to include the retaining wall. The wording of Mr Cattell's letter to the Council makes it clear that the wall was by that stage already in the course of construction. In October 1998, after the wall had been completed, Harrison Grierson supplied the Council with producer statements in respect of the design and construction review of the wall. The Council subsequently granted a land use consent in respect of the wall in July 2001.

[86] It now appears to be common ground that the retaining wall is inadequate having regard to the fact that it is situated so close to the slope in the reserve. The Council's experts both say that the retaining wall was inadequate. Mr Dooley, the expert called by the Cattells, concedes that with the benefit of hindsight a much sturdier structure should have been erected having regard to the proximity to the wall of the slope in the reserve.

[87] I do not accept, however, that the retaining wall was the root cause of the problem even though it now seems obvious that a sturdier structure should have been constructed. The report produced by Harrison Grierson in 2008 confirms that the retaining wall has moved and, for the reasons that follow, I am satisfied that the authors of the report have correctly concluded that this was caused by the movement of the land on which it was built.

[88] For that reason the manner in which the retaining wall was constructed is effectively beside the point for present purposes. Liability for nuisance is strict. A landowner who removes support from a neighbour's land cannot escape liability for resulting damage by pointing to shortcomings in the construction of structures erected on the neighbour's land. For the same reason it is not necessary for me to resolve the dispute between the experts as to whether the concrete in the turning area was reinforced or not.

[89] I accept that there has not been a major failure of the ground and soil within the slope. At present there are no indications of toe heave or other signs of major movement within the slope. I consider, however, that the damage to the turning area is so significant that it cannot be explained, as Dr Toan attempts to do, by natural seasonal ground creep. Rather, I consider that it is linked to the stability of the land in the reserve, as suggested by Harrison Grierson in 2008. That likelihood is supported by the existence of the toe heave and cracking observed by Riley's staff in 2006.

[90] I consider it significant that Dr Toan places emphasis on his perception that the damage to the turning area has occurred on a gradual basis and not as a result of any "episodic event". This ignores Mr Cattell's unchallenged evidence that the damage to the turning area in July 2008 occurred after a night of very heavy rain. I consider this to be an episodic event in the sense that Dr Toan used that term.

[91] I consider the contemporary evidence, and in particular the observations made in the Riley report in 2006,[18] suggests that the original crack in the turning area that Mr Cattell observed in 2006 was caused by movement in the underlying land. It is not strictly necessary for present purposes to decide whether that was caused by ground creep or instability of the slope. The reference in the Riley report to the existence of toe heave on the slope at that time suggests, however, that it was instability within the slope.

[92] I consider that the observations made in the Harrison Grierson report in 2008[19] confirm that instability in the slope was the cause of the further damage that occurred on 31 July 2008. This also accords with logic given the extent to which the crack in the turning area suddenly widened on that date. To borrow Dr Toan's phrase, I view that type of damage as being consistent with an episodic event that is unrelated to seasonal ground creep.

[93] I therefore conclude that the heavy rain that Mr Cattell described as having fallen on the night of 31 July 2008 caused groundwater in the slope to rise to a level

---

18 Set out at [76]-[79].
19 Set out at [80]-[82].

that rendered it unstable. It was probably able to rise to that level because of the impaired performance of the counterfort drainage system in prolonged periods of heavy rain. The instability caused the slope to move in a northerly direction, thereby causing the Cattells' land to move in a northerly direction as well. The crack in the turning area then widened as the movement of the underlying land caused the northern portion of the slab to move both horizontally and vertically.

[94] I am satisfied that the steepness of the slope in the reserve contributed in a material way to the movement of the Cattells' land because the geotechnical experts agree that the risk of instability increases as a slope becomes steeper. I also accept Mr Dooley's evidence that the land would not have moved to nearly the same extent if the reserve had remained in its original state.

[95] The angle of the slope was a direct result of the earthworks that the Council carried out in 1996. For that reason the Cattells have established that the movement of their land and the consequential damage to the turning area was caused by the non-natural use to which the Council put the land in the reserve. The Council has therefore committed the tort of nuisance.

The limitation defence

[96] Section 4(1) of the Limitation Act 1950 relevantly provides:

> **4 Limitation of actions of contract and tort, and certain other actions**
>
> (1) Except as otherwise provided in this Act or in subpart 3 of Part 2 of the Prisoners' and Victims' Claims Act 2005, the following actions shall not be brought after the expiration of 6 years from the date on which the cause of action accrued, that is to say,—
>
> (a) actions founded on simple contract or on tort:
>
> …

[97] Ordinarily, and in common with a claim based in negligence, a cause of action accrues in nuisance when damage occurs. This principle applies where, as in the present case, the cause of action is based on damage occurring through removal

of support by an adjoining or subjoining landowner. As recorded above, however,[20] each fresh subsidence gives rise to a new cause of action in nuisance.

[98] As will already be plain, further damage occurred to the turning area on or about 31 July 2008. The Cattells filed the present proceeding based on that damage on 2 July 2014. It follows that the Council cannot rely upon a limitation defence in respect of the damage to the house and turning area that Mr Cattell observed on 31 July 2008.

2. The claims based in negligence

[99] My conclusion in relation to the cause of action based in nuisance means it is not strictly necessary to consider the alternative cause of action based in negligence. In case I am wrong in relation to the question of nuisance, however, I will briefly consider that issue. I proceed on the basis of my conclusion that the Cattells can establish that the earthworks in 1996 caused the damage to the turning area.

Breach of duty to take reasonable care when carrying out the works in 1996

[100] I have already recorded that the Council accepts that in carrying out the earthworks in the reserve it owed a duty of care to the owner of the Cattells' land to exercise reasonable skill and care not to remove support to that land. I also proceed for present purposes on the basis that the Cattells can establish that the damage to their property was caused by the earthworks carried out by the Council in 1996.

[101] Two issues therefore need to be determined. The first is whether the Council breached its duty of care to the owner of the Cattells' land in carrying out the works in 1996. The second is whether the Council is entitled to rely upon either of the affirmative defences it has pleaded.

Did the Council breach the duty of care that it owed to the owner of the Cattells' land?

[102] The Cattells say the Council failed to install the counterfort drains properly and then failed to adequately maintain them and monitor their performance. For that

---

[20] At [12].

reason they argue that the Council breached its duty to take reasonable care to protect their land from the risk of damage caused by instability within the slope.

[103] The Council points out that it followed expert advice from Riley relating to the measures to be taken to guard against the possibility of instability within the slope. In particular, it installed counterfort drains in accordance with Riley's advice and there was no reason for the Council to believe these would be ineffective. Furthermore, it argues there is no reason to consider these have been ineffective because of the borehole tests that showed no groundwater to be present in July 2006.

[104] For the reasons I have already given[21] I am not satisfied that the Council breached its duty of care when it installed the counterfort drains. For the reasons I have also given, however,[22] I am satisfied that the Council breached its duty of care in relation to the maintaining and monitoring the performance of the drains. Furthermore, I am satisfied that the breach contributed in a material way to the movement of the Cattells' land that caused the damage to the turning area.

The limitation defence

[105] It is common ground that a cause of action accrues in negligence when the negligent act causes damage to the plaintiff. In the present case the evidence is that Mr Cattell noticed the damage to the house shortly after the heavy rain that occurred on the night of 31 July 2008. The claim in negligence is therefore within time in relation to this damage because the proceeding was filed on 2 July 2014, which was within six years of the damage occurring.

[106] The position in relation to the turning area is different because Mr Cattell first observed hairline cracking to the turning area in early 2006. My conclusion in relation to causation is that this damage occurred through movement of land in the reserve. Discovery of the damage in 2006 prompted the Cattells to engage in correspondence with the Council in which he sought to have the Council accept responsibility for repairing the damage to his property.

---

21 At [41]-[43].
22 At [44]-[54].

[107] Mr Cattell's first letter to the Council is dated 13 March 2006. It refers to the fact that he had discovered a hairline crack in the northern edge of the concrete turning area "a few months ago". This suggests that he first noticed the crack in late 2005 or early 2006. Mr Cattell said in the letter that the crack was initially about four metres long, but had become wider and longer since then. The letter went on to say:

> As at 17 February last photographs showed that (measured at the edge of the concrete) the crack had changed from a hairline to a gap of about 8 mm and retreating to a hairline along a 6 metre length. At that time the measurement of the separation of a joint in a storm water drain pipe from our silt trap into a discharge pipe showed that there had been a subsidence of the ground of the Reserve in three planes. The soil had moved some 100 mm away to the North and 25 mm to the East and another 25 mm down. As at 13 March photographs show the gap in the concrete to have widened to 25 mm and had increased to a 9 metre length – which is indicative of a lot of movement in less than a month.
>
> A couple of weeks ago the writer expressed our concerns by telephone to Council. Someone came and inspected the problem but since then we have heard nothing and I am worried that what is presently the molehill of subsidence (albeit damaging) might become the mountain of a slip of greater proportion (and further damage our property).
>
> Will you please tell me what the council proposes to do to stabilise the Reserve and thus stop the slippage before any further damage occurs.

[108] Correspondence then continued until 4 December 2006, when Mr Cattell advised the Council that if it did not provide him with a satisfactory response within ten days he would issue proceedings. On 12 February 2007, Mr Cattell wrote a further letter to the Council in which he said that he had arranged for proceedings to be filed because he was concerned that the onset of heavy rain would exacerbate the existing damage to his property. On 28 February 2007 Mr Cattell sent a further letter responding to a letter dated 26 February that he had received from the Council. Mr Cattell's letter reiterated that "legal proceedings were underway", and ended with the words "I look forward to meeting you in Court".

[109] This series of events makes it clear that the damage occurred in late 2005 or early 2006. Furthermore, the Cattells became aware of it a short time after it occurred. That being the case, they needed to issue proceedings no later than late 2011 or early 2012 if they wished to avoid the Council defending the claim in

negligence on limitation grounds. They failed to do so because they did not commence this proceeding until 2 July 2014.

[110] It follows that the Council must succeed in its limitation defence in relation to the breach of duty to take reasonable care when carrying out the works in 1996.

Breach of duty to abate a hazard

[111] The statement of claim also alleges that the Council breached a duty to repair the defects that caused instability in the slope. In other words, after having been placed on notice of a hazard on its land the Council failed to take reasonable steps to remove that hazard.

[112] In this context Mr Bigio relied on the following observations made by Lord Wilberforce in *Goldman v Hargrave*:[23]

> One may say in general terms that the existence of a duty must be based on knowledge of the hazard, ability to foresee the consequence of not checking or removing it, and the ability to abate it.
>
> … the standard ought to be to require of the occupier what it is reasonable to expect of him in his individual circumstances. Thus, less must be expected of the infirm than of the able bodied: the owner of a small property where a hazard arises which threatens a neighbour with substantial interests should not have to do so much as one with larger interests of his own at stake and greater resources to protect them: if the owner does what he can and promptly calls on his neighbour to provide additional resources, he may be held to have done his duty: he should not be liable unless it is clearly proved that he could, and reasonably in his individual circumstance should, have done more.

[113] There can be no doubt that Mr Cattell's correspondence to the Council during 2006 and 2007 placed the Council firmly on notice of his view that the cracking he had observed in the turning area in 2006 was due to instability in the slope in the reserve. It is also undeniable that the Council took no steps then or thereafter to remove or further reduce the risk of instability in the slope.

---

[23] *Goldman v Hargrave* [1967] 1 AC 645 (PC) at 663 as applied in *Atlas Properties Ltd v Kapiti Coast District Council* HC Wellington, CP No 172/00, 19 December 2001 at [92] per Durie J and *French v Auckland City Corp* [1974] 1 NZLR 340 (SC) at 349 to 350 per McMullin J. Mr Bigio also relied upon *Holbeck Hall Hotel Ltd v Scarborough Borough Council* [2000] QB 836 (CA) but that case was based in nuisance so I have not referred to it.

[114] This is not to say, however, that the Council sat on his hands when it received Mr Cattell's complaint in 2006. As will already be evident, it promptly sought advice from Riley, a firm with recognised expertise in geotechnical matters. It then retained Riley to deal with other issues that Mr Cattell raised during 2006 and 2007. Riley's advice from the outset was that the inadequacy of the retaining wall on the Cattells' property was to blame for the cracking in the turning area.

[115] I do not consider that the Council could have done much more. It was entitled to proceed on the basis of Riley's advice that the problem had been caused by a structure on the Cattells' land rather than instability of the slope. The Cattells cannot prove that the Council knew a hazard existed on its own land. For that reason I do not consider the Council breached any duty under the principle identified in *Goldman v Hargrave.*

Relief

[116] I have not been asked to make final orders determining the steps the Council should take to prevent further damage occurring to the turning area. Instead, Mr Bigio suggested that I should issue a mandatory injunction requiring the Council to restore adequate support to the Cattells' land and then leave it to the parties in the first instance to determine how that should be done.

[117] I decline to take that step because I consider such an order to be impracticable. It would leave the Council to select the manner in which it complied with the order, and this creates the risk that the Council might not select an appropriate remedial option. Instead, I propose to make no order at this stage and to leave it to the parties and their experts to endeavour to reach agreement regarding the appropriate steps to be taken. If they cannot reach agreement, a further hearing will be necessary to determine the appropriate remedy to be ordered.

[118] Mr Dooley said he favoured the installation of a series of closely spaced poles driven into the ground at regular intervals at the top of the slope in the reserve. The disadvantage of this is that it would still require the Cattells to repair the damage to the turning area, the cost of which they would no doubt seek to recover from the Council by way of consequential losses.

[119] The evidence left me with the impression that the installation of a much more robust retaining wall on the northern edge of the turning area might provide an effective solution to the overall problem. That may provide a convenient starting point for the discussions that must now take place.

Result

[120] I find that the Cattells have established the cause of action based in nuisance but not the cause of action based in negligence.

[121] I reserve leave to the parties to return to the Court on 72 hours notice for such further and other orders as may be necessary to ensure that the Council restores support to the Cattells' land.

Costs

[122] The Cattells have succeeded and in the ordinary course of events would be entitled to costs against the Council. If the parties cannot reach agreement regarding costs Mr Bigio is to file and serve a brief memorandum (ie no more than five pages in length) setting out the costs his client seeks and I will give directions for the filing of memoranda in response and reply.

Lang J

Solicitors:
Pidgeon Law, Auckland
D R Bigio / A J Steel, Shortland Chambers, Auckland.
Heaney & Partners, Auckland