Y TRIBIWNLYS EIDDO PRESWYL (CYMRU)

THE RESIDENTIAL PROPERTY TRIBUNAL (WALES)

Reference:	RPT/0012/10/17
Tribunal:	Dr Christopher McNall (Lawyer – Chairperson) Mr Mark Taylor MRICS (Surveyor Member) Mrs Carole Calvin-Thomas (Lay Member)
Appellant:	Miss Amanda Hopkins (Represented by Ms Sally Richards)
Respondent:	Neath Port Talbot County Borough Council / Castell-Nedd Port Talbot Cyngor Bwrdeistref Sirol (Represented by Mr Stephen Cottle, Counsel)
Hearing:	Heard in public in Cardiff on 18 December 2017; 1 March 2018; 17 April 2018; 20 April 2018
Property:	84 Cyfyng Road, Ystalyfera, Neath Port Talbot SA9 2BT

Decision

The Appeal is dismissed.

We confirm the Emergency Prohibition Order dated 8 August 2017 made in relation to 84 Cyfyng Road Ystalyfera, Swansea SA9 2BT.

That order remains in force without amendment.

Reasons for the Decision

Introduction

- These are the reasons for our unanimous decision to confirm an Emergency Prohibition Order ('the Order') which was issued on 8 August 2017 by Neath Port Talbot CBC ('NPTC') in relation to 84 Cyfyng Road, Ystalyfera, Swansea SA9 2BT ('the Property').
- 2. 84 Cyfyng Road is a 5 bedroomed mid-terrace house, which Miss Hopkins bought for £84,500 in February 2016. It lies to the east side of Cyfyng Road, and was built in the mid to late nineteenth century. It is built on a fairly steep hillside running from front to rear. So,

like many of the other properties in this terrace, it has a two-storey front elevation but a three-storey rear elevation.

- 3. The back door gives onto a concrete patio. There is a large, wide, crack running the entire width of that patio from the rear wall of the house (by the drainpipe and the rear door) down to the edge of the patio. There is also a tension crack (identified by Mr Atherton in the diagram at page 540 of the bundle) of about 50mm (or 2 inches) wide between the patio and the rear wall.
- 4. Steps lead down from that patio to terracing which has been built up in the past, before Miss Hopkins bought the property. The terracing there is because of the slope behind the house, and is to make the garden more useable. Counting the patio, and doing the best that we can from the photographs and other documents, there are four levels of terracing, covering a distance of about 11m, with a drop of about 3.4m. Each level is about 2 feet higher than the other. Miss Hopkins' garden is fenced with a wooden pallisade fence. Behind her rear fence, and not part of Miss Hopkins' garden, or her land, the slope continues down to the (now filled-in) Swansea canal at the bottom.
- 5. Miss Hopkins' house does not share the rear building line of 85-86 and the rest of the terrace, but projects about 1-1.5 metres further out onto the slope.
- 6. The slope referred to runs along behind the entire length of the terrace. There is no obvious geological or other feature which differentiates the slope behind Miss Hopkins' house from the slope behind the other houses.
- 7. On the night of 26/27 February 2017, there was a large landslip on the slope. This was centred on number 86, which is separated from number 84 only by the width of number 85. That landslip affected land directly behind number 84, even if not legally part of Miss Hopkins' garden.
- 8. That landslip seriously affected the garden of number 85. Whether caused by the landslip or not, there has also been some movement of the soil vent pipe in number 85 which became disconnected from the drainage pipe, meaning that toilet paper and effluent were discharging by her wall (albeit on the number 85 side).

- 9. On 4 April 2017, there was a further landslip. Again, and although this was centred on number 86, it affected land directly behind Miss Hopkins' house.
- 10. On 8 June 2017, there was a further landslip a third. This was in a different location, further along and lower down the slope, behind 90-92.
- 11. Mr Atherton measured the distance from the rear of Miss Hopkins' house to 'the top of the mudslick' as 10.8m (or about 35 feet).
- 12. Although we did not visit the Property (for reasons which were explained in the Tribunal's procedural decision on 30 October 2017) the photographs, drone footage, and other documents which we have seen combine to give a very clear picture of what had happened on the slope.
- 13. The successive landslips in 2017 have carried away a large part of the slope. Earth, vegetation, and terracing and other reinforcing materials have all moved downhill. Whilst it is fair to say that the landslides do not seem to have carried away any of Miss Hopkins' garden in the same way that they carried away the gardens of her neighbours (because her garden is significantly smaller than theirs, and does not go as far down the slope), the overall picture remains the same.
- 14. The landslips were mass movement over a large area of the slope. The British Geological Survey reported the movement as 10 metres. Doing the best that we can from the photographs which we have seen, we estimate that the landslips affected an area approximately 100 or so feet long and 60 or so feet wide. It is hard to estimate with accuracy the volume of the earth which moved, but it appears to have been of in the order of several hundred cubic metres, which will therefore have weighed something of in the order of several hundred tonnes.
- 15. One effect of the landslips was that a slope which was already very steep became even steeper. Its angle in places is now about 30 degrees (or approximately 1.5 to 2 in 1) and in places on the lower slope even steeper.
- 16. Another effect was that a combined sewer pipe (effluent and surface water) running across the slope, and connected to 84, had been broken in two places at either side of the landslips behind number 85, and behind numbers 90/92.

- 17. Water was cascading down the slope from another broken pipe, forming "gullies". Land which was terraced and covered with vegetation is now no longer terraced and the earth is exposed to the elements and the effect of running water.
- 18. The drone footage taken by NPTC on 26 October 2017 was shown on the first day of the hearing. Whilst we must be careful to remind ourselves that a visual impression from drone footage is just that – an impression – it is nonetheless part of the evidence, to be set alongside and tested against the other evidence placed before us. That footage is dramatic, showing a long and precipitous slope, and a large area of 'scarring' where the landslides have taken place.

Some general comments

- 19. In the circumstances of this appeal, it is important that we make clear some of the factors which have, and which have not, played a part in our reasoning, and that we set out some of the principles which have guided how we have arrived at our decision.
- 20. We recognise and acknowledge the genuine strength of feeling of Miss Hopkins, who, together with her four children (2 adult children, and 2 teenagers), moved out of her home immediately in response to the Order, and has not been able to return to live there since. She and her family moved out in such haste that they had to leave the family pets behind, visiting them every day to feed and water them.
- 21. Her strength of feeling is understandable. The Order came 'out of the blue' because (unlike the other appeals which we heard) it had not been preceded by any Hazard Awareness Notice. The Order was the first such paperwork which she had received, although she had attended meetings called by NPTC to discuss the hazards affecting other neighbouring properties.
- 22. It is beyond doubt that having to leave their home at such short notice caused enormous distress and disruption to the lives of Miss Hopkins and her family, who were split up and living in a succession of temporary accommodations. Miss Hopkins sets out these circumstances forcefully in the letter which supports her appeal and in her formal statement.
- 23. But we are bound to apply the law, which means that we must look at the matter objectively. The law, set down by Parliament, places clear limits on our jurisdiction and our decision-making powers. The law does

not allow us to take strength of feeling or sincerity or personal circumstances into account in considering our decision. Nor can we take into account factors such as the availability of alternative accommodation.

- 24. The Tribunal is an adversarial jurisdiction. We are not a board of inquiry, and so do not have the power to conduct any wider-reaching inquiry as to whether any person or body has been at fault for the landslides. Likewise and whilst this may be frustrating to the Appellant we do not have the power to compel NPTC, or Welsh Water, or indeed any other public body, to perform any particular work or works alleged (for example) to be capable of remediating the penetration or flow of water into or onto the slope.
- 25. Nor is this appeal an inquiry into the manner in which NPTC has dealt with the people affected by the Order.
- 26. An argument is made as to why NPTC did not act sooner, with the inference that, had it genuinely believed that there were hazards, it would have done so. But, for reasons which we set out below, we do not consider that argument to be well-founded. We remind ourselves that the only order under appeal is the one which was issued on 8 August 2017, and that is the one which we must concentrate on.
- 27. Although this appeal was heard together with two other appeals, we have considered each appeal individually, and on its own merits, doing the best that we can wherever there has (inevitably) happened to be overlap between the evidence and materials presented in relation to the three appeals. But, inevitably, some of our findings and reasons are common to all three appeals.
- 28. This appeal is by way of a re-hearing, and may be determined having regard to matters of which the authority were unaware: section 45 of the Housing Act 2004. Since our jurisdiction is by way of a re-hearing and not by way of review, we do not need to decide whether the Order was imposed reasonably in a public law sense.
- 29. We must simply look at all the information available to decide whether the statutory conditions for the issue of a valid Emergency Prohibition Order are met or not. We can properly take account of all evidence available to us at the date of hearing, even if that evidence was produced late. For various reasons this was an appeal in which fresh evidence was produced throughout the course of the hearing. We have not had regard to anything sent to the Tribunal by any party after the

closing of this appeal on the afternoon of Friday April 20.

- 30. In this appeal, NPTC bears the legal and evidential burdens of establishing that the Order should be confirmed.
- 31. Appeals are decided on the basis of evidence. The standard of proof is the ordinary civil standard of proof. That is the balance of probabilities, or whether something is 'likelier than not'. So, NPTC must prove on the evidence that the conditions in Housing Act 2004 section 43 are met. That is to say, NPTC must establish:
 - 31.1 That it is likelier than not that the identified Category 1 hazards exist; and
 - 31.2 That it is likelier than not that those hazards cause an imminent risk of serious harm to the health or safety of any of the occupiers of those or any other residential premises.
- 32. It is important to remember that even where as here the matter is one of the gravest importance to the affected parties, the Judicial Committee of the House of Lords has made it clear that there is no enhanced or greater burden of proof than the ordinary balance of probabilities: see <u>Re B (Children) (Care Proceedings: Standard of</u> <u>Proof) [2008] UKHL 35</u> and the remarks of Lord Hoffmann at Paras [2] and [13].
- 33. We remind ourselves that an Emergency Prohibition Order of the kind under appeal in this case is one of the most powerful tools available to a local authority. The effect of such an Order is to prevent any lawful occupation of the property.
- 34. Therefore, and recognising the impact of this Order which is enormous - we have given the most anxious and careful scrutiny to all the evidence which has been placed before us during the course of the appeal, whether or not it is expressly referred to in this Decision or not. We have also considered all the submissions and arguments made, both orally and in writing, whether or not referred to in this Decision.

The Hazards, and the Order

35. On 8 August 2017, NPTC issued the Emergency Prohibition Order which is the subject matter of this appeal ('**the Order**'). NPTC issued that Order under section 43 of the <u>Housing Act 2004</u>, which, so far as material, reads as follows:

"Emergency prohibition orders

(1) If

- (a) the local housing authority are satisfied that a category 1 hazard exists on any residential premises, and
- (b) they are further satisfied that the hazard involves an imminent risk of serious harm to the health or safety of any of the occupiers of those or any other residential premises, and
- (c) [not relevant]

making an emergency prohibition order under this section in respect of the hazard is a course of action available to the authority in relation to the hazard for the purposes of section 5 (category 1 hazards: general duty to take enforcement action)."

- 36. On 7 August 2017, Mr Celvin Davies of NPTC had 'scored' those hazards using the system set down in <u>The Housing Health and Safety</u> <u>Rating System (Wales) Regulations 2006:</u> SI 2006/1702 ('**HHSRS**')
- 37. We had written evidence in the form of witness statements from Mr Davies, and we heard him give oral evidence. He qualified as an Environmental Health Officer in 2000. He is a Team Leader at NPTC. The main part of his work involves HHSRS assessments.
- 38. We were impressed with his demeanour and evidence, which was given clearly and consistently. It is plain that an extremely heavy responsibility came to rest on his shoulders when it came to making the HHSRS scorings in August 2017. In our view, he took that responsibility seriously and professionally.
- 39. We find that when he made his HHSRS scoring on 7 August 2017 he had carefully considered the materials and information which were before him, including from experts in disciplines in which he himself is not an expert. He is not a geologist and he is not a structural engineer, but NPTC had sought out advice from those who were, and made it available to Mr Davies.
- 40. Mr Davies fairly acknowledged that the assessment of risk for the purposes of HHSRS was sometimes difficult, especially where as in

this case – the examples in the operational guidance do not deal with the situation. In particular, the operational guidance given in relation to structural collapse is more concerned with falling elements such as ceilings, fixtures and fittings rather than with complete structural collapse, which is a relatively rare occurrence.

- 41. Mr Davies' oral evidence of the HHSRS scoring exercise in general, and how he had approached the scoring in this case, showed him not only to be conversant with the relevant principles, but also to be thoughtful and reflective as to how those principles could most appropriately be applied.
- 42. We accept Mr Davies' evidence that, when he made his assessment in August, this was a genuine reassessment, and was not simply a recapitulation of the earlier scoring.
- 43. Mr Davies was not effectively challenged in cross-examination on his figures. But it was demonstrated through skilful cross-examination of another of NPTC's witnesses, Mr Andrew Arthur (a chartered environmental health practitioner who had been engaged to conduct an external review of the HHSRS scoring for number 86) that Mr Davies had made some errors in calculation in relation to his HHSRS scoring of number 86, and seemed to have made the same errors in his scoring of 84.
- 44. We reject the suggestion that there is something suspicious or malign in this. Mr Davies' honesty was not directly challenged in crossexamination, but, having had the chance to hear Mr Davies give evidence, and to assess his demeanour, we are entirely satisfied that his errors were inadvertent, and were not done to deceive, mislead, or make the situation seem more hazardous than Mr Davies genuinely thought it was.
- 45. More importantly, we are also satisfied that the errors in the HHSRS did not ultimately affect the categorisation of the hazard in relation to this Property. During the course of the appeal, and doubtless prompted by the above, NPTC reviewed the HHSRS scoring and produced the following outcomes. Significantly, this did not result in any change to the categories.

Hazard	Numerical Score	Band	Category
17 (Personal	3138	В	1
Hygiene,			

Sanitation and			
Drainage)			
29 (Structural	2562	В	1
Collapse and			
Falling Elements)			

- 46. Miss Hopkins has not placed before us in evidence any alternative HHSRS scoring by some other competent and appropriately qualified professional to demonstrate that different scores could or should have been arrived at.
- 47. Based on Mr Davies' work, NPTC was satisfied that certain Category 1 hazards existed on the premises (HA 2004 s 45(1)(a)) and was satisfied that those presented an imminent risk of harm to the health and safety of the occupiers (HA 2004 s 45(1)(b)).
- 48. For the sake of completeness, and as a matter of law, for the purposes of the <u>Housing Act 2004</u>, residential premises include a dwelling (s 1(4)) and a dwelling in turn includes a garden (s 1(7)). Hence, an Emergency Prohibition Order can appropriately be directed to the condition of land in a garden.

49.	The two	identified	Category 1	hazards	were:
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Hazard	Deficiencies which contributes
	(sic) to the hazard
Personal Hygiene, Sanitation and	Following a landslide of the land
Drainage (Hazard 17)	behind the dwelling, the public sewer
(meaning 'An inadequate provision of	serving the dwelling is now
(a) facilities for maintaining good	disconnected from the sewerage
personal hygiene; (b) sanitation and	network.
drainage')	
Structural collapse and falling	The dwelling is located within the
elements (Hazard 29)	Panteg/Godre'r Graig landslip area
(meaning 'The collapse of the whole	which continues to regularly suffer
or part of the dwelling or HMO')	from significant land movement.
	The top terrace of the rear garden
	has a large crack running from front
	to back. The right section of the
	terrace has dropped towards the rear
	right corner of the garden.
	Render cracking from sill of right
	kitchen window to head of right living

room window.
Render crack below right front room
window sill.

50. 'Structural collapse and 'falling elements' is summarised in the HHSRS Operating Guidance issued by the Office of the Deputy Prime Minister of UK Government in February 2006) as follows:

> "this category covers the threat of whole dwelling collapse, or of an element or part of the fabric being displaced or falling because of inadequate fixing, disrepair, or as a result of adverse weather conditions. Structural failure may occur internally or externally within the curtilage threatening occupants, or externally outside the curtilage putting at risk members of the public".

51. In short, and taking all the above into account, we are satisfied that the hazard scoring exercise which Mr Davies conducted was a sound one, competently conducted, and which can be relied upon.

The works

- 52. It is important to note that the Order was made subject to conditions which, as the Order states, if complied with, would have led NPTC to review the Order. NPTC's opinion was that the works specified in Schedule 2 of that order would reduce the potential for harm to the occupiers and any visitors to an acceptable level that would allow the order to be revoked.
- 53. Schedule 2 reads:

Works

There is evidence of movement to the land to the rear of the property. A structural engineer should be commissioned to investigate the stability of the land and all buildings and structures situated upon it, and all works recommended in the subsequent report undertaken.

In consultation with the Sewerage Undertaker, disconnect all drainage connected to the sewer at the rear of the property and make arrangements to connect to a functioning public sewer network. Rearrange internal foul drainage as necessary in order to discharge to the public sewer network.

54. As a matter of law, NPTC was obliged to consider (among other matters) whether an Improvement Notice was the most appropriate action to deal with the Category 1 hazards which it had identified. NPTC considered that an Improvement Notice was not the most appropriate action, 'as immediate action is required to protect the occupiers and deal with the risks encountered'.

55. In his evidence, Mr Davies specifically addressed the question of why an Improvement Notice had not been issued. He was aware of the requirement of imminent risk to issue an Emergency Prohibition Order, and how this differed from an Improvement Notice. His position was that, as matters stood at the time of the hearing, he was not satisfied that there was sufficient evidence to allow him to withdraw the Order and issue an Improvement Notice. We agree with his analysis, and we accept his evidence.

The scope of this Appeal

- 56. The law requires that a Notice of Appeal be filed within 28 days of the Order that is to say, by no later than 5 September 2017. That was not done. The Tribunal did not receive a Notice of Appeal until 5 October 2017. On 10 October 2017, the Tribunal made an order requiring Miss Hopkins to explain the reasons for the delay. On 30 October 2017 the Tribunal, considering representations from both parties, accepted that there were good reasons for the delay, and gave Miss Hopkins permission to appeal out of time.
- 57. The thrust of Miss Hopkins' appeal in the letter accompanying her Notice of Appeal is this:

"...In all meetings with Council officials, no evidence is being produced/provided to prove the houses, and not the made up land/ground are at risk. It's also very contradictory that houses both sides of a busy road are at risk, yet the road itself is deemed safe....The reason for my appeal is quite clearly the lack of evidence my property is at risk."

58. At the same time as giving permission for the late appeal, the Tribunal made a series of directions, including one requiring Miss Hopkins:

'if she accepts that there is or are any Category 1 hazards, (to serve) any evidence as to whether she says that an

improvement notice, hazard awareness notice, or demolition order would be the best course of action in relation to that hazard or hazards: see Housing Act 2004 Schedule 2 Paragraphs 7 and 8'.

59. In response to this, Miss Hopkins' basic position is set out in Paragraph 58 of her statement dated 17 November 2017:

"In summary I believe that the EPO was unjustified because my land was not affected by the landslide at all; my garden is still intact. So I do not feel the risk to my property is any higher than other properties further along Cyfyng Road that have not been issued with an EPO. The only valid concern of NPTC is that of sewerage and the property not having a functioning drain. I could not undertake any remedial work in regards to this as Welsh Water will not enter the property to complete works while an EPO is in place. An improvement notice rather than an EPO would have been more appropriate and would have meant I could have ensured the relevant work was undertaken."

60. The issue of whether a hazard is best dealt with by way of an Improvement Notice rather than an Emergency Prohibition Order depends on whether that hazard involves an "imminent" risk of serious harm to the health or safety of any of the occupiers of those or any other residential premises. The question of 'imminence' involves addressing the detailed evidence concerning a number of technical matters.

The evidence

61. The Order, relying on *"evidence of movement to the land to the rear of the property"*, required Miss Hopkins to do the following:

"A structural engineer should be commissioned to investigate the stability of the land and all buildings and structures situated upon it, and all works recommended in the subsequent report undertaken."

62. This was an entirely reasonable condition for NPTC to impose. The situation following the landslips was one which self-evidently raised questions of stability and which called for the attention of an appropriately qualified structural engineer. There was nothing perverse or irrational about this requirement. We are satisfied that the

circumstances which presented themselves to Mr Davies and to NPTC in mid August 2017 justified that condition.

NPTC's evidence

- 63. This dispute largely depends on our assessment of expert evidence as to the stability of the slope.
- 64. In this regard, NPTC relied on the written and oral evidence of Mr Matthew Eynon BSc (Hons) MSc. He is a chartered geologist and a Fellow of the Royal Geological Society. He is a specialist and a director of Earth Science Partnership Ltd (ESP) who are consulting engineers, geologists and environmental scientists. He is a registered ground engineering specialist.
- 65. He has been involved with the area since mid-2016 when he prepared a report on the wider 'Panteg' landslip. He later wrote a report called 'Ground Instability to the rear of 86 Cyfyng Road and adjacent properties'. 84 is one of the 'adjacent properties' referred to. Although that report was not dated, Mr Eynon thought that had been written in the summer or autumn of 2017, and it was revised on 2 November 2017. He wrote a letter on 13 December 2017 with further information.
- 66. He impressed us a thoughtful and knowledgeable individual, and we accept his evidence. His view was that there were lots of different mechanisms happening on the slope at the same time. Some of his work was theoretical or conceptual – he had used a predictive slope stability model, and had done a sensitivity analysis to determine how the slope would move in the future. However, and even though it was theoretical or conceptual, no significant challenge was made to show that his working assumptions or conceptualisation of them were incorrect. He had assumed that the Property and the slope were each likely founded on a thin and variable horizon of made ground underlain by clay and weathered rock, with intact rock below that, and that proved to be correct. That is to say, his theoretical or conceptual modelling closely reflected the actual conditions as they were eventually discovered to be. We reject the suggestion that the failure to finalise a LiDAR (Light detection and ranging) survey undermined Mr Eynon's evidence or conclusions.
- 67. Mr Eynon considered that the stability of the hillside is significantly influenced by the strata types and the presence of groundwater. Where groundwater is close to ground level, then his findings (a preliminary

numerical stability analysis) indicated *'typically low and unsuitable factors of safety'*.

- 68. Mr Eynon considered the slope to be unstable. We accept his evidence. The slope is unstable.
- 69. NPTC also relied on the evidence of Mr David Bodycombe BEng Ceng. He has been a Fellow of the Institute of Civil Engineers since 2007. He is a consultant of CB3 Consult Ltd, who are a firm of engineering consultants. He was engaged by Atkins and Faithful & Gould to visually inspect the Property and assess its structure.
- 70. Mr Bodycombe impressed us as a knowledgeable and experienced individual, who had approached the task set for him in an appropriately objective and professional way. We have no hesitation in accepting his evidence.
- 71. He wrote an initial report on 9 August 2017. That was a report about the 'landslip to the rear gardens of 85, 86, 88 and 90/92'. Hence, that was not a report which expressly addressed the situation of 84, and Mr Bodycombe did not, at that time, visit 84 or conduct any tests there.
- 72. However, Mr Bodycombe did eventually visit 84 on 26 February 2018, to undertake an assessment of load bearing walls / span arrangements. He noted that the duo-pitched roof is supported by a principal timber truss positioned at approximately mid-distance between the party walls with numbers 83 and 85. That truss spans from front to rear, and provides intermediate support to timber cross-purlins that span from side to side.
- 73. The span arrangement of the timber joists at first floor level is from side to side, whilst at ground floor level it was not possible (due to floor and ceiling finishes) to discern exactly how the span of floor construction was arranged.
- 74. He confirmed his opinion that, if the rear wall of the property were to become unstable or were to be lost due to the landslips below, then it is probable that the roof structure, which is described above, would also suffer significant displacement and put the safety of the occupiers of 84 at risk.
- 75. In his oral evidence, he was clear that this was an appropriate matter for a structural engineer. He put it in this way: "*If you haven't understood how it has gone wrong, then you will have a great deal of*

trouble to find an engineering solution." We accept this evidence. It is a robust and conventional scientific and empirical approach.

76. The work and conclusions of Mr Bodycombe and Mr Eynon are each individually compelling. Read in conjunction, the case which they make is irresistible. They consistently demonstrate the condition of the slope and the implications for the Property. We are entirely satisfied that Mr Davies and NPTC's reliance on the work of Mr Bodycombe / CB3 and Mr Eynon / ESP was appropriate.

Miss Hopkins' evidence

- 77. Miss Hopkins did not give oral evidence to the Tribunal, although she was present for all the hearings and was represented throughout by Ms Richards. Her Notice of Appeal was supported by a lengthy letter and a formal Statement which exhibited a variety of documents. We have read all of these and given them full consideration. A striking feature is that much of her evidence deals with the struggles which Miss Hopkins has experienced with her insurers, who have refused to accept that any insured risk exists.
- 78. None of the other evidence relied upon by Miss Hopkins is expert evidence of an appropriate character, by appropriately qualified professionals, and none of it, examined critically, mounts any effective challenge to the methodology or conclusions of NPTC's experts.
- 79. Miss Hopkins has not commissioned a structural engineer to investigate the stability of the land and all buildings and structures situated upon it. Since no structural engineer was commissioned by Miss Hopkins, then she has not put forward any engineering solution in accordance with the notice, and no works have been recommended or done to stabilise the slope behind the property or to deal with the saturated ground in the garden.
- 80. That said, we recognise the unsuccessful efforts which Miss Hopkins (through Ms Richards) did make to find a structural engineer.
- 81. We also take account that, on 9 August 2017 that is to say, the very next day after the Order had been served on her Miss Hopkins entered into dialogue with her insurers, and indeed, on her evidence, was assured on 11 August 2017 that they saw no reason why her claim would be refused. Unfortunately, that position very quickly changed. Her insurers refused to indemnify on the basis that there was no

damage to her property, and that the existence of the Order did not mean that her house was uninhabitable.

Crawford Loss Adjusters

- 82. Miss Hopkins relies on a letter and Technical Report from Andrew Wyse BSc Ceng MICE FGS, of the Subsidence Division of Crawford Loss Adjusters, dated 15 August 2017.
- 83. They were written in connection with Miss Hopkins' insurance claim. Mr Wyse writes:

'As discussed the landslip that has affected the steeply sloping ground to the rear of your property has not resulted in any actual damage to the building. Under your buildings insurance policy, damage due to subsidence or landslip has to have been occasioned to the buildings for a valid claim to arise. In this instance, no such damage has occurred and, as such, we regret the cost of repairing the damage is not covered by your insurance policy....Further investigation of the damage is beyond our brief. Consequently, you may wish to consider engaging the services of an appropriate construction professional to ensure the correct remedial action is taken. Whilst we realise this may be disappointing, we hope you are reassured that your property is not suffering as a result of foundation problems'.

84. We give no weight to this letter, the Technical Report, or their conclusions. The writer was not called to give evidence and so cannot be cross-examined as to his methodology or conclusions. We take account of the context, which was an insurance claim, and the fact that Mr Wyse's clients were the insurers. We have not been shown the terms of the insurance policy, and so we do not know the definition of 'damage' in that policy, and whether it includes an inability to continue to live lawfully in a property which is the subject matter of an Emergency Prohibition Order. It is obvious that the letter proceeds on the basis that the only type of damage which qualifies under the policy is actual, present, existing, physical, damage to the property. The insurers have not undertaken any assessment of the stability of the slope, or how that stability might affect the continuing structural integrity of the Property. Indeed, the Technical Report carefully says that it should not be relied on as a statement of structural adequacy.

- 85. Subsequently, a Site Investigation Factual Report was commissioned by Crawford Claims Management. That is dated 19 December 2017. That deals both with the drainage layout, and also with two trial pits, one inside the rear wall of the property, and one outside.
- 86. Some of this evidence is more useful although the author was not called to give evidence.
- 87. Trial pit 1– inside the rear wall had been begun by Mr Atherton and was continued in December 2017.
- 88. It shows a 6 inch concrete floor, below which is about 700mm of made ground (being described as 'medium compact mid-brown silty sandy clay with occasional gravel and brick rubble') and below that about 900mm of made ground (being described as 'soft wet mid brown silty sandy clay with occasional stone nodules'). That is a total layer of about 1.6m. No rock was found.
- 89. Water was present. The interior trial pit was found to be open with standing water at 1650mm although the weather conditions outside were dry. That water has come from somewhere. But the source of that water was not investigated further and no water samples were taken from it for analysis. The made ground at 850mm was wet. Water acts as a lubricant which coats the particles of silt and clay, facilitating their movement against each other; and the weight of the soil. The presence of water is also consistent with the clear water from an unknown source known to be entering the inspection chamber at the rear of the property.
- 90. There is a concrete foundation, being about 350mm in depth, but a steel curved pin could still be driven into the ground underneath the foundation. No soil samples were taken.
- 91. Trial pit 2 is outside the rear wall. There was 200mm of concrete yard below which is 700mm of made ground, being described as 'loose mid brown silty sand with occasional gravel'. The trial pit was abandoned at 1200mm since 'made ground obstructs'. This corroborates that the property does not rest on rock or stone.

Mr Atherton

92. Mr Atherton has a BSc (Hons) in physics. He is not a structural engineer, having recently retired from a career as a house-builder. He is a member of the Cyfyng Road Landslip Group. He is obviously an

intelligent and practically-minded individual, with an eye for detail, and impressive ability in terms of technical drawing and calculation. He made reports on 1 November 2017, an email on 29 November 2017, a second report on 13 December 2017, and a third and final report on 13 March 2018.

- 93. He had personally undertaken some ground investigations at 84, and the factual evidence which he gave about those was helpful in giving us a fuller picture of the ground circumstances.
- 94. He had dug two trial pits which are the originals of trial pits 1 and 2 above. He did not hit rock in either. He stated that the cellar of 84 contained plaster cornice, Victorian timber, and a carpet which seemed to have been laid on a foundation level (beaten earth?) floor. None of those are visible on the photograph which is at page 558 of the bundle, which nonetheless shows obviously granular, non-rocky, material in the base of the interior pit.
- 95. The absence of rock is very important since, as Atkins / Faithful & Gould, advising NPTC on 9 August 2017, wrote in a Technical Note:

"The movement of garden walls, and the inevitable continued loss of ground, will further expose the rear walls and foundations of the property. In geotechnical terms, how the building reacts will depend on whether the rear wall is:

- founded on rock or colluvial deposits (previously failed material); or
- retaining material on the uphill side.

If the wall is not founded on rock, or acts as a retaining wall, the <u>geotechnical</u> hazard designation would be increased to Category 1: total loss of property likely and injuries are possible....

If the wall is founded on rock, and does not act as a retaining wall, the <u>geotechnical</u> hazard designation may be left at Category 2...."

96. The findings from the two trial pits are consistent with the boreholes excavated in November 2017. The nearest borehole to 84 was at 81 (borehole BH202). That showed about 3.9 metres of fill (suspected infilled basement/lower ground level of former properties) below which was sandy clay, firm to stiff brown gravelly sandy slightly silty clay, then layers of gravel down to sandstone at about 7 metres depth. It is clear

that there is no rock near to the surface under 84 so that it can not be properly said that the Property rests on rock.

- 97. 84 sits on the superficial geology which is colluvium (previously failed glacial material) and/or clay and/or on made ground (perhaps C19th or C20th building in-fill of the kind described by Mr Atherton) of various depths. None of those kinds of material are rock or stone. Therefore, and taking the Atkins' analysis in its Technical Note as accurate, there is a Category 1 geotechnical risk.
- 98. The Property does not sit on the solid geology of the rock below. Whilst there is obviously rock somewhere under the Property, this is at considerable depth. That rock may well be part of a coal seam called the 'red seam' which is conjectured to sub-crop behind the Cyfyng Road terrace. But the presence of rock strata at more than negligible depth below the Property is just not relevant for the purposes of this appeal.
- 99. Mr Atherton stated that the foundations were 'seated on a sandy clay which was damp dense extremely cohesive'. It is significant that he also mentions dampness, which indicates the presence of water, and which is consistent with the December 2017 inquiry into the trial pits.
- 100. But otherwise his descriptions are not sufficiently meaningful for the task which we are called upon to undertake. Mr Atherton accepted that he has not advanced any description or analysis of the kind which is called for by the British Standard for the field identification and description of soil in engineering contexts (BS 5930:2015). That calls for description of the nature of the soil grains; their state (including their water content, degree of saturation, strength or relative density, and stiffness); or their structure (including their fabric or microfabric features).
- 101. So, there is no evidence put forward by the Appellant about (for example) the force applied, the resistance, the type or granularity of the earth, its water content, or its shear resistance. So we do not know anything in any empirical, measurable, or reproducible detail about those things.
- 103. Paradoxically, Mr Atherton had himself recommended that soil samples be taken for laboratory shear strength testing. That was a sensible suggestion. But it had not been done, one the basis that it would have been too expensive.

- 103. Although it was suggested that the material identified by Mr Atherton was a good one upon which buildings can be built, and that Building Regulations approval would be given for such properties, no evidence was provided to support this assertion. Moreover, it fails to have regard to the particular characteristics of *this* property in *this* location.
- 104. In other non-observational respects Mr Atherton's evidence was less helpful, and we reject it. But, in rejecting it, we do not consider that Mr Atherton came to the Tribunal to give dishonest evidence. But, when it came to matters of analysis, his oral evidence confirmed the impression given by his written evidence that he had become far too close and involved with the situation for us to be able to safely treat the whole of his evidence as genuinely objective.
- 105. One aspect of this was the strong criticisms which he made of Mr Bodycombe's work and professionalism. As far as this Tribunal is concerned, we consider those criticisms entirely misconceived and reject them without hesitation.
- 106. Other parts of Mr Atherton's evidence were obviously affected by a desire not to say anything which might assist NPTC, including his assertion in his oral evidence that the slope would <u>not</u> have gotten steeper after the landslide.
- 107. The analytical elements of Mr Atherton's evidence were shown to suffer from serious inadequacies, and we do not accept his analysis even though much time and effort had obviously gone into his work, and his oral evidence was helpful in clarifying his approach for us. In part, we recognise that those inadequacies are not deliberate, but are a consequence of the 'longhand' way in which Mr Atherton performed his calculations (which, as we have already observed, are not based on a rigorous soil investigation) as opposed to comprehensive computer modelling with accurate data, as discussed below.
- 108. Ultimately, Mr Atherton's work cannot safely be relied upon as establishing that there is no risk of further movement of the slope; or that, if there is such risk, the Property is nonetheless not at risk of moving.
- 109. The data sheet and the force diagram at pages 540 and 542 of the bundle seek to demonstrate that the safety factors are not exceeded in relation to the loading of the rear wall of number 84. But Mr Atherton does not really know what the house and its rear wall are resting on. That is to say, he does not know (for example) the *actual* cohesion

values, the *actual* soil density, or the *actual* internal friction of the soils, because these have not been analysed.

- 110. Mr Atherton accepted that there were '*some imponderables*'. He has been driven to adopt a range of estimates. His evidence still produced outcomes which, even on his own figures, show that the safety factors were '*too low*' (1.05, and 1.15) and '*low*' (1.20). Significantly, although he was able to qualify 1.15 ('too low') and 1.2 ('low') with '*not imminent*', he was <u>not</u> able to qualify 1.05 in the same way.
- 111. We were only shown one force diagram for 84. Mr Atherton told us that he had produced a force diagram for each of the four points 'C' on the curve, but that he had only put into evidence the one which was least favourable to Miss Hopkins: i.e., with a lowest safety factor. But the difficulty is that there is an extremely large set of other potential points from which the force can be measured, which are potentially productive of outcomes where there is a safety factor of less than one. The force diagram gives only one solution of this entire set of possible outcomes. Moreover, it assumes, but without any evidence, that the backscarp is half-way below the house, under the chimney stack, rather than at some other point. Mr Atherton accepted that he had made assumptions about the location of possible slip planes, even though he said his assumptions had been made on the basis of common sense.
- 112. The data set is postulated on one set of estimated figures, but, arithmetically, even small alterations in those figures are also potentially productive of outcomes where the safety factor falls below one. The exercise conducted by Mr Atherton is therefore extremely limited in value and we do not accept it.
- 113. Mr Atherton's approach was a model. But importantly he was not modelling the stability of the slope. As a model pure and simple his approach might have been appropriate, but it is simply not suitable for the more sophisticated scenario which is present in this case, including where there is previously failed material on a steep slope, with the presence of water.
- 114. The presence of a 2m mudstone 'cliff' approximately half-way up the slope does not make any material difference to the ultimate analysis. Firstly, it disregards the two slips (identified by Mr Atherton as 'A' and 'B') which are above that cliff, and which are at their nearest barely 10 feet from the back wall of 90. Secondly, and even if the landslip identified by Mr Atherton as slip 'C' is below that cliff, the fact that the whole slope both above and below the cliff has been subject to

recent movement simply strengthens the evidence that the movements taking place are across the <u>whole slope</u>.

115. Mr Atherton sought to rely on slenderness ratios, but again we do not consider this sufficiently attuned to the actual circumstances of this property, in this location. For the sake of completeness, evidence about the slenderness ratio of other NPTC works conducted on a retaining wall along Cyfyng Road are not relevant, and we reject it.

The crack in the patio

- 116. This refers to the wide 1 to 2 inch crack which runs across the entire width of the rear patio/top level of terracing. This is a single concrete slab. The December 2017 Site Investigation report indicates that the slab is 200mm (or about 8 inches) thick.
- 117. Miss Hopkins did not produce evidence of any structural survey done when she bought the house. The valuation for mortgage purposes at page 382 of the bundle is not a building survey or condition report: see page 383 Note 1.
- 118. We accept Miss Hopkins' evidence that this crack was already present when she bought her property in the spring of 2016. It appears clearly on the photograph of her dog, taken on 20 July 2016.
- 119. But, with respect to her, the fact that it was already there in early 2016 does not really deal with the point as to what the crack means or signifies. The crack is not a design feature of the patio. It is a structural failure. It shows that there has been movement in the patio. The fact of the crack, and its location, show that there were already significant lateral and geotechnical forces at work immediately behind the rear wall of her property. Those forces broke the patio in two, across its entire width. There is no evidence that those forces no longer exist.
- 120. Mr Atherton also identifies a 50mm (2 inch) wedge-shaped tension crack at the rear of the property, between the rear wall and the patio. This suggests that the patio itself has 'rotated' away from the rear wall of the property.

The presence and movement of 'made ground'

121. Taking Miss Hopkins' Notice of Appeal at face value, she seeks to contend that the landslides were only of made ground. This is not the easiest contention to understand since the terracing of her own garden

obviously also consists of made ground. It is not clear how, that being so, she argues that the operative features in the garden of (for example) her near neighbour Mr Morrison at 86, where some made ground has moved, do not also affect her garden.

- 122. We are obliged to take a wider view. The landslides, across the whole slope, consisted of several hundred tonnes of material. We do not accept that the only ground which had moved was made ground, and not (for example) the underlying slope. Whilst it is obvious from the photographs that at least some of the ground which moved in the landslips was made ground / topsoil comprising the terracing, we reject the case that this was a superficial landslip of made-up gardens.
- 123. Photographs of the ground disturbed by the landslide show a small number (less than half a dozen) blue bags in which that earth was said to have been delivered (and which were then buried) at some point in the past. More earth was said to have been in NCB bags. But even those would account for only a very small proportion of what actually moved. Photographs of the bottom of the slope do not show the movement of made ground, but instead show the movement of mature vegetation including trees.
- 124. Made ground obviously has played *some* role; but it is not the one and only operative feature. Indeed, the fact that it has played some role was recognised by Quantum Geotechnical in their report in August 2017 who said (and we accept) that movement was 'related' to made ground, which was of 'significant thickness'. But they also state that the made ground was itself likely to have been loose, and, in combination with the weight of retaining structures, would have loaded the upper sections of the slope. As a matter of physics, that must be correct. Mr Bodycombe also accepted that there was 'quite a lot of made up ground'.
- 125. Fundamentally, there is no evidence at all that the *only* earth which moved in the landslides was made ground, and *only* made ground. Therefore, there is no evidence at all from which we can safely infer that, even if there are further movements on the slope, that the only ground which would move is made ground, leaving the underlying that is to say, the original slope intact. Further, there is nothing to suggest that, since the landslides in 2017, all movement is now over, once and for all.

The operative risk factors

- 126. We have no hesitation in finding that these landslides are about much more than the presence of made ground.
- 127. In the course of his cross-examination, Mr Atherton accepted fairly and candidly - that the following four factors (set out in the Technical Note produced by Atkins on or about 9 August 2017), as a matter of principle, all leave the surface of the slope prone to further movement:
 - (i) Over-steepening of the upper part of the slope;
 - (ii) Undermining and loss of support of garden retaining walls;
 - (iii) Washout, gullying and shallow failures due to ongoing discharge from the combined sewer;
 - (iv) Washout and gullying due to the bare erodible surface being exposed in severe weather conditions.
- 128. That is a significant concession since, as a matter of fact, all of those four features are present in this case:
 - There has been over-steepening of the upper part of the slope. The fact that this over-steepening is not (at least presently) in Miss Hopkins' garden is not relevant. Her own evidence, coming from Mr Atherton's diagram, is that slips 'A' and 'B' both affected land lying directly behind her property;
 - (ii) There has been undermining and loss of support of garden retaining walls. It does not matter that those garden retaining walls and other structures happen to be in other people's gardens. This appeal concerns the stability of this slope as a whole. There is one slope. There are not a series of separate slopes behind each and every property which have been shown to behave differently and/or which can be treated in isolation from each other. The stability of the slope, as a whole, is affected by the loss of retaining walls and other features at other points along the slope. It is already clear that failures have taken place at different places on the slope - marked by Mr Atherton as 'A', 'B', and 'C'. Regression or changes of profile or composition of the slope caused by those failures inevitably has an effect on the stability of those other parts of the slope, including those parts which have not yet moved.

- (iii) There has been washout, gullying, and shallow failures due to ongoing discharge from the combined sewer. Although this is on part of the slope which is not immediately behind 84, it is still relevant, since it is an operative factor on the slope as a whole.
- (iv) There has been washout and gullying due to the bare erodible surface being exposed in severe weather conditions. The same reasoning applies.
- 129. We accept Mr Eynon's evidence that even small changes to these variables make movement more likely than not. Moreover, we also consider that the correct approach is to look at factors in the round, and holistically, and also to recognise that one factor can affect another.

Groundwater, Surface Water, and Drainage

- 130. The presence of groundwater is a further factor. Groundwater plays an operative role, thereby contributing to an imminent risk of further landslide and movement of the rear wall of the property. The report by Quantum Geotechnical, on behalf of Welsh Water identified a number of sources of water.
- 131. In relation to 84, the summary of investigations into foul drainage provisions shows a photograph of an inspection chamber, into which the foul drain from 84 is discharging, but also into which there is a continuous flow of what appeared to be clear water from an unknown source, even though the weather conditions were dry. The water sample results showed high iron content which, it was considered, could be indicative of ground water/mine water. This water is flowing somewhere under the property.
- 132. The December 2017 report also identifies a rain water pipe soak away (marked as RWP1) to the rear of the house, which appears to discharge immediately behind the rear wall.
- 133. On or about 19 February 2018 Mr Atherton drew a plan which showed 'waterlogged ground' right to the edge of number 85, and right up to its back wall. If that waterlogged land should move, then this will change the angle and profile of the slope right next to Miss Hopkins' garden and that part of her side wall which protrudes.
- 134. We add that there is at least a real possibility that there is a mine roadway and one (and possibly two) adits or mine openings under the

slope. It cannot be put any higher than a 'real possibility' due to the difficulty of reconciling with a high degree of accuracy the Coal Authority underground plans with the over-ground Ordnance Survey.

Mr Carroll

- 135. Mr Carroll is a qualified and practising civil engineer. He is a senior works manager for rail contractors, but was very careful to make it clear that he wrote his report in a personal capacity. As we understood it, Miss Hopkins sought to adopt the position and evidence of her near-neighbours, Mr Morrison and Ms Kendall at number 86, that the cause of the landslides was a broken culvert or gully at the side of number 94, which was causing water to track across the head of the slope, saturating it.
- 136. This focuses on the evidence of Mr Roy Carroll (both contained in his 'Land slide investigation' dated 25 March 2017 and orally) that, through neglect and lack of maintenance, a culvert pipe had become blocked, causing water to track across the slope at the rear of the properties, and then to saturate the ground. As we understood it, the basic thrust of this evidence was that if that drain was fixed and/or the gully cleared and/or reinstated, then there would no further water penetration of the slope, and hence no further risk of landslide.
- 137. Mr Carroll made a further site visit on 23 November 2017, and, consistently with his earlier report, concluded that the reason for the landslip was the uncontrolled escape of water from the mountain into the highway drainage and left to run freely behind residential properties. His view was that this could easily be solved by diverting the flow into the highway system.
- 138. In his evidence, Mr Davies said that NPTC did not dispute that there were groundwater and drainage issues, but does not accept that any blocked or surcharging culvert was the *sole* cause of the landslips. NPTC accepts that uncontrolled surface water flows may have *contributed* to instability, but go on to add that there are also topographical conditions (e.g. the slope angle); geological conditions (e.g. strata type and interactions); hydrological conditions (e.g. rainwater); and hydro-geological conditions (e.g. groundwater) which are important.
- 139. We agree with these analyses and we accept them. As we have already found, a number of factors played an operative part in the 2017 landslides. In terms of water, these included the presence of naturally

occurring groundwater, the presence of groundwater concentrated along the underlying stratified geology, and the presence of groundwater from any recorded or unrecorded mine entries or surface water ingress.

140. We reject Mr Carroll's evidence on this point. Firstly, there is no evidence to substantiate the position that the *sole* cause of the landslides was water from a blocked gully or broken culvert. Man-made drainage *may* have played a part in the landslips; but it is not the only part. In short, there is no cogent evidence that *everything* which has happened has happened *only* due to water from the culvert. Secondly, we consider that the correct approach is to look at factors in the round, and holistically, and also to recognise that one factor can affect another.

Imminence

- 141. Miss Hopkins submitted that the hazards identified were not "imminent". Whether a hazard is 'imminent' or not is the crucial difference between circumstances justifying the imposition of an Emergency Prohibition Order of the kind which we are considering in this appeal, and circumstances justifying some different remedial action or order, including an Improvement Notice.
- 142. The legislation does not define 'imminent'. But as the President of the Lands Chamber of the Upper Tribunal remarked in <u>Bolton MBC v Patel</u> [2010] UKUT 334 (LC):

"As a matter of linguistic analysis, 'imminent risk' may appear to present something of a problem, since it is clear from the underlying purpose of section 40 that the risk – the chance of serious harm occurring – is, or at least may be, an existing risk. The adjective 'imminent' is obviously not there for the purpose of suggesting that the risk must be one that does not at present exist but is likely to arise soon. It is perhaps in the nature of a transferred epithet qualifying 'serious harm' – the risk must be one of serious harm being suffered soon. The degree of risk (or the likelihood, or the chance) that a state of affairs may give rise to an incidence of harm is necessarily time-related. That is why the Regulations require an inspector to assess the likelihood of harm being suffered within a specified period. The use of 'imminent' implies, in my judgment, a good chance that the harm will be suffered in the near future...."

- 143. That guidance is useful, although the context was somewhat different (being emergency remedial action under section 40), as were the facts (involving the assessment of excess cold caused by a failed boiler). In that case, the Tribunal at first instance had refused to find that the risk to health posed by excess cold was "imminent" (and therefore did not justify the taking of emergency remedial action). However, that was for a number of reasons, including that there were working portable halogen heaters in the house, and a relatively mild spell of weather.
- 144. Although in that case the Council's appeal on the point was dismissed, it is important to note that the Upper Tribunal remarked that the Tribunal's conclusions 'address the realities of the situation on a manifestly sensible basis' (see §47). This serves to emphasise that the assessment of the test of "imminence" by a fact-finding Tribunal of first instance as we are is not purely a linguistic or semantic exercise, but must take account of the realities of the situation, and the application of common sense. In turn, that is reflected in the make-up of the panel which heard this appeal a lawyer, a surveyor, and a lay member.
- 145. For reasons which we have already discussed above, we accept Mr Eynon's oral evidence the stability of the slope was quite marginal, with a high potential for things to develop and move again.
- 146. The very nature of the risk here is the fact that it could happen at any time and not necessarily with any prior warning. There were at least three slips behind the row of houses in fairly quick succession in 2017. The first of those came without any warning.
- 147. We consider that NPTC has comfortably discharged the burden placed upon it in this regard. We find that the risk of movement is an imminent one. We find that there is a good chance that the harm will be suffered in the near future. The assessment was done on 7 August 2017 and assessing the risk for 12 months. The statutory conditions for the issue and confirmation of an Emergency Prohibition Order are met.
- 148. It was argued we could deal with the question of imminence by looking at whether the Property had actually moved. In this regard, we were invited to consider the earthquake which struck South Wales on 17 February 2018 with an epicentre said to be not far from the Property, and a reported magnitude of 4.4. It was argued that because the Property did not move or collapse during or as a result of this earthquake, then we can properly conclude - as a matter of fact - that it will not do so in the future.

- 149. We do not accept this argument. Even if there has been no movement of the *property* the argument fails to engage with whether there has been any movement of the *slope*. The earthquake has not caused the operative risk factors present to disappear. Those factors are all still present.
- 150. We do not consider this changes the overall position as to the *imminence* of harm, which is the matter upon which NPTC has succeeded in persuading us. The whole of the slope including those parts which have not yet moved is inherently unstable. When it moves, there is a high risk that 84 will move as well. There has not been any stabilisation of the rear slope. There is the continued presence of ground water. The visible backscarp is about 35 feet from the rear of the house. We accept Mr Bodycombe's evidence, based on his assessment of the roof trusses in February 2018, that movement will cause failure of a structural and dangerous kind. The fact that it has not happened yet does not mean that it is never going to happen, or is not going to happen.

Risk of serious harm to health and safety

- 151. There was no real challenge by Miss Hopkins to the HHSRS scoring, which involves an assessment of risk. As we have already remarked, she did not put forward any contrary HHSRS scoring by another appropriately qualified professional.
- 152. We accept Mr Bodycombe's oral evidence that 'a loss of support will lead to a catastrophic movement. That is what I would expect to see". His letter of 28 February 2018 is consistent with this. His view was that if the rear wall of the property was to become unstable or to be lost then the roof structure would also suffer significant displacement and would put the safety of the occupiers of 84 at risk.
- 153. We accept the evidence in this Technical Note that the movement of the slope during the landslip events has affected the lateral forces at work on the rear wall, and the non-rock material beneath. If the made ground immediately at the rear of 84 moves, then the rear wall will start to act as a foundation wall. That is to say, movement of the made ground will take with it the support mechanism of the rear wall.
- 154. We accept the evidence, in that same Technical Note, that the changed pattern of forces means that settlement, sliding and rotation of the footing will be the outcome. We accept the evidence that such

settlement, sliding, and rotation will result in the rear wall being displaced. If that happens, then there is a high risk of movement and collapse.

155. NPTC has discharged the burden of proving that there is a risk of serious harm to health and safety arising from structural collapse and falling elements, and that risk is imminent, within the proper meaning and effect of the legislation.

Hygiene and Drainage

- 156. We are satisfied that this was an appropriate hazard for NPTC to have identified, and an appropriate remedial condition for NPTC to have imposed.
- 157. Whilst the drain of 84 was intact, and was transporting foul water to the sewer, that water was then discharging to the ground. A dye test showed dye placed into the drain of 84 discharging from the sewer in the rear of 85.
- 158. We recognise that Miss Hopkins has experienced difficulty in remediating this, for a variety of practical reasons. But that does not remove the fact that the drain is still not functional.

Conclusion

159. As a result of the facts and matters which are discussed above, the Order is confirmed, and the Appeal against it must be dismissed.

Dated this 23rd day of May 2018

lunhall

CHAIRMAN