Y TRIBIWNLYS EIDDO PRESWYL (CYMRU)

THE RESIDENTIAL PROPERTY TRIBUNAL (WALES)

Reference: RPT/0013/10/17

Tribunal: Dr Christopher McNall (Lawyer – Chairperson)
Mr Mark Taylor MRICS (Surveyor Member)
Mrs Carole Calvin-Thomas (Lay Member)

Appellant: Mr Thomas Rees
(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: 90-92 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 90-92 Cyfyng Road Ystalyfera, Swansea SA9 2BT.

That order remains in force without amendment.

Reasons for the Decision

Introduction

1. 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 90-92 Cyfyng Road, Ystalyfera, Swansea SA9 2BT ('**the Property'**).

2. 90-92 Cyfyng Road are two neighbouring mid-terrace houses. They were merged by Mr Rees in 2001. They lie to the east side of Cyfyng Road, and were built in the mid to late nineteenth century. They are built on a fairly steep hillside running from front to rear. So (like many of

the other houses on the terrace) they have a two-storey front elevation (onto Cyfyng Road) but (unlike many of the other houses on the terrace) they each have a four-storey rear elevation.

3. At the rear, there is a large covered decking area, supported on stilts, extending out over the rear yard. Behind the rear yard, a long rear garden slopes steeply down to the (now filled-in) Swansea canal at the bottom. Some – but not all - of the slope within the area of Mr Rees' title was terraced through the addition of extra earth ('made ground') and the construction of stone retaining walls and other retaining features. This happened especially on the upper part of the slope, nearest to the house.

4. On the night of 26/27 February 2017, there was a large landslip on the slope at the rear of the house. This was centred on number 86, which is separated from number 90 only by the width of number 88.

5. On 2 March 2017, NPTC issued a Hazard Awareness Notice.

6. On 4 April 2017, there was a further landslip. Again, this was centred on number 86.

7. On 8 June 2017, there was a further landslip – a third. This was in a different location - behind 90-92.

8. The combined effect of the three slips was that they brought the visible edge of the landslip close to the rear wall of the properties, and took away considerable proportions of their gardens.

9. The top of the landslide is 3 metres (just under 10 feet) from the rear wall of number 90, and 5.4 metres from the rear wall of number 92.

10. Even on Mr Rees' evidence, advanced through Mr Atherton, approximately half of the garden of 92 and at least three-quarters of the garden of number 90 were 'disturbed'.

11. 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.

12. The landslips have carried away a large part of the back garden of the Property. Earth, vegetation, and terracing and other reinforcing materials have all moved downhill. Behind 90 and 92, a large section of

brickwork / masonry has slumped, collapsed, and slid downhill. Two tension cracks have opened up between the rear yard of number 92 and the slope. In short, the visible lip of a major landslip, which has happened in stages, has come to within about 10 feet of the rear wall of the property, steepening an already steep slope, and exposing the subsoil to further weathering and erosion.

13. 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 accurately the volume of the earth which moved, but it appears to have been something in the order of several hundred cubic metres, which will therefore have weighed something of in the order of several hundred tonnes.

14. 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. Another effect was that a combined sewer pipe (effluent and surface water) running across the slope had been broken in two places - at either side of the landslips - although Mr Rees' sewerage (unlike that of some of the other properties) was not affected. 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.

15. 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 the rear wall of number 90 and 92 very close to the edge of the landslips.

Some general comments

16. 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.

17. We acknowledge the strength of feeling of Mr Rees, who has owned and lived at the property for a very long time, although he moved out (before the landslips) in 2016. He now has a tenant in number 92, Mr Harris, who was an interested party to this appeal, but who played no active role in it.

18. We are bound to apply the law, which means that we must look at the matter objectively. This law, set down by Parliament, places clear limits on our jurisdiction and our decision-making powers. That law does not allow us to take strength of feeling or sincerity into account in considering our decision. Nor can we take into account the length of time that someone has lived in a particular property, or factors such as the availability of alternative accommodation.

19. 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/Dwr Cymru, or indeed any other public body, to perform any particular work or works alleged to be capable of remediating the penetration or flow of water into or onto the slope.

20. Nor is this appeal an inquiry into the manner in which NPTC has dealt with the people affected by these Order. Unfortunately, a large part of the written evidence in this appeal was taken up with criticism and counter-criticism as to alleged lack of communication and transparency, which are simply not relevant to the decision which we have to make. Time and effort which could have been spent trying to identify and engage with the genuine issues was wasted.

21. Various arguments have been put forward about NPTC's actions in issuing earlier notices, and its apparent inconsistency in deciding to withdraw those earlier notices and issue the notices which are the subject matter of this appeal. Mr Rees complained that he did not understand why the structural collapse hazard initially scored at Category 2 was later re-scored at Category 1, thereby justifying the issue of an emergency prohibition order. The earlier notices are part of the background, and we do not exclude them entirely from consideration. But the only order under appeal is the one which was issued on 8 August 2017, and that is the order which we must concentrate on.

22. 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. Inevitably, some of our findings and reasons are common to all three appeals.

23. 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.

24. 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 2018.

25. In this appeal, NPTC bears the legal and evidential burden of establishing that the Order should be confirmed.

26. 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:

    26.1 That it is likelier than not that a Category 1 hazard exists; and

    26.2 That it is likelier than not that any such hazard causes an imminent risk of serious harm to the health or safety of any of the occupiers of those or any other residential premises.

27. 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 Re B (Children) (Care Proceedings: Standard of Proof) [2008] UKHL 35 and the remarks of Lord Hoffmann at Paras [2] and [13].

28. 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 occupation of the property.

29. Therefore, and recognising the practical 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

30. 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 Housing Act 2004, 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)."

31. On 7 August 2017, Mr Celvin Davies of NPTC had 'scored' those hazards using the system set down in The Housing Health and Safety Rating System (Wales) Regulations 2006: SI 2006/1702 ('**HHSRS**')

32. 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.

33. 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.

34. 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.

35. 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.

36. 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.

37. 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.

38. 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 90/92.

39. We reject the suggestion that there is something suspicious or malign in this. Mr Davies' honesty was not directly challenged in cross-examination, 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.

40. 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
22 (Falls between levels)	10515	A	1
29 (Structural Collapse and Falling Elements)	2562	B	1

41. Mr Rees has not placed before us in evidence any alternative HHSRS scoring by some other competent and qualified professional to demonstrate that different scores could or should have been arrived at.

42. 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)).

43. The two identified Category 1 hazards were:

Hazard	**Deficiencies which contributes (sic) to the hazard**
Falls between levels (Hazard 22) (meaning '*Falling between levels where the difference in levels is 300 mm or more'*)	Landslip has caused rear garden levels to change significantly, and areas to the rear of the house have broken up or fallen away
Structural collapse and falling elements (Hazard 29) (meaning '*The collapse of the whole*	Movement of ground to rear of the house has potentially affected the stability of the land on which the

or part of the dwelling or HMO')	building is situated.

44. '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".*

45. 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

46. 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.

47. 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.
Provide and fit a barrier to prevent access to the areas that have suffered collapse or movement of the ground. It should be at least 1,100mm high and designed and constructed to discourage children climbing and strong enough to support the weight of people leaning against it. There should be no openings in the guarding which would allow a 100mm sphere to pass through.

48. 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*'.

49. 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

50. The law required 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 over a month after the deadline. The Tribunal made an order on that same day, requiring Mr Rees 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 Mr Rees permission to appeal out of time.

51. The Notice of Appeal, in full, says as follows:

> *"There is no movement or damage to No 92 Cyfyng Rd. It is top soil that has slipped behind this property. Soil which I built up over the years to landscape the garden since I moved there in 1984. The Council have yet to produce survey/monitoring results, calculations of risk assessment showing the imminent risk to life and property. No survey results borehole, monitoring, structural, LIDAR (Light Detection and ranging) results, evidence of drain (?) monitoring results. What grounds is there for an EPO on No 92? Our sewerage system is also working."*

52. At the same time as giving permission for the late appeal, the Tribunal made a series of directions, including one requiring Mr Rees

'*if he accepts that there is or are any Category 1 hazards, (to serve) any evidence as to whether he 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*'.

53. Mr Rees' position in this regard remains unclear. Paragraph 68 of his statement dated 16 November 2017 suggests that fencing off the garden preventing access could have been covered through an improvement notice.

54. Otherwise, and in relation to the identified hazard of structural collapse, we have taken his position to be either that he considers that no Category 1 hazard now exists in relation to the dwelling-house; or, if it does, then an improvement notice is the most appropriate course of action.

55. 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

56. The Order, relying on *"evidence of movement to the land to the rear of the property"*, required Mr Rees 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."*

57. There is no dispute that land at the rear of the property had moved. As such, 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

58. In its letter of 24 October 2017, NPTC accepted that there were no significant signs of damage to the main building, although there was evidence of "*slight out of plumb movement to the rear wall (towards the rear)."*

59. But the factual thrust of NPTC's case is that there was physical evidence of ground movement to the garden, with parts of the rear garden being lost down the slope, which in turn has jeopardised the stability of the Property and put it at imminent risk of structural collapse.

60. This dispute largely depends on our assessment of expert evidence as to the stability of the slope, and the nature and stability of the material upon which the house rests.

61. 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.

62. 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 about the circumstances of 90-92, called *'Ground Instability to the rear of 86 Cyfyng Road and adjacent properties'*. 90-92 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.

63. 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.

64. 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'*.

65. Mr Eynon considered the slope to be unstable. We accept his evidence. The slope is unstable.

66. 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.

67. 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.

68. He visited 90/92 on 11 April 2017. His initial conclusions were set out in his letter of 9 August 2017. He had only been able to gain limited access to the property and so could not comment in detail on the structural stability and how it may be affected in the future. He noted evidence of 'slight out of plumb movement of the rear wall (towards the rear).' He did not believe that 90/92 was at as much risk as 86. He suggested some exploratory works at 88 to establish whether the foundations to the rear wall are 'supported on firm strata'.

69. His analysis was to some degree necessarily theoretical, in that he did not at that time know for sure what 90/92 or its rear wall were resting on, or the depth of any underlying bedrock. His reasoning was therefore to some degree – at least, at that time – conjectural. But latterly, and as we find, his conjectures have been vindicated.

70. 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.

71. Mr Bodycombe visited 90/92 again on 26 February 2018 to undertake an assessment of load bearing walls / span arrangements towards the rear of each property. He noted that the span of the timber joists is from mostly front to rear, and, where the joist span is from side to side, they are supported by timber trimmers that span from front to rear. He noted that the timber lintels over the window openings at the lowest level of the property had been severely affected by fire damage at some time in the past, and there is no lintel whatever supporting the stonework over the rear door leading onto the patio area. We accept his oral evidence that the absence of a rear stone keystone weakens the integrity of the rear wall. 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 all levels of flooring would suffer significant displacement. Mr Bodycombe had observed one tension crack, about 5 m from the rear wall, and considered this to be evidence of movement. We agree.

72. 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.

Mr Rees' evidence

73. Mr Rees did not give oral evidence to the Tribunal, although he was present for some of the hearings and represented throughout by Ms Richards. He filed and served a lengthy witness statement which we have read, and to which we have given full consideration. We give it appropriate weight.

74. None of the other evidence relied upon by Mr Rees 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.

75. Mr Rees 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 Mr Rees, then he 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.

76. That said, we recognise the unsuccessful efforts which Mr Rees (through Ms Richards) did make to find a structural engineer. We also take account that, in early March 2017, and again in November 2017, Mr Rees did do something by contacting his insurers. He relies on evidence written by loss adjusters. However, and for the reasons which we set out below, we do not consider that evidence assists his appeal, and we have given no weight to it.

Quadra Claims Services

77. Mr Rees relies on a letter from Simone Lynch MEng, a Loss Adjuster with Quadra Claims Services Ltd, dated 13 March 2017, which was written following a visit to number 92 on 7 March 2017. That letter is very short. It says "*I could see no evidence of damage to the house itself and believe that the engineers who attended by (sic) the Council confirmed the same. Therefore, at this time, it is unlikely there is anything your insurers can do to assist in establishing what, if any, stabilisation of the slope is possible."*

78. We give no weight to this letter. Simone Lynch was not called to give evidence, and hence could not be cross-examined about the letter, which is otherwise very short and unrevealing. But the context is important. The letter was written in relation to a potential insurance claim. Overall, and as it makes clear, the letter takes a very narrow focus. It does not really engage with the key issue, which is the stability of the slope, and how this affects or could affect the stability of the Property above the slope.

Ridge and Partners

79. Mr Yeats-Edwards, a Senior Building Surveyor from Ridge and Partners, visited 92 on 15 November 2017 and wrote an email on 16 November 2017 giving 'a brief description of his findings'. This was followed by a formal report on 30 November 2017, which concluded by declining to treat the Property as at risk and therefore refusing to recommend to Mr Rees' insurers that they meet his claim.

80. Mr Yeats-Edwards had been instructed by Mr Rees' insurers to "*assess the superstructure for evidence of structural movement".* He found some minor crack damage sustained by the internal and external

masonry walls which, in his view, had been caused by minor expansion/contraction of the masonry elements *'through a combination of seasonal thermal movement and deflection, which is commensurate for a property of this age'.*

81. He went on to observe '*We understand that there are concerns that the recent landslip events may have undermined the stability of this property. However, at the time of this inspection, I can confirm that none of the recorded crack damage/distortion can be attributed to recent landslip events'.*

82. We give no weight to this evidence. Mr Yeats-Edwards was not called to be cross-examined as to his report, his methodology, or his conclusions. Indeed, his report expressly states that it should not be used as an expert witness report.

83. The underlying difficulty with his approach is obvious from the carefully qualified 'confirmation'. He confirmed that none of the cracks which he saw were recent, and hence that none of them had come from the movement of the slope. But he neither assessed or expressed any view at all as to the condition of the slope, or whether the slope posed any ongoing risk to structural integrity. He was only looking at past and present events. He carefully excluded any consideration of what might happen in the future.

Mr Atherton

84. 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.

85. He had personally undertaken some ground investigations at 90-92, and the factual evidence which he gave about those was very helpful in giving us a fuller picture of the ground circumstances.

86. He had dug a trial pit at the rear of 92. He did not hit rock. At the base of the trial pit, he was able to hammer a 1.5m bar into the subsoil. He did not hit rock. The Property is not founded on rock. If there is rock, then it is more than 1.5 metres below the surface. Mr Atherton agreed

that the distance from the bottom of the foundations to the bedrock was 1-2m.

87. This is 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 geotechnical 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 geotechnical hazard designation may be left at Category 2…."*

88. 90/92 sits on the superficial geology which is colluvium (previously failed glacial material) and/or boulder clay and/or on made ground (perhaps C19th or C20th building in-fill).

89. None of those kinds of material are rock or stone.

90. Therefore, and taking the Atkins' analysis in its Technical Note as accurate, there is a Category 1 geotechnical risk.

91. 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.

92. The fact that there is a level of colluvium and/or top soil / made ground above underlying strata of weathered clay and gravel is consistent with the boreholes excavated in November 2017. The nearest borehole to 90/92 was at 96 (borehole BH401). That showed up to 4.2 metres of soft grey silty clay and gravelly material identified as made ground,

although it is possible that that bore hole might have passed through in-fill from the collapse of the house which earlier stood there, thereby increasing the apparent depth of made ground. But nonetheless it is clear that there is no rock near to the surface under 90/92 sufficient that it can be said that the Property rests on rock.

93. The absence of rock is consistent with Mr Atherton's finding that the subsoil was 'firm' with no evidence of groundwater. But descriptions such as 'firm', 'level' or 'dry' 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).

94. With respect to Mr Atherton, hammering an iron bar into one part of one trial pit is not an evidentially sufficient way to establish the precise nature of the underlying earth, or its stability or resistance to further movement. It is useful in giving a general impression, and in this case could have indicated (if he had been unable to hammer in a bar, for example) that the foundations were founded on rock. But, since the foundations were not founded on rock, then a more detailed analysis of the soil composition was required. We do not accept his evidence that what he did is similar to a penetrometer test. 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. The same criticisms have to be made of Mr Atherton's oral evidence was that this was an extremely stiff/hard and dense clay. Put simply, it is insufficiently scientific, and of insufficient evidential weight.

95. 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.

96. 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.

97. In other - non-observational respects - Mr Atherton's evidence was less helpful, and we reject it. 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.

98. 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. 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 not have gotten steeper after the landslide.

99. 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, in turn, were not based on a rigorous soil investigation) as opposed to comprehensive computer modelling with accurate and verifiable data, as discussed below.

100. 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, nonetheless the Property is not at risk of moving.

101. The data sheet and the force diagram at pages 484 and 485 of the bundle seek to demonstrate that the safety factors are not exceeded in relation to the loading of the rear wall. But Mr Atherton does not really know what that wall is 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.

102. Mr Atherton accepted that there were '*some imponderables'.* He has been driven to adopt a range of estimates. But, even though his evidence was that he had adopted conservative estimates, he still

produced outcomes which, even on his own figures, show that the safety factors were 'a bit low'.

103. We were only shown one force diagram for 90/92. 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 Mr Rees: 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.

104. 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 reject it.

105. 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, where the land (as Mr Atherton accepts in his own diagram) is wet, where water is acting as a lubricant, and increasing the weight of the soil.

106. 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 <u>whole slope</u> – 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>.

107. 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 is not relevant, and we reject it.

The presence and movement of 'made ground'

108. As his Notice of Appeal made clear, Mr Rees was of the view that the only ground which had moved was made ground, and not (for example) the underlying slope.

109. We reject this proposition. 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 Mr Rees' case that this was a superficial landslip of made-up gardens.

110. The landslides, across the whole slope, consisted of several hundred tonnes of material. We simply do not accept that Mr Rees had moved this much earth in creating his garden.

111. 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.

112. 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'.

113. 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

114. We have no hesitation in finding that these landslides are about much more than the presence of made ground.

115. 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.

116. That is a significant concession since, as a matter of fact, all of those four features are present in this case:

(i) There has been over-steepening of the upper part of the slope;

(ii) There has been undermining and loss of support of garden retaining walls;

(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 90/92, 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.

117. 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

118. 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.

119. On or about 19 February 2018 Mr Atherton drew a plan which showed 'waterlogged ground' right to the rear wall of 90/92, and extending for a considerable distance down the slope.

120. The bore hole under number 96 showed a slow inflow of groundwater at 4.2m – that is, at the boundary between made ground and the more competent layers of clay and gravel underneath. Water is flowing under this terrace.

121. 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.

Drainage

122. As we understood it, Mr Rees sought to adopt the position and evidence of his 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.

123. 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.

124. Mr Carroll (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) 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.

125. 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 also important.

126. 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.

127. 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.

128. Not only are there identified risk factors present and operative, over and above the presence of groundwater, but there are, in our view, others, including that the visible back of the scarp is less than 10 feet from the rear of 90.

Imminence

129. Mr Rees 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.

130. The legislation does not define 'imminent'. But as the President of the Lands Chamber of the Upper Tribunal remarked in Bolton MBC v Patel [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…."*

131. 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.

132. 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.

133. 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.

134. 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.

135. 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.

136. 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.

137. 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.

138. 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 slope is inherently unstable. When it moves, there is a high risk that 90/92 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 less than 10 feet from the rear of the house. We accept the evidence 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

139. There was no real challenge by Mr Rees to the HHSRS scoring, which involves an assessment of risk. As we have already remarked, he did not put forward any contrary HHSRS scoring by another appropriately qualified professional.

140. 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 it is probable that all levels of flooring would suffer significant displacement which would put the safety of the occupiers of 90/92 at risk.

141. 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.

142. We accept Mr Bodycombe's oral evidence that, if the made ground immediately at the rear of 90/92 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.

143. 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 that the floor will collapse.

144. 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.

Fencing

145. We are satisfied that the fencing was an appropriate remedial condition for NPTC to have imposed designed to address the falls between levels in the rear garden.

146. We are satisfied that the condition has been complied with. Mr Rees installed 'HERAS' anti-climb fencing which is 2m high, 3.45m wide, with an 85mm aperture.

147. We do not consider that this requires any variation of the Order.

Conclusion

148. 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

CHAIRMAN