

**BEFORE THE HEARING PANEL APPOINTED ON BEHALF OF
DUNEDIN CITY COUNCIL**

Under	The Resource Management Act 1991 (the Act)
In the Matter	of an application for Resource Consent for the removal of a significant tree, T014
Between	ADAM O'BYRNE AND ANNA O'BYRNE Applicant
And	DUNEDIN CITY COUNCIL Local Authority

BRIEF OF EVIDENCE OF ROBERT AURIK

DATED 4 JULY 2025



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BRIEF OF EVIDENCE OF ROBERT AURIK

Introduction

1. My name is Walter Robert Aurik, I am a retired builder, residing in Alexandra.
2. I retired in December 2023 from my last job as a building inspector in Queenstown. However, I am a qualified Master Builder with 25 years' experience in the building industry. I have spent nine years managing a local hospital maintenance department and eight years as a building inspector for the Queenstown Lakes District Council.
3. I was engaged by Adam and Anna O'Byrne to produce a building report for the self-contained flat situated at 33 Preston Crescent. This building is adjacent to a scheduled tree, and the underlying motivation for the report was concern about potential damage caused by/in relation to that tree.
4. I understand that this report is subject to an additional information request from the Dunedin City Council. The purpose of this brief is to answer those questions.
5. I have been given a copy of the Environment Court's code of conduct for expert witnesses. Although this is not an Environment Court hearing I confirm that I have reviewed that document and confirm that this evidence has been prepared in accordance with it and that all opinions that I offer in this evidence are within my expertise. I have not omitted to refer to any relevant document or evidence except as expressly stated.

Question 1

*In your opinion how do you determine what is a moderate risk to a building?
Please provide any formula or supporting rationale used to support your
method of assessment.*

6. I have determined that a 'Moderate risk to a building' by relying on the recognised risk assessment method set out in **Appendix 1**.
7. In this case, my assessment was supported by:
 - (a) My experience as a qualified Master Builder of 25 years, 9 years as a maintenance manager and 8 years as a Team Leader building inspector for a Council.
 - (b) The rain fall information provided by Ministry for the Environment Land Environments NZ Dunedin figures which demonstrates a trending increase in extreme weather events.

Question 2

The site is sloping and it is natural for water to run downhill. The rain event in October 2024 result in Dunedin's wettest day on record. Without the presence of the tree, would the minor dwelling have avoided flood damage during this event and why?

8. In my opinion, the minor dwelling would not have flooded if the tree was not there.
9. As I discuss in my report the tree root system had lifted the ground level altering the natural slope of the ground so that it is now higher than the street. It is immediately apparent upon inspecting the site that the root system is well elevated about the ground level around the minor dwelling. In that circumstance, any excess water coming down the hill has nowhere else to go except around the minor dwelling. If the tree were removed, then drainage solutions would be available to redirect

any water that enters the property out onto the street into the stormwater network.

Question 3

The building code states that buildings should be designed to ensure surface water resulting from an event having a 2% probability of occurring annually shall not enter buildings. This design code would suggest that not all surface water can be prevented from entering a dwelling during some extreme rainfall events. The rain event in October 2024 was Dunedin's wettest day on record and it is the Panel's understanding that many drainage systems across Dunedin failed as the volume of water exceeded the capacity that the drainage systems were designed for.

- A. *Do you consider that under the Building Code, buildings and drainage systems are required to be designed to cope with rainfall events such as this?*
- B. *Is it a reasonable expectation for a landowner to have a property that does not flood when there is an extreme rainfall event.*

10. Clause E1 of the Building Code relates to Surface Water. Provision E1.3.2 requires that:

Surface water, resulting from an event having a 2% probability of occurring annually, shall not enter buildings

11. In essence, what this requires is that any rainfall event that has a 2% chance of occurring in a given year must be designed so that surface water *does not enter buildings*. On that basis, there is both a regulatory requirement and a general expectation that surface water not be allowed in residential buildings, such as the minor dwelling at 33 Preston Crescent.

Question 4

To your knowledge, has there been any Council inspection to confirm that this drainage installed/upgraded for the minor unit in 2017 was installed correctly or signed off by a drainlayer?

12. I am not a Council officer and these events occurred before the O'Byrne's owned the property. I would expect that the Council will be in a position to answer this question, if they have not done so already.

Question 5

The Insurance assessment submitted with the application does not appear to correlate the flooding with the presence of the tree, rather the assessment notes that the risk the tree poses the unit is in respect of the roof. This contradicts the comments on Page 73 of the Agenda which state "The recent weather event has clearly shown something needs to be done to prevent more damage to the dwelling with the clients insurance company raising concerns the tree roots are contributing to the drainage issues." Please clarify.

13. In my statement referred at Page 73 of the Agenda I comment on the need for work to be done to prevent further damage. Since that statement was prepared, Mr O'Byrne has sought clarification from the Project Manager, Mr Rhys Lasorsa, who was appointed by the O'Byrne's Insurer. A copy of that correspondence is enclosed with the evidence or Mr O'Byrne.
14. Mr Lasorsa's correspondence supports my view that work is required to be done in order to prevent further damage. It was for this reason that I stated that the insurance company had raised concerns that the tree roots are contributing to the drainage issues.

Question 6

Could you please identify any other methods which could resolve the drainage issues for the site and which would also avoid the Structural Root Zone (i.e. cut off drains upslope of the minor unit) etc

15. I am not a drainage expert. Mr and Mrs O'Byrne have sought opinions from two drainage companies to consider other drainage options; their conclusions are enclosed as Appendix 3 and Appendix 4. I rely on that evidence.
16. Regardless, I have significant experience in the building industry and for what it is worth, my opinion is consistent with theirs.

Question 7

In the application, cracks in the foundation are identified, especially near the base of the dwelling, and your evidence suggests that tree roots are putting pressure on the structure but note that cause of this cannot not be definitively attributed to the tree without further investigation. It is Mr Hagendorn's opinion that a root inspection is required to determine if there is any damage or risk to the foundation of the front flat. Do you agree or are there other ways that this be assessed?

17. I agree that it would be a good way to determine if there is any damage or risk of damage to the foundations. This would need to include removing the existing footpath. There is a cost to doing this and there is also a risk of damaging the root system.

Question 8

In your opinion, what is the critical risk arising from the cracking and over what timeframe.

18. The critical risk would include structural failure rendering the building unsafe. It is really difficult to put a time frame on this when you only have a really short history. Could be 4 to 5 years or 10 to 15 years. To provide

a more accurate assessment a root inspection would be required, which could damage the root system.

Question 9

With regard to the “Off Level bedroom wall” noted on Page 72 of the Agenda, how does this compare with the rest of the dwelling away from the area where the tree is located.

19. I did not check the rest of the dwelling away from the area that is being affected by the tree because it was not relevant to my engagement on the present issue.

Question 10

The garage appears to have been built in 1943 and extended in 1979. Would it be typical to have some degree of “off level” walls in a structure built around this time?

20. To be able to comment on this I would need to know who did the building work, what the ground conditions are, what construction methods were used.
21. However, based on the damage to the path beside the building it is highly likely to be the root system causing it to be off plumb.

Question 11

You note on Page 73 of the Agenda that there is considerable cost to the owner of the property to repair the damage to the dwelling and mitigate the ongoing risks from the tree and that these costs cannot be reasonably passed onto the owners. Could you please explain why you have formed this view?

22. I based this on my experience and knowledge of building costs, that it is a domestic house property, that repairing without addressing the cause is not a satisfactory solution, high cost of maintaining the tree or mitigating the ongoing risks from the tree, previous owners have not been held accountable for maintaining the tree.

Dated 4 July 2025

Robert Aurik

Appendix 1: Risk Matrix

Appendix 2: Risk Matrix

TASK / LOCATION / EQUIPMENT DESCRIPTION			Risk of the dwelling flooding							
ASSESSED BY			Robert Aurik				DATE		13 th Dec 2024	
TASK STEP	HAZARDS / RISKS	L(I)	C(I)	R(I)	CONTROLS	L(R))	C(R))	R(R))	PERSON RESPONSIBLE	
1. Water entering the dwelling	Rain event up to 50mm in one day	2	1	1						
2. Water entering the dwelling	Rain event 51mm to 80mm in one day	3	2	6						
3. Water entering the dwelling	Rain event 81mm to 100mm in one day	3	3	9						
4. Water entering the dwelling	Rain event 101mm + in one day	4	3	12						

Risk Matrix		Consequences				
		Negligible (1) No flooding	Minor (2) Minor flooding 0 to 50mm of water entering the dwelling	Significant (3) Moderate flooding 50 to 100mm of water entering the dwelling	Severe (4) Serious flooding 100 to 300 mm of water entering the dwelling	Catastrophic (5) Major flooding destroying dwelling
Likelihood	Certain (5) 100% likely / almost 100% likely	Moderate (5)	High (10)	High (15)	Catastrophic (20)	Catastrophic (25)
	Likely (4) Will probably happen / is likely to happen	Moderate (4)	Moderate (8)	High (12)	Catastrophic (16)	Catastrophic (20)
	Possible (3) Could happen or plausible	Low (3)	Moderate (6)	Moderate (9)	High (12)	High (15)
	Unlikely (2) Improbable but could happen / not expected	Low (2)	Moderate (4)	Moderate (6)	Moderate (8)	High (10)
	Very Unlikely (1) Rare / not expected but remotely possible	Low (1)	Low (2)	Low (3)	Moderate (4)	Moderate (5)

Key

L(I)	Likelihood
C(I)	Consequence
R(I)	Level of Risk