

BEFORE THE HEARING PANEL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of a Notice of Requirement to alter a designation for the
HCC Central City Reservoir – Ruakiwi Road

**STATEMENT OF EVIDENCE OF JOHN KINROSS MCKENSEY ON BEHALF OF
HAMILTON CITY COUNCIL AS REQUIRING AUTHORITY**

(Lighting)

Dated 19 December 2025

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INTRODUCTION

1. My full name is John Kinross Mckensey.
2. I am employed as an Executive Engineer by Leading Design Professionals Ltd (**LDP**).
3. I hold a Bachelor of Engineering (Electrical) degree from the Queensland Institute of Technology. I have completed the Consulting Engineering Practice and Management programme at the University of Melbourne.
4. I am a member of several relevant associations including:
 - a) Member, Illuminating Engineering Society of Australia and New Zealand (MIES);
 - b) Chartered Member of Engineering New Zealand (CMEngNZ);
 - c) Chartered Member of the Institution of Engineers Australia (MIE Aust);
 - d) Chartered Professional Engineer Australia (CPEng Aust);
 - e) National Engineers Register, Australia (NER);
 - f) APEC Engineer;
 - g) International Professional Engineer, Australia (IntPE);
 - h) Member of the Resource Management Law Association; and
 - i) Member of the International Dark Sky Association.
5. I have over 40 years' experience in lighting design, providing consultancy

services for a wide range of clients including local authorities, developers, road controlling authorities and infrastructure sectors. My experience includes:

- a) Lighting advisor to Auckland Council during the Proposed Auckland Unitary Plan process;
 - b) Lighting advisor to Christchurch City Council during the Replacement District Plan process;
 - c) Author or co-author of five local government codes of practice with respect to exterior lighting, each containing environmental considerations;
 - d) Author of the Auckland Council Sportsfield Lighting Guidelines;
 - e) Lighting advisor to Auckland Transport; and
 - f) Lighting advisor to Waka Kotahi NZ Transport Agency.
6. Examples of façade and structure lighting design projects I have undertaken include:

- a) Gateway Bridge Arches, Christchurch (Figure 1)



Figure 1. Christchurch Gateway Bridge

- b) Parliament Building, Wellington (Figure 2)



Figure 2. Wellington Parliament Building

c) Auckland Town Hall (Figure 3)



Figure 3. Auckland Town Hall

7. I also have over 20 years' experience advising as to environmental lighting effects. I have provided consultancy services for private client applicants and local government regarding the assessment of lighting effects for a wide variety of activities and have previous experience in designing lighting to manage effects on the New Zealand long-tailed bat (**LTB**).

8. I have prepared lighting assessment of effects for exterior lighting installations for the following local projects:
 - a) Lighting advice to Hamilton City Council (**HCC**) to inform Plan Change 5 related to the Peacocke Structure Plan Area, and Plan Change 9 related to Historic Heritage and Natural Environment. Both plan changes included consideration of the effects of lighting on residents, motorists and the LTB; and
 - b) Lighting advice to Titanium Park Ltd & Rukuhia Properties Ltd (**TPL/RPL**) as applicant, to inform Private Plan Change 20 to the Waipa District Plan, related to the Northern Precinct adjacent Hamilton Airport, which included consideration of the effects of lighting on residents, motorists and the LTB.

9. I provide this evidence on behalf of HCC as the Requiring Authority (**RA**) which has issued the Notice of Requirement (**NOR**) for the Central City Reservoir – Ruakiwi Road (**Reservoir Project**).

CODE OF CONDUCT

10. I am familiar with the Code of Conduct for Expert Witnesses (Environment Court Practice Note 2023) and although I note this is a Council hearing, I agree to comply with this code. The evidence I will present is within my area of expertise, except where I state that I am relying on information provided by another party. I have not knowingly omitted facts or information that might alter or detract from opinions I express.

SCOPE OF EVIDENCE

11. I provide a technical analysis of anticipated effects and possible mitigation, respond to matters raised in submissions and recommend consent

conditions.

EXECUTIVE SUMMARY

12. The exterior lighting will be the practical minimum for safe use and to enhance the proposed iconic features of the artistically rendered Corten façade screens fronting the proposed reservoirs.
13. It will be appropriately designed to ensure compliance with the Hamilton City Operative District Plan and will satisfy the relevant recommendations contained in AS/NZS 4282:2023 (Control of the obtrusive effects of outdoor lighting) and the Department of Conservation Interim Advice Note - Steps to take to reduce the impact/ effect of artificial light on pekapeka (bats): Version 1: 19 August 2025 (**DOC Advice Note**).
14. Lighting effects will be further mitigated through the use of a warm colour temperature (2700K), time control or motion sensor control with short duration timer.
15. I have reviewed submissions and responded confirming that the matters raised have been adequately considered and addressed, consistent with the DOC Advice Note.
16. I have reviewed the s 42A report and note that there are some matters of detail recommended by the lighting specialist. I agree with proposed dimming and grazing optics, but disagree with shortening the movement detection timer and removal of lighting to an outdoor workspace. The lighting conditions have been amended accordingly.
17. I have proposed conditions that will ensure that effects will be adequately mitigated. These conditions have been incorporated into the condition set appended to Mr Dawson's planning evidence.

ANALYSIS

TECHNICAL REPORT

18. I prepared a technical report dated 14/10/2025 and titled “Ruakiwi Road Reservoir Development – Resource Consent – Lighting – Effects Assessment” (**Lighting Report**).

Ruakiwi Road Reservoirs and Valve Room

19. The lighting proposed to be installed on the subject site will be the practical minimum for safe use and to enhance the proposed Corten façade screens fronting the proposed Reservoirs.
20. In keeping with New Zealand national Crime Prevention Through Environmental Design (CPTED) guidelines, lighting will not be provided for the raised path behind the Reservoirs, the walkway link to the lake, nor the public space fronting the Reservoirs.
21. I concluded that the exterior lighting will satisfy the permitted activity limits in the District Plan and any relevant recommended limits stated in AS/NZS 4282 (Control of the obtrusive effects of outdoor lighting).
22. DOC has produced an Interim Advice Note entitled “Steps to take to reduce the impact/ effect of artificial light on pekapeka (bats): Version 1: 19 August 2025”. I concluded that the exterior lighting will satisfy the understood intent of the DOC Advice Note.
23. Clarifying that statement, the lighting will fully satisfy the DOC Advice Note with one exception. One of the stated management actions is “Do not illuminate facades of buildings that are close to important bat habitat”.

24. While I propose that the street-facing façade of the Reservoirs be lit, unlike typical building façade lighting it will be downward facing. It will also be a bat-friendly warm colour temperature (2700K) and will not be present on the rear of the Reservoirs (being the face closest to the bat habitat). Hence, any contribution to light pollution with respect to the bat habitat will be negligible.
25. The façade lighting will occur opposite a residential area and could therefore reduce nighttime amenity. However, given the nature of the lighting (downward facing and warm colour temperature), the proposed curfew time limit and the fact that it is adjacent to a well-lit arterial road, I consider that amenity effects will be suitably mitigated.
26. Functional maintenance lighting will be provided for the open space between the Corten screen and the Reservoir wall. It will have a warm colour (2700K), be downward facing and be controlled by motion sensors with a short (up to 5-minutes) timer as well as a master override switch to completely turn off when the lighting is not required.

Report Conclusions

27. I concluded that the proposed lighting at the Reservoirs will have no more than moderate effects – i.e. the adverse effects will be no more than minor.

SUBMISSIONS

Department of Conservation – Ronan Whitelock

28. The submission recommends specific lighting controls to manage the effect of light on bats.
29. The Lighting Report includes a range of measures to afford protection for

the LTB. The proposed conditions of the designation reflect the recommendations made in the Lighting Report, consistent with the DOC Advice Note.

SECTION 42A REPORT

30. The s 42A report references and includes a technical memo from Martin Granese, which addresses outdoor lighting.
31. Mr Granese proposes a number of design clarifications/adjustments including;
 - a) Ability to dim the decorative lighting;
 - b) Using grazing light for the decorative lighting with minimal forward throw;
 - c) Consider limiting outdoor functional lighting to entry/egress areas;
and
 - d) Consider reducing the proposed 5 minute timer to 2 minutes.
32. I agree with the first two items and the draft conditions have been adjusted to include them.
33. I have a different view for the third item. Maintenance staff will need light for safe access in the open space behind the screen wall when they are using the space. Hence, the lighting is required as stated in the Lighting Report. However, as stated, it will be only activated when needed.
34. I also have a different view for the fourth item, it is my view that the presently proposed 5 minute timer is appropriate for the nature of

expected activities.

PROPOSED CONDITONS

35. I have advised upon and reviewed the lighting provisions in the draft set of conditions as currently attached the evidence of Chris Dawson (Planning). Amendments have been made to address certain items raised in the s 42A report, as noted at paragraphs 30-31. I am satisfied that with the proposed amendments added, the conditions suitably address potential lighting effects.

CONCLUSIONS AND RECOMMENDATIONS

36. No adjustments are proposed to the conditions in relation to the submissions. However, the RA's draft conditions appended to Mr Dawson's evidence, have been amended as noted at paragraphs 30-31 and 35, to address matters raised in the s 42A report, are sufficient in my view to satisfactorily mitigate lighting effects.

John Kinross Mckensey

19 December 2025