Appendix G – Brent Henry - Bats

Before the Fast-track Panel

Under:	The Fast-track Approvals Act 2024
In the matter of:	Beachlands South Development, Auckland

Statement of advice

Brent Henry

Bat Ecology

Independent Consultant

22 October 2026

Department of Conservation
Te Papa Atawhai

Te Kāwanatanga o Aotearoa
New Zealand Government

Introduction

1. My full name is Brent Henry.

Instruction

2. I am providing expert advice on behalf of the Department of Conservation (DOC) on the Beachlands South Project – Fast-track application, in relation to bats.

Qualification and Experience

3. I am an Associate Principal Ecologist with Wildland Consultants Limited. I have 14 years of experience working as a consultant. My qualifications include:
    i. Masters of Natural Resource Development, Texas A&M University (2013).
    ii. Bachelor of Arts (Environmental Studies), The Evergreen State College (2010).
    iii. Department of Conservation Bat Recovery Group competencies (BHC 0073).
4. Prior to working in New Zealand, I worked several seasons across a range of habitat types across several states in the United States of America in the following roles:

i. Ecologist, Ecological Solutions Inc., Atlanta, Georgia, USA (2014-2018).

ii. Environmental Specialist, SWCA Environmental Consultants, Houston, Texas, USA (2012-2014).

5. This work included mist-netting, acoustic recording, habitat assessments, cave surveys, bridge surveys, data collection, radio telemetry to locate roost trees, emergence counts at roost trees, banding, placement of radio transponders, and identification and handling.
6. Since working in New Zealand, I have applied a range of survey techniques including Acoustic Bat Monitor (ABM) deployment and analysis, placement of harp traps, handling, banding, radio-tracking to locate roost trees, and roost emergence counts.
7. I have also provided ecological advice regarding bats to numerous projects, including surveys and monitoring, ecological impact assessments (EcIA) and ecological management plans. Recent projects I have worked on that are relevant to this proposal include:
    i. Expert peer reviewer of bat effects for EPA Panel, Cambridge to Piarere Highway Fast-track Application, 2025.
    ii. Expert peer reviewer of bat effects for EPA Panel, Carterton Harmony Energy Solar Farm Fast-track Application, 2024.
    iii. Expert peer reviewer of bat effects for EPA Panel, Kings Quarry Fast-track application, 2024.
    iv. Review of annual Waikato Expressway bat monitoring reporting on behalf of Waikato Regional Council.
    v. Review of annual Messenger Bypass bat monitoring reporting on behalf of New Plymouth District Council.

vi. Lead bat ecologist on numerous wind farm projects and other infrastructure projects.

vii. Lead bat ecologist for numerous development projects.

Code of conduct

8. Whilst it is acknowledged that this is not an Environment Court proceeding, I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023. I have complied with the Code of Conduct in the preparation of this advice. Unless I state otherwise, this assessment is within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Scope of advice and expert opinion

9. My expert advice will address the following matters:

i. Adequacy of the Applicant's assessment of potential indigenous bat presence and potential bat habitat within the project area, including identification of any values that have not been assessed or have been insufficiently characterised.

ii. Adequacy of the Applicant's assessment of effects on indigenous bats with specific reference to any effects that are incomplete, understated, or not addressed.

iii. Adequacy of the Applicant's proposed mitigation, rehabilitation and management measures regarding indigenous bats.

iv. Alternative mitigation or management approaches, where appropriate, including clarification of my recommended or preferred measures including where these differ from those proposed by the Applicant.

v. Comments on conditions.

Sources

10. In preparing this advice I have reviewed:

i. Attachment 12 - Ecological Impact Assessment prepared for Beachlands South Limited Partnership (Viridis 2026).

ii. Attachment 12, Appendix B - Lizard and Bat Survey Memorandum (Bioresearches 2026).

iii. Attachment 12, Appendix K - Beachlands South Fast Track Fauna Management Plan (Viridis 2026a).

iv. Attachment 0C - Draft Proposed Conditions for the Beachlands South Fast Track Application

11. A site visit was undertaken on 6 October 2026 by a colleague at Wildland Consultants Ltd, Dr Della Bennet, and I have relied on information about the site

provided by her. I also reviewed photos from this site visit and discussed those with Dr Bennet.

Executive Summary

12. Acoustic monitoring has not been comprehensive enough given the large scale of the subdivision and the potential impacts.

13. It is unclear whether the scale of the subdivision has been adequately considered with respect to effects on bats. The area is large and subject to cumulative effects, with significant changes from baseline conditions. Even if the habitat is mostly low-quality and bat use is infrequent, the overall impact may warrant a more precautionary approach to mitigation, such as providing bat boxes or implementing lighting measures.

14. It is recommended that further information is sought from the applicant to address the matters identified in this report. Based on this information, it is likely that there may be updates required to the Fauna Management Plan. In addition, further changes to conditions, or additional conditions may be required to address effects on bats and provide sufficient mitigation, and to ensure the Fauna Management Plan is implemented. This could include (but not be limited to) conditions on lighting.

Key Issues

Extent of acoustic survey effort

15. I have considered the information provided in relation to acoustic surveying.

16. Section 4.2.3. of the EcIA outlines details of a 14-night acoustic survey effort for bats undertaken by Viridis in March 2026, and a survey (of unknown length) undertaken by Tonkin & Taylor in February 2021.

17. The Lizard and Bat Survey Memorandum details additional two-night acoustic surveys that were undertaken as part of bat management during tree-felling (Bioresearches 2026). Two-night acoustic surveys are short and targeted to detect bat activity around specific trees. It is my view that the results of these are not representative of bat activity across the site, and are unlikely to detect low bat activity, or bat activity levels that increase in certain periods of the year.

18. Section 4.2.3 also refers to nearby survey records in the DOC Bat Database that have also not detected any bats, and a lack of bat detections at the Brookby Quarry during surveys undertaken between 2017 and 2024. However, long-tailed bats have been recorded at the Clevedon Scenic Reserve, approximately 8.5 kilometres away

from the site. This is well within known long-tailed bat home range extents (O'Donnell et al. 2001[1]).

19. Habitat use by long-tailed bats can vary depending on time of year; with behaviour influenced by breeding season, insect availability, and roost use.

20. For large projects that will have significant, long-term or permanent effects on the landscape, at least three survey periods that target different stages of the long-tailed bat breeding season are often required to understand how long-tailed bat activity varies temporally across a fragmented landscape.

21. The surveys undertaken at the site in February and March have only targeted one stage of long-tailed bat reproduction.

22. I consider that the evidence provided is insufficient to provide a complete understanding of potential long-tailed bat use of the site throughout the year.

23. Section 4.2.3 states that "*Although no detections were recorded, this does not entirely rule out the occasional use of the Site by long-tailed bats but suggests these habitats are unlikely to be frequently used."*

24. I agree that long-tailed bat presence should be assumed in the absence of comprehensive survey efforts. Based on the information provided, I do not consider that the position that the subject site is infrequently used can be substantiated.

25. Section 4.2.3. also describes the habitat on site as having "marginal suitability" for bats. This may be true for roosting habitat, with limited large trees that are mostly isolated. However, long-tailed bats are often found foraging across paddocks, along fragmented forest edges, above wetlands and over stock or stormwater ponds. These habitat features are all present within the site. To this end, it is unclear as to why the habitat is considered to have marginal foraging potential.

Artificial light at night

26. There is a growing body of evidence that suggests increased artificial light at night may have adverse impacts on long-tailed bats (e.g. Schamhart et al. 2024[2], Schamhart et al. 2026[3]). The potential impacts of increased artificial light at night on long-tailed bats are not thoroughly addressed in the EcIA. There is a brief mention of these effects in Section 4.2.3 (Viridis 2026a). The level of effect of lighting was stated to be low as long-tailed bats are assumed to only use the site infrequently.

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[1] O'Donnell, C.F., 2001. Home range and use of space by *Chalinolobus tuberculatus*, a temperate rainforest bat from New Zealand. *Journal of Zoology*, *253*(2), pp.253-264.
[2] Schamhart, T., Browne, C., Borkin, K.M., Ling, N., Pattemore, D.E. and Tempero, G.W., 2024. Detection rates of long-tailed bats (*Chalinolobus tuberculatus*) decline in the presence of artificial light. New Zealand Journal of Zoology, 51(2), pp.200-210.
[3] Schamhart, T., Borkin, K.M., Browne, C.M., Ling, N., Pattemore, D.E. and Tempero, G.W., 2026. Effects of nominal 2700 K amber LED with a blue cut filter and 4000 K white LED on nightly activity of light-naïve New Zealand long-tailed bats (*Chalinolobus tuberculatus*). *Mammalian Biology*, pp.1-13.

27. The area impacted will be large, the impact will be permanent, and the impact is potentially disturbing long-tailed bats, which are a Threatened – Nationally Critical species. I consider that there is insufficient information to conclude that this level of effect will be low, particularly as the survey effort at the site has not been comprehensive. Consideration should also be given to the permanence of the activity and how this influences the assessment of effects.

28. There are several easily implemented methods to reduce the impact of artificial light at night on bats. It is unclear why these have not been suggested to minimise the potential impact on bats.

Implementation of artificial bat roosts

29. Use of artificial bat roosts to increase the amount of roosting habitat available for long-tailed bats has been proven as a successful strategy in parts of New Zealand (e.g. Hamilton; Robinson 2022[4], Jonker et al. 2025[5]).

30. Section 4.6 of the Fauna Management Plan (Viridis 2026a) discusses implementation of artificial bat roosts only if bats are detected on site during pre-felling surveys, and trees with potential bat roost features are removed.

31. It is my view that pre-felling acoustic surveys are unlikely to detect infrequent or season-dependent long-tailed bat use due to the short time frame and small, targeted survey area. As such, using the results of these surveys to trigger further mitigation may not be appropriate. Installation of bat boxes should be required regardless of whether long-tailed bats are detected.

32. It is unclear if bat box installation is triggered by having a total of 10 high-risk trees removed (i.e. if only nine high-risk trees are removed, no bat boxes are required to be installed), or if it is a ratio of one bat box per every 10 trees removed, with a minimum of one bat box installed if any high-risk trees are removed.

33. It is unclear how long maintenance of the bat boxes and anti-predator bands will occur for, or if they will be required to be replaced if they are damaged or lost.

34. There is also no additional provision for if an active bat roost is confirmed during pre-felling surveys (e.g. a climbing arborist observes bats in a cavity). If a confirmed bat roost is identified, the ecological value of this habitat feature will need to be re-evaluated, and if it is removed, the impacts of removal will need to be addressed and mitigated.

35. It is important to note that replacing a natural cavity with a bat box may not be a like-for-like replacement. The cavity and the bat box are unlikely to have identical microclimates. Uptake of bat boxes in Hamilton was shown to be around 49% over

[4] Robinson, H.L., 2022. The uptake of artificial roosts by long-tailed bats (*Chalinolobus tuberculatus*) in Hamilton City (Doctoral dissertation, The University of Waikato).
[5] Jonker, M., Davies, F. and Witton, M., 2025. Bat box monitoring: comparing multiple contemporary methods. New Zealand Journal of Zoology, 52(5), pp.870-884.

two years (Jonker et al. 2025). Thus, at least two bat boxes per confirmed bat roost may be required to account for the fact that not all bat boxes will be used by long-tailed bats.

Consent conditions

36. Changes to the condition may be required to address effects on bats, provide sufficient mitigation of potential adverse effects and to ensure that minimum requirements are included in conditions, where those requirements are necessary to manage effects, rather than only being included in the Fauna Management Plan.

37. I further recommend that the Fauna Management Plan be amended to address the matters above, specifically, bat box requirements and protocol if an active bat roost is confirmed during pre-felling surveys.

38. It is also recommended that conditions of consent also include requirements in relation to lighting.