

**BEFORE THE INDEPENDENT HEARING PANEL  
APPOINTED BY HAMILTON CITY COUNCIL**

**IN THE MATTER** of the Resource Management Act 1991 (**Act**)

**AND**

**IN THE MATTER** of hearing submissions on Plan Change 5 to the Hamilton  
City District Plan

**BETWEEN** **THE ADARE COMPANY LIMITED**  
**Submitter #53**

**AND** **HAMILTON CITY COUNCIL**  
**Local authority**

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**EVIDENCE IN CHIEF OF DR SARAH FLYNN  
FOR THE ADARE COMPANY LIMITED**

**ECOLOGY -**

**16 SEPTEMBER 2022**

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## **SUMMARY OF EVIDENCE**

1. My name is Dr Sarah Flynn and I am a Senior Ecologist and Principal at Boffa Miskell Limited. I am providing evidence in relation to the overall ecology approach to PC5 and ecological compensation.
2. I summarise my evidence, according to the key headings in this statement as follows:

### **The Overall Ecological Approach to PC5**

*(Page 4)*

- (a) The main ecological effect addressed in PC5 is urbanisation and the associated loss or degradation of the habitat of long tailed bats. The principal mitigation response is expansion and creation of revegetated bat habitat corridors (“SBHAs”). I Agree with this overall approach.
- (b) I consider that there are flaws in the methods proposed to achieve the habitat enhancement that is required to make the corridors functional. Specifically, case-by-case evaluations of individual properties to calculate financial contribution requirements which would be used to fund habitat restoration and enhancement measures creates uncertainty for both Council and landowners, and may not generate sufficient funds to undertake the work required, while neither the responsibility or process for using the funds acquired to implement ecological enhancements necessary to address identified ecological effects is specified.

### **Evaluation of Ecological Compensation**

*(Page 6)*

- (c) A biodiversity compensation accounting model (BCM) was used to estimate the quantum of land required for restoration and enhancement of habitat values to ensure the type and scale of habitat restoration and enhancement proposed is commensurate with the value and magnitude of effects.
- (d) I consider that reliance on BCM calculations to compensate for uncertainty, without seeking to address risk through planning mechanisms, has resulted in a larger than necessary compensation package which may in fact impede effective implementation of ‘primary’ mitigation measures within the PCPA.

- (e) PC5 may produce an uncoordinated and piecemeal approach to the vesting and enhancement of SBHAs, which creates a risk that development will substantially outstrip implementation of effective mitigation measures.
- (f) The lag between urbanisation and habitat enhancement should be minimised as far as possible to safeguard the bat population as the surrounding landscape is progressively urbanised.

### **Recommendations**

- (g) I agree that the PC5 policy framework with respect to long-tailed at habitat management should be part of a City-wide approach that is proactive, coordinated and expert led.
- (h) I consider that vesting and enhancement of SBHAs must be the primary focus of ecological effects management in the PSPA, and that landowner contributions can be calculated on a 'per area' basis as a proportion of the total cost of implementation. This method would de-risk the project and enable coordinated forward planning, reducing the overall quantum of compensation required.

## **INTRODUCTION**

3. My full name is Sarah Megan Flynn. I am a Senior Ecologist and Principal at Boffa Miskell Limited, a national firm of consulting planners, ecologists, and landscape architects.
4. I hold the qualifications of BSc (1993), MSc (1st class Hons) in Botany (1995), and PhD in Environmental Science (2011) from the University of Auckland, New Zealand. My particular areas of expertise are in botany and forest ecology. I have more than 25 years' experience as a consultant in ecology and resource management and have undertaken work for a wide range of clients around New Zealand, including local authorities, land developers, infrastructure and power sectors.
5. Such work has included district-wide surveys to identify "Significant Natural Areas", evaluation of the ecological significance of ecological features on private property, and assessment of ecological effects of subdivision and consequent development. I have been responsible for developing management plans for the maintenance and enhancement of natural areas and ecological features in reserves and private properties throughout New Zealand.
6. I have undertaken a variety of projects pertaining to ecosystem restoration and management, and provision of ecology-related strategic and policy advice. I am an experienced expert witness and have presented evidence in numerous council and Environment Court hearings.

## **CODE OF CONDUCT**

7. I have read the Environment Court Code of Conduct for expert witnesses and agree to comply with it.
8. I confirm that the topics and opinions addressed in this statement are within my area of expertise except where I state that I have relied on the evidence of other persons. I have not omitted to consider materials or facts known to me that might alter or detract from the opinions I have expressed.

## SCOPE OF EVIDENCE

9. I have been engaged by The Adare Company Limited (**Adare**) to provide independent expert evidence on ecological matters. The focus of my brief is on the overall ecological approach taken by Plan Change 5 (**PC5**).
10. While the focus of this evidence is on how potential adverse effects on long-tailed bats are managed, that does not mean that there are not other habitats and species that warrant attention in Peacocke. Rather, it is recognition that long-tailed bats are critically threatened native fauna and are an “umbrella” species (meaning that protection of long-tailed bat habitat will likely provide ecological benefit for many other species).
11. This evidence is structured as follows:
  - (a) The overall ecological approach to PC5;
  - (b) Evaluation of ecological compensation;
  - (c) Proposed alternative approach;
  - (d) Conclusion.

## THE OVERALL ECOLOGICAL APPROACH TO PC5

12. The main focus of ecological effects in PC5 concern urbanisation and the associated loss or degradation of the habitat of long tailed bats. These effects include losses of trees, shelterbelts and other features that bats may use for roosting or navigation, along with areas of adjacent pasture they are likely to forage in; and urbanisation of the pastoral landscape which will create an inhospitable environment that bats will be deterred from using.
13. The principal mitigation response of PC5 to this effect is expansion and creation of revegetated bat habitat corridors (**Significant Bat Habitat Areas** or **SBHAs**) through an increase in the Natural Open Space Zone from (16 hectares to 143 hectares), along with an increase in the area of Significant Natural Areas (**SNAs**). Provisions are also proposed to minimise effects on SBHAs, including through lighting controls and building setbacks.

14. I generally agree that protection and enhancement of habitat corridors offers the best chance of maintaining a bat population in and around the Peacocke Structure Plan Area (**PSPA**) as it is urbanised. My central criticism of PC5 is with the means proposed to achieve the habitat enhancement required to make the corridors functional, which I consider is a serious weakness of the plan as currently proposed.
15. PC5 anticipates that development will drive the revegetation of SBHAs in accordance with habitat enhancement design set out in the ERMP<sup>1</sup>. The consent process is expected to require compensation to restore / enhance habitat values where the effects assessment for a proposal identifies adverse ecological effects on bats.
16. The s.42a report (para 6.11) notes that the core “response mechanisms” are requirements around ecological evaluation prior to any removal of vegetation. Specifically, all subdivision applications within the Peacocke Structure Plan adjoining or including any open space zone or involving more than two hectares 5,000m<sup>2</sup> of land<sup>2</sup> are required to prepare an Ecological Assessment and Rehabilitation Management Plan (**ERMP**) as part of the resource consent application. The objective of the ERMP is to “*assess and enhance ecological values within the site*” (my emphasis), including measures to avoid, remedy, mitigate, offset or compensate for any significant effects. This evaluation will result in compensation to enhance bat habitat only if significant adverse effects on bats are identified at site level, which is unlikely to be the case for much of the pastoral land within the PSPA.
17. I note that the ERMP is also required to include (commensurate with the ecological values found on the site) “*the establishment and enhancement of identified SBHAs as identified within the Peacocke Structure Plan*”. Presumably this means that landowners whose properties happen to adjoin an SBHA are responsible for its restoration. I understand<sup>3</sup> that Council has signalled its intention to purchase SBHAs from landowners at

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<sup>1</sup> Appendix 1 ERMP provisions, as referenced in Appendix-D-Amendments-in-Response-to-the-Long-Tailed-Bat-Protection-Topic.pdf

<sup>2</sup> Appendix 1 ERMP provisions, as referenced in Appendix-D-Amendments-in-Response-to-the-Long-Tailed-Bat-Protection-Topic.pdf

<sup>3</sup> Hamilton CC PC5 – JWS Planning & Bats 24 Aug 2022

“fair market value”, likely at the time of subdivision, however I am concerned that the requirement for these landowners to both design and implement the SBHA enhancement in order to obtain subdivision consent imposes a disproportionate burden on these properties and may inhibit or delay their development relative to other properties.

18. Under the Council’s provisions<sup>4</sup>, a proposal that requires a >15cm DBH tree to be removed must provide a Bat Management Plan. The BMP must include *“proposals for the provision of a financial contribution as a means to provide off-site compensation for the adverse bat habitat effects generated by the application that are not being compensated for within the site.”* The applicant is to develop a model to calculate the financial contribution proposal, which is to be generally in accordance with the Council’s own “biodiversity compensation model”.
19. Dr Baber further identifies<sup>5</sup> that many small developments would have unquantified, cumulative ecological effects that would not generate any compensation response under currently proposed provisions. Dr Baber proposes the use of the biodiversity compensation accounting model (**BCM**) - (or similar) - tool to calculate financial contribution requirements which would be used to fund habitat restoration and enhancement measures.
20. While I agree that these provisions will assist in providing some funding for ecological enhancement, the quantum achieved through the mechanisms proposed is uncertain, relying as they do on case-by-case evaluations. Furthermore, the responsibility and process for using the funds acquired to implement ecological enhancements necessary to address identified ecological effects is not specified.

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<sup>4</sup> 1.2.2.27 Bat Management Plan as referenced in Appendix-D-Amendments-in-Response-to-the-Long-Tailed-Bat-Protection-Topic.pdf

<sup>5</sup> Statement of Evidence of Matthew James Baber (Ecology – Offsetting/Compensation), 2 September 2022, at [42].

## EVALUATION OF ECOLOGICAL COMPENSATION

21. The background documents for PC5 includes a preliminary assessment of ecological effects,<sup>6</sup> which estimates the quantum of land required for restoration and enhancement of habitat values using a BCM. The BCM incorporates considerations such as time lag before the habitat restoration / enhancement measures are in place. As explained in Dr Baber's evidence),<sup>7</sup> the BCM was intended as a 'sense check' to ensure the type and scale of habitat restoration and enhancement proposed is commensurate with the value and magnitude of effects.
22. I understand the intent of the BCM is to ensure that the compensation proposed achieves a No Net Loss / Net Gain standard. To this end, as Dr Baber's evidence explains,<sup>8</sup> multipliers were used to address all instances where values or risks may have been underestimated.
23. The limitation of this evaluation approach is that it does not address practical considerations around implementation. Instead of identifying a need to reduce uncertainty and time lag through planning mechanisms, the model simply increases the quantum of compensation required.
24. I consider that the use of multipliers in this way may perversely result in increasing the disconnection between 'on the ground' compensation measures. Mr Sirl notes<sup>9</sup> that a range of initiatives will play a role in addressing the ecological issues identified in PC5, which I understand include initiatives outside of the PSPA. Hence, funds generated through financial contribution calculations outlined above may be directed to any number of projects in a piecemeal fashion, and provide no certainty that the 'primary' mitigation (SBHA enhancement) will be implemented.
25. As Mr Blayney explains<sup>10</sup>, an uncoordinated and piecemeal approach to implementation of SBHA enhancement is unlikely to achieve optimal outcomes (at least in the short to medium term), and creates a risk that

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<sup>6</sup> PC5 supporting documents, Appendix K – Preliminary Assessment of Ecological Effects.

<sup>7</sup> Statement of Evidence of Matthew James Baber (Ecology – Offsetting/Compensation), 2 September 2022, at [20].

<sup>8</sup> Statement of Evidence of Matthew James Baber (Ecology – Offsetting/Compensation), 2 September 2022, at [33(c)].

<sup>9</sup> Statement of Evidence of Jamie Sirl (Planning), at [48]

<sup>10</sup> Statement of Evidence of Andrew Blayney at [26 – 27].



development will substantially outstrip implementation of effective mitigation measures, resulting in significant adverse effects on bats. The lag between urbanisation and habitat enhancement should be minimised as far as possible to safeguard the bat population as the surrounding landscape is progressively urbanised.

26. I agree with Mr Blayney<sup>11</sup> that reliance on case-by-case ecological effects assessments to determine compensation requirements creates considerable uncertainty that corridors would be fully completed. In particular, I consider that ecological effects assessments undertaken at a site scale for development of properties throughout large parts of the PSPA will likely find low or very low levels of ecological effects, and may generate substantially lower compensation requirements than the output valuation of the BCM. This is because a large proportion of the required “compensation quantum” is derived from loss of open pasture (low value habitat) and woody vegetation that (as it stands) can be removed without consent prior to development if it is outside of an SNA or SBHA.

#### **PROPOSED ALTERNATIVE APPROACH**

27. Mr Collins<sup>12</sup> sets out and explains the need for a policy framework for PC5 with respect to long-tailed habitat management that sits within a broader, City-wide approach, and is proactive, coordinated and expert led. I agree with his rationale and recommendations. In particular, I agree that Council should not, and need not, wait for subdivision processes to accept SBHAs as reserves (or indeed, to facilitate enhancement planting).
28. I consider that as proposed, the PC5 is over-reliant on the use of BCM models to determine the obligations of landowners with respect to addressing ecological effects. Evaluated at a landscape scale, all enhancement work undertaken within the SBHAs is mitigation (not compensation), as its purpose is to reduce the severity of effects of the proposed urbanisation on bats. Vesting and enhancement of SBHAs must be the primary focus of ecological effects management.

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<sup>11</sup> Statement of Evidence of Andrew Blayney, at [26].

<sup>12</sup> Statement of Evidence of Andrew Collins, at [31 – 45]

29. In this context, the contribution of each landowner can be calculated on a 'per area' basis as a proportion of the total cost of implementation, indexed to inflation and allowing a contingency to cover cost variances. From an ecological perspective, this method would offer equity and certainty around costs (for landowners) and funding (for Council), which would de-risk the project and enable coordinated forward planning for all parties.
30. A clear benefit of Council providing simple metrics for financial contributions, and coordinating a proactive approach to implementation of habitat enhancement within SBHAs as Mr Collins suggests, is that risks associated with time lag and uncertainty would greatly reduce, so the overall quantum of compensation required would be lower.
31. While some residual risk is likely to remain and may be appropriately dealt with through off-site compensatory measures, these values should be calculated and dealt with separately from the SBHAs.
32. In the same vein, the Bat Management Plan and ERMP requirements cover effects already anticipated and addressed through vesting and enhancement of the SBHAs. PC5 provisions need to make clear that these plans are intended to address only residual effects not addressed in the SBHAs. PC5 also needs to be explicit about which effects are addressed through SBHAs, and what constitutes residual effects.
33. Mr Sirl<sup>13</sup> identifies the extent of recommended compensation identified by HCC's ecological experts as beyond the capability of the District Plan to deliver, and notes "*a multiagency, intergenerational approach*" would be required to do so. I do not regard this as consistent with RMA requirements to address adverse effects. Certainly, an "intergenerational approach" to compensation is unlikely to be responsive enough to ensure the viability of the bat population within the PSPA. However, as I have discussed, there are a variety of steps Council could take to manage risk that would reduce the scope of compensation required, such that I anticipate mitigating effects on bats within the PSPA would be well within the capability of the District Plan.

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<sup>13</sup> Statement of Evidence of Jamie Sirl (Planning), at [48]

## CONCLUSION

34. I endorse the establishment of SBHAs as a method to maintain a bat population in and around the PSPA as it is urbanised. I consider the proposed approach to achieving the outcome envisaged is not robust or transparent, does not clearly prioritise enhancement of SBHAs as the primary focus of ecological effects management, and heightens the risk that effects will not be adequately addressed. However, all the limitations I have identified can be resolved through proactive Council leadership and a simplified approach to determining landowner contributions to SBHA enhancement. In my opinion, mitigating effects on bats within the PSPA is well within the capability of the District Plan.

**Dated this 16<sup>th</sup> of September 2022**



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**Dr Sarah Flynn**