## Technical Specialist Memo – Terrestrial Ecology

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| To: | Warwick Pascoe – Premium Project Lead<br>Celia Wong – Senior Planner, Resource Consents<br>Louise Barclay & Jo Hart – Senior Planner, Notices of Requirement |
| From: | Rue Statham |
| Qualifications & Relevant Experience: | Rupert Edward George Statham (Rue Statham) and I am a Senior Ecologist for Auckland Council. have worked at Council for over 20 years I have held this current role for seven years; I have over 30 years of experience in countryside, environmental and conservation management.<br>I am a warranted Auckland Council (Council) enforcement officer pursuant to sections17(3), 22, 38, 322, 328, 332, 333 and 343C of the Resource Management Act 1991 (RMA).<br>I hold a Bachelor of Science in Earth and Environmental Sciences (Hons), which I received in the United Kingdom (UK). I also received the British Technical Enterprise Council qualification in Arboriculture. Auckland Council Stream Ecological Valuation (SEV) training (2011); and "Making Good Decisions Program – certification for RMA decision makers" (certified 2018 and recertified 2021).<br>My role is primarily focused on ecological peer-reviews, surveys and providing independent expert opinion on terrestrial resource consent applications. I provide expert advice on strategy and policy in the formulation and implementation of the Auckland Unitary Plan - Operative in Part) (AUP(OP)).<br>I also provided expert input into the Auckland Council submissions to National Policy on freshwater and terrestrial biodiversity. Most recently I have provided expert advice in the preparation of the RMA s35 Monitoring Reports for Chapters B7, E3 and E15 of the AUP(OP), on terrestrial and indigenous biodiversity.<br>I have prepared expert evidence and technical assessments for resource consent applications, policy, plan changes, notices of requirement for designation and fast-track applications, and have appeared as an expert witness before consent authorities and the Environment Court on multiple occasions. I was in the steering group for Waka Kotahi, the NZ Transport Agency, 2022 publication, Road edge-effects on ecosystems. |
| Preparation in Accordance with the Code of Conduct: | I confirm that I have read the Environment Court Practice Note 2023 – Code of Conduct for Expert Witnesses (**Code**) and have complied with it in the preparation of this memorandum. I also agree to follow the Code when participating in any subsequent processes, such as expert conferences, directed by the Panel. I confirm that the opinions I have expressed are within my area of expertise and are my own, except where I have stated that I am relying on the work or evidence of others, which I have specified. |
| Date: | 13/05/2026 |

## 1.0 APPLICATION DESCRIPTION

**Application and property details**

Fast-Track project name:

North-West Rapid Transit

Fast-Track application number:

FTAA-2511-1146

**Council Resource Consent References (RC):**

BUN60461580
LUC60461581
DIS60461582 (contamination)
CST60461583 (structures)
CST60461584 (disturbance of seabed (other))
CST60461585 (veg removal)
WAT60461586 (groundwater)
LUS60461587 (structure)
LUS60461588 (works)

**Notice(s) of Requirement (NoR)**

| NOR number | Description |
|---|---|
| **NoR 1** | Busway between Brigham Creek Rarawaru station and north of Westgate Te Waiarohia station (including stations, Park and Ride and all local road connections) |
| **NoR 2** | Busway between north of Westgate Te Waiarohia station and north of Royal Road Mānutewhau station (including stations, Park and Ride and all local road connections) |
| **NoR 3** | Busway between Royal Road Mānutewhau Station and Te Whau River (including all stations and local road connections) |
| **NoR 4** | Brigham Creek Rarawaru station including Park and Ride |
| **NoR 5** | Westgate Te Waiarohia station |
| **NoR 6** | Royal Road Mānutewhau station |
| **NoR 7** | Lincoln Road Wai o Pareira station |
| **NoR 8** | Te Atatū Ōrangihina station |
| **NoR 9** | Busway between Waterview interchange and west of Ivanhoe Road (including all stations and local road connections) |
| **NoR 10** | Busway between Ivanhoe Road and Ian McKinnon Drive (including all stations and local road connections) |
| **NoR 11** | Point Chevalier station |
| **NoR 12** | Western Springs station |

Site address:

Generally along State Highway 16 between Brigham Creek and Auckland City Centre

- NWRT_Part 6_ 5_Property Schedule Land within designation boundary, and
- NWRT_Part 6_6_Property Schedule Land adjacent to the designation boundary)

## 2.0 Executive Summary / Principal Issues

Generally, I am supportive of the proposal.

Principal issues arising from the proposal are the inconsistency with wildlife management during construction and the proposed conditions of consent; namely the quantum of 'mitigation' for the loss of terrestrial biodiversity values.

The applicant's terrestrial ecological specialist has not endeavored to contact me or discuss any matters relating to terrestrial biodiversity and/or management of effects.

## 3.0 Documents Reviewed

- SUPERSEDED North-West Rapid Transit – The Project
- Assessment of Ecological Effects – April 2026
- Terrestrial Vegetation Ecology Assessment – April 2026
- Appendix A - Proposed Designation Conditions – April 2026
- Appendix-B Proposed Consent Conditions Updated – April 2026
- Memorandum of counsel on behalf of NZTA Waka Kotahi – April 2026
- Attachment 6.1 Indicative Design West
- Attachment 6.2 Indicative Design East
- Attachment 6.3 Indicative Cross Section
- Attachment 6.4 Designation Plans

## 4.0 Additional Reasons for Consent Not included in AEE (Resource Consent only)

- E26(3) Operation, maintenance, renewal, repair, construction and removal of network utilities and electricity generation facilities and minor infrastructure upgrading. This may be an additional matter regarding natural inland wetland buffers.

## 5.0 Specialist Assessment (Notice(s) of Requirement (NoR) and Resource Consent (RC))

I am very familiar with the route and have been involved in several projects near to the defined route.

I am familiar with and have reviewed several ecological reports as they relate to nearby developments. In my opinion I am well-versed in understanding the biodiversity values in the vicinity, and those likely to be present.

Given my knowledge and prior involvement with those projects, and the habitats to be affected by the construction of the route, I did not consider it necessary to undertake specific site visits.

The RC's is relevant to my specialist expertise, and for expediency this review covers both applications, whilst not providing specific reviews of the NoR. Whilst I do not consider it necessary to split the issues, as

both applications are intrinsically linked with each other, as they relate to terrestrial ecological effects. Effects on terrestrial biodiversity values are deemed to be regional matters for consideration and consent.

Whilst I do believe it would be prudent to acknowledge ecological values the NoR conditions, especially given the extended timeframes and staging issues, ultimately such matters can be appropriately managed through the resource consent.

**Condition Definitions** [Acronyms and defined terms]

**Riparian margin**

The Unitary Plan defines riparian margin in Chapter J, and it is not expressed as, "*Within 20m of the centreline of a permanent or intermittent watercourse*". I suggest this being omitted or amended from the consent conditions, not only because the Unitary Plan definition states "*An area of land immediately adjacent to a permanent or intermittent river or stream*", but for most zones in the AUP(OP) the riparian margin width is undefined. However for consistency and consideration, a *riparian margin* as cited in Chapter E15.4.1(A19) is 10m in urban areas [adjacent to the wet area].

I also note that the applicant has not defined wetlands or wetlands buffers, neither of which are defined in the Unitary Plan [wetland defaulting to RMA Part 2 Interpretation]. I refer to E15.4.1 (A18) where a buffer margin is "*within 20m of a natural wetland*" [adjacent to the wet area]. For avoidance of doubt, vegetation disturbance nearby wetlands is not expressly provided for in Chapter E26 and would be a discretionary activity (A78).

I also note that Condition 15, is a double-up of condition 14, as the former also relates to riparian vegetation and not the loss of aquatic habitat which otherwise would be considered "works ***in*** a watercourse" [emphasis added]. I will defer to the Council's freshwater ecologist to provide further discussion on this subject matter.

**Suitably Qualified Person**

In my opinion the use of the term suitably qualified person is not specific to the specialist tasked with providing expert opinion, reporting and/or implementation compliance. It may be that there is an inference that technical reports will be submitted by appropriate experts, however, unless it is stated within the condition of consent there is no requirement to do so.

I have experience in regionally significant infrastructure and other large-scale developments where this ambiguity has led to delays and misunderstandings, and conflicting opinion, and/or lacking the specific detail within a specialist report to carry out the work expediently or expertly.

Furthermore, the Consent holder / Requiring Authority would be able to self-certify who they consider to be suitably qualified, even if that person has little or no experience in subject matter expertise. This leads to a question of enforceability with consent conditions.

Unlike the Suitably Qualified and Experienced Practitioner Contaminated Land specialist (SQEP), no other expert is stated and/or defined. There will be a requirement to provide some very technical documentation and provide expert advice on some very specific management plans (fauna and restoration). This is best undertaken by an ecologist. I also note that conditions require the consent holder / Requiring Authority to seek the advice of the SQEP, not be able to demonstrate compliance.

I would suggest, for clarity, that where ecological expertise is required, it should be explicitly stated that submission of reports is provided by a suitably qualified and experienced ecologist, or Suitably Qualified Experienced Practitioner (Biodiversity) [SQEP(B)], with a suitable change to SQEP(CL) to avoid any confusion or misunderstanding.

**Assessment of Ecological Effects**

**Lizards (herpetofauna)**

Surveys were undertaken in May using methodologies that are not reliable. Surveys were outside of the recognized seasonal restrictions governing lizard rescue and salvage; noting that outside of the October-April period, animals are less likely to be active, mobile and therefore more undetectable. This low detection rate, especially for animals who are very cryptic, leads to an inference that animals are in low population numbers. These same seasonal restrictions are included in Department of Conservation Wildlife Act permits for all permits issued for the Auckland region and does raise the question as to whether the 'handling' of lizards outside of the permit restrictions, for identification purposes, was within the parameters of the permit holder.

I find inconsistency with the stated ECIA observations that the weather was warm and dry during survey. Historical weather patterns for this period (1 May – 12 May 2025 showed the average temperatures down to 12deg and up to 80mm rain. These are not conditions suitable for targeted herpetofauna survey; notwithstanding I acknowledge that animals were located.

The location(s) of the targeted surveys was not provided in the EcIA, and there are several records of threatened species all along the route. Whilst I agree with the findings of the EcIA, in that the survey results and existing records, "*provides sufficient evidence to indicate the likely presence of copper skinks within suitable habitat in the Project Area*", I do not agree with the omission of a search and rescue condition by the applicant (other than observance with Wildlife Act authority).

The Auckland Transport Eastern Busway project also presented survey data for their ECIA, as part of their application, that similarly suggested low records / occurrences for lizard species in sparse and low value terrestrial habitat. Recent social media posting by Auckland Transport revealed more than 350 individual copper skinks (*Oligosoma aeneum*), required relocation to suitable habitat. https://www.linkedin.com/posts/auckland-transport_lizard salvage. Many of the individuals were not located and recovered from indigenous habitat, or areas within the Significant Ecological Area overlay, but was located within riparian, coastal margins, and wetland buffer areas.

The consultant ecologist concludes that a Wildlife Authority permit would be required for lizard salvage and recommends a Lizard Management Plan (LMP) is submitted for approval as part of the project. I agree. As I note above, the recommended conditions of consent do not include an LMP. The Department of Conservation (DOC) is not a regulatory authority under the Resource Management Act, and I note that the proposed Legislative RMA reforms are seeking to defer all wildlife and consenting approvals (other than the Wildlife Authority permits) to the District, Regional and/or Unitary Councils. This raises several issues, notably regarding compliance, as to whom the consent holder is ultimately responsible for. Auckland Council has due regard, through assessment criteria in several chapters of the AUP(OP), regarding threatened species in coastal margin, riparian, wetland buffers and areas of ecological significance. In my opinion and with extensive experience in compliance matters, the deferment to a 3rd Party (DOC) is quite irregular and a significant departure from normal regulatory compliance and monitoring associated with designations and/or consenting requirements; especially where Auckland Council has discretion. I also note that this project could be up to 20years or more in duration, and there is

a need for consistency throughout this construction; this is best delivered and administered by the Regulatory Authority tasked with monitoring resource consents and designation requirements.

Wildlife Authority restricts relocations of wildlife to within 500m of the impact site, and only if the habitat is suitable and has been pre-prepared adequately; this can include improvements to habitat, pest animal control and post release monitoring. 3rd party landowner approvals may also be required. The EcIA does not provide any details of how wildlife mitigation / management will be carried out, leaving the reader without the necessary information to provide an informed opinion; the resulting EcIA is mostly subjective and lacks any clarity on such matters. This is further compounded by the default for compliance, to the Department of Conservation.

**Long-tailed Bats and Avifauna**

I agree with the EcIA with regards to the known and potential habitat of bats and avifauna, and that with adequate conditions of consent, the potential adverse effects on those animals can be adequately mitigated.

However, I do recommend changes to conditions of consent to ensure effective, site and species-specific management are undertaken, and actions undertaken by the consent holder will be enforceable and monitored.

**Mitigation vs Offsetting**

The applicant submits that only native [indigenous vegetation] should be accounted for and its loss '*mitigated*'. This is a significant departure away from the considerations of the Unitary Plan. Neither Chapter E15 or E26 refers to and provides for discretion only to indigenous vegetation / native habitats. The position taken by the applicant appears to assume that exotic habitat provides little or no value to biodiversity / indigenous species, ecosystem services or habitat / food source provision. This is demonstrably incorrect and not supported by the EcIA, noting that Pine trees have been highlighted for their Long-tailed Bat habitat in the EcIA and for example avifauna utilize exotic habitat for roosting, nesting and food.

Works within a watercourse require addition consent under E3 and NPS-Freshwater, outside the scope of this review, however the effects of stream/wetland loss must be appropriately accounted for. The applicant is attempting double accountancy for the loss of both freshwater (aquatic) and terrestrial values, stating clearly that the former is interchangeable with the terrestrial mitigation (resource consent conditions 14 & 15). Notwithstanding condition 15 includes unnecessary wording for riparian vegetation loss, this will result in an overall net loss of ecosystem services, habitat for indigenous species and urban ngahere [vegetated cover / forest].

Furthermore, the applicant seeks to plant anywhere up to and including 1.5km of the designation boundary, but without regard to the specific impact site and where it was located which may be many kilometers away. This is not mitigation but offsetting or compensation, and both latter could be some distance away from the impact, with no guarantee of a no-net-loss of biodiversity values. The EcIA does not provide a detailed assessment of effects and the effects management hierarchy. The ecologist has not provided any details of the location of restoration opportunities and where they might present themselves. They do not discuss offsetting or compensation accountancy. This is a surprise given the ecologists' experience who I would imagine would be well versed in such matters (including case law), regarding mitigation vs offsetting / compensation.

The generally accepted methodology to calculate appropriate terrestrial offsetting is the use of the Biodiversity Offset Accountancy Model (BOAM) as set out in the New Zealand government Guidance on

Good Practice Biodiversity Offsetting in New Zealand, New Zealand Government et al, August 2014; offsetting is also specified in Appendix 8 of the AUP(OP) and directs the reader to the same guidance. For avoidance of doubt, riparian planting (dryland) does not mitigate or offset for the loss of aquatic (wet) habitat, it is compensation as set out in the Stream Ecological Valuation (SEV) guidance (resulting in an Ecological Compensation Ratio). The loss of aquatic value and the resultant riparian compensation is not demonstrated through an arbitrary and simplified 1.5x calculator, but using the tried and tested, and generally accepted SEV(ECR) methodology.

Aquatic values are site specific, as are terrestrial habitat values; appropriate accountancy tools should be used.

I can only assume that the applicant is attempting to place as much of all and any planting within the designation boundary and attempting to limit any need to look elsewhere (offsite) for appropriate offsetting or compensation opportunities (which there are many depending on distance, which may be further than 1.5km). Whilst there are likely to be some opportunities to enhance and restore some of the habitats impacted on construction, the overall net loss of biodiversity, habitat value and ecological function must be appropriately accounted for, and in my opinion the proposed conditions of consent will not demonstrate a no-net-loss / preferable gain in ecological value. The EcIA does not provide any assessment of appropriate sites, or whether they are available within 1.5km of the designation boundary.

In allowing planting anywhere within the designation, and up to any location that is within 1.5km of the boundary, and without appropriate safeguards in place (or specification), the loss of one habitat type, which may be necessary to ensure survival of specific species, may not be appropriately accounted for or the adverse effect mitigated. The wording of condition 14(a)(i) (and 15(a)) is non-specific to the type and function of the native planting and is highly subjective in its wording.

Notwithstanding the above, I do agree in principle with the remediation of sites, where temporary loss is unavoidable; noting that I do not agree with the subjective and locality/habitat non-specific wording of the replanting condition.

Whilst I do acknowledge that the Auckland Council planting / ecosystem restoration guide (Te Haumanu Taiao: Restoring the natural environment in Tāmaki Makaurau) is not a statutory document (it is not cited in the AUP(OP), it is the result of collaboration with Councils partners (e.g. Mana Whenua) and other stakeholders, and represents the latest thinking in appropriate and ecosystem specific restoration. I would suggest it's inclusion in the conditions of consent, as I would for pest animal control to ensure success of the planting and any fauna management specific requirements.

I will recommend changes to the wording of the conditions of consent.

## 6.0 Section 67 Information Gap

At the time of writing this Memo I have identified the following information gaps:

- ECIA does not contain a Biodiversity Offset Accountancy Model
  I have addressed the lack of offsetting in the EcIA and ambiguous wording of the proposed conditions of consent, in the previous section of this review; I believe this is a material oversight by the applicant. I will propose changes to Condition 14 & 15 to address this shortfall.

- Draft Fauna Management Plans
  In my experience it is also preferable to have draft fauna management plans.

Notably for some species (bats and lizards) the methodologies are very specific and need expert advice.
Furthermore, receiver sites may require Landowner Approvals, and / or may not be suitable relocation habitats. Many sites for relocation require advanced pest animal control prior to implementation; delay and result in animals requiring delayed release and/or holding in captivity. Having as much detail within an application EcIA expediates certification with wildlife management plans, leading to more efficient delivery of construction and provides for more surety construction management / timelines. In my experience, significant delays have been encountered by the lack of sufficient and detailed EcIA reporting.

| Information gap | Nature of deficiency | Decision-making impact | Risk / uncertainty created |
|---|---|---|---|
| 1. Biodiversity Offset model | The ECIA on refers to mitigation whereas the TVEA states "that all replacement planting be undertaken within the Proposed Designation or within 1.5km of the Proposed Designation Boundary" Mitigation has specific meaning, as does offsetting and compensation. | Cannot accurately assess the associated impact and offsetting metrics. | Potential for inadequate assessment of ecological value and appropriate offsetting of biodiversity values. |
| 2. Draft fauna management plans. | Fauna management plans, notably lizard management. | Obligations under the RMA and regulatory considerations are uncertain and may not be achievable; including whether additional landowner approvals are necessary and or there is suitable habitat available as a receiver location (including pest management necessary for the success of relocations. (this will be discussed below) | Impacts to wildlife is unknown and could have a high impact. It is unclear how the effects will be appropriately managed and mitigated. For expediency and completeness it is advised that the applicant provide draft management plans. |

## 7.0 Recommendation

As previously noted, I am generally supportive of the proposal, subject to appropriate changes to the Resource Consent conditions.

## 8.0 Proposed Conditions (Resource Consent)

I do not support the conditions (below) as submitted and I recommend changes.

Changes are proposed to provide for surety in meeting and demonstrating standards / accountancy, to whom is required to provide reports, and to remove ambiguous or subjective wording.

underline for inclusion, ~~strike-through~~ for deletion; terrestrial biodiversity conditions whereby agreed are not included below, e.g. Condition 19 Kauri Die-Back Management

Acronyms and defined terms

SQEP(B) ~~Suitably Qualified Person~~ Suitably Qualified and Experienced Practitioner (Biodiversity)

SQEP(CL) Suitably Qualified and Experienced Practitioner for the purpose of the assessment of contaminated land.

14 Terrestrial ~~Native~~ Vegetation Removal

a) If ~~native~~ vegetation within the Designation is removed in the SEAs shown in Schedule D, in a coastal margin, in a natural inland wetland or its buffer, or in a riparian margin, the Consent Holder shall:
   i) for temporary construction works, plant ecosystem appropriate native vegetation in those areas where vegetation was removed.
   ~~ii)~~ for permanent habitat loss ~~work~~, provide a Biodiversity Offset Accountancy Model (BOAM) ~~plant an equal area (in m2) within a SEA, coastal margin or riparian margin:~~
   ~~A within the Designation; or~~
   ~~B within 1500m of the boundary of the Designation.~~

~~b) Any mitigation planting undertaken in accordance with Condition 15 can also be counted as mitigation planting under Condition 14 for removal of vegetation in riparian margins.~~

c) The vegetation removal must account for the staging of the construction.

d) For planting under (a) the Consent Holder shall:
   i) engage a SQEP(B)* to ~~advise~~ demonstrate compliance with the following: eco-system specification, appropriate location, and determine plant species and eco-sourcing, density and sizing, in accordance with the specifications detailed in Te Haumanu Taiao;
   ii) undertake eco-sourced planting within the first planting season following completion of construction ~~where practicable~~;
   iii) undertake pest animal and plant control for no less than a five-year period; and
   *iv)* monitor planted areas and undertake replacement planting for a five-year period or until 80% native canopy cover is achieved (whichever is less).

*This assumes changes to the definition re: Suitably Qualified Experienced Practitioner (Biodiversity)

As noted previously, the following condition contains matters that are doubled-up up from condition 14. Should the applicant require or need to impact in-stream / aquatic values, the most appropriate accountancy tool is the Stream Ecological Valuation toolbox.

~~*15 Works in Watercourses*~~

a) ~~If native vegetation is permanently removed for bridging of a watercourse, the Consent Holder shall plant the riparian margin of:~~
   ~~i) the same stream; or~~
   ~~ii) another stream that intersects the Designation.~~

b) ~~The area of riparian margin planting under (a) shall be no less than the area of the permanent vegetation removal.~~

c) For any new (including extension of) permanent culverts and stormwater outfalls in a watercourse, the Consent Holder shall ~~plant the riparian margin of~~ undertake an evaluation of the impact using the Stream Ecological Valuation (SEV) methodology:
   ~~i) the same stream; or~~

ii) ~~another stream that intersects the Designation.~~

d) ~~The riparian margin planting under (c) shall be 1.5x the length of the watercourse occupied by the culvert or outfall and a minimum of 5m wide on each side of the watercourse (from the edge of the channel).~~

e) Any mitigation planting undertaken in accordance with Condition 14 for removal of vegetation in riparian margins cannot ~~can also~~ be counted as mitigation planting under Condition 15 and must take into account the staging of the construction.

f) For planting under (a)* ~~and (c)~~ the Consent Holder shall:

i) engage a SQEP(B)*[2] to ~~advise~~ demonstrate compliance with the following: eco-system specification, appropriate location, and determine plant species and eco-sourcing, density and sizing, in accordance with the specifications detailed in Te Haumanu Taiao;

ii) undertake eco-sourced planting within the first planting season following completion of construction ~~where practicable~~;

iii) undertake pest animal and plant control for no less than a five-year period; and

*iv)* monitor planted areas and undertake replacement planting for a five-year period or until 80% native canopy cover is achieved (whichever is less).

* This assumes the lettering changing because of the removal of the riparian vegetation consideration.

*[2] This assumes changes to the definition re: Suitably Qualified Experienced Practitioner (Biodiversity)

The following bird condition is generic, and not specific to the avifauna that may be encountered, e.g. terrestrial or wetland birds, both of which have differing seasonal nesting habits, threat status and may be more cryptic and subjective to disturbance. As such, some avifauna require more robust setbacks to be provided. I also disagree that residential properties can be excluded, noting that buildings and/or habitat may be cleared (or become overgrown) or remain for a significant amount of time, and may include riparian, wetland, and/or SEA overlay areas.

15 *Native Birds*

~~If~~ Where vegetation clearance ~~(excluding vegetation on land zoned residential)~~ is to occur during the native bird nesting period (~~September~~ August to ~~February~~ March inclusive), the Consent Holder shall engage a SQEP(B)* to:

(a) Undertake native bird nesting surveys within 10days before any vegetation is cleared.

(b) The surveys must take into account the staging of the construction.

(c) If active native bird nests are found, identify a 20m set back distances for construction works until the young birds have fledged or the nest is naturally abandoned. The set back distance is to be extended where wetland avifauna are present, to a distance of no less than 50m.

*This assumes changes to the definition re: Suitably Qualified Experienced Practitioner (Biodiversity)

The proposed Bat condition does not provide for any survey result monitoring reports, does not recognise habitat alterations that are known to result in adverse effects on Long-tailed bats. The condition as proposed is subjective, is not Auckland specific, does not detail timing or seasonal restrictions, and does not provide for the specific competencies necessary to undertake the work required.

*18.* *Bat management*

Between 1 October – 30 April inclusive, and within 5-days prior to the removal of any trees in the area shown in Schedule E ~~that, in the opinion of a SQP, may be used as roost for bats, then~~ the Consent Holder shall appoint a Specialist Bat Ecologist with the level 3 competencies of the NZ Bat Recovery Group, as specified below, to apply the Department of Conservation Bat Roost Protocols (Protocols for minimising the risk of felling occupied bat roosts October 2024) or updated version. Any tree greater than or equal to 15 cm DBH to be removed, or to be pruned (removal of woody limbs with maximum diameter >30cm, or removal of >10% of the canopy cover) is to be surveyed and demonstration made that there is no Long-Tailed Bat Activity. The results of the survey is to be certified by Auckland Council prior to felling. Monitoring must be undertaken overnight (from one hour before dusk until dawn), for a minimum of two fine nights using an Automatic Bat Monitor (ABM; or multiple ABMs as required). A fine night is when the temperature is above 8° with no, to very little

precipitation during the first four hours after sunset. Surveys must not commence if the dusk temperature is below 8°C.
*Any potential roost features (PRF's) present in a tree or group of high-risk trees, as identified in habitat the survey, a Specialist Bat Ecologist with the level 3 competencies of the NZ Bat Recovery Group which are required for the task being undertaken must conduct surveys, immediately prior to felling and/or pruning using one or more of the following methods:*
*• visual inspection of PRFs (Competency 3.3 required);*
*• ABM deployment for at least two consecutive valid nights (Competency 3.1 required);*
*• roost watches for at least two consecutive valid nights (Competency 3.2 required).*

As noted previously, in my opinion a lizard management plan condition is required. As part of this review it is found that the preliminary surveys were incomplete, undertaken outside of suitable weather, and not within appropriate seasonal restrictions. The evidence cannot be relied upon for accuracy. Furthermore the ecologist accepts the need for lizard management, and in my opinion the applicant is overly reliant on an organisation (Department of Conservation) that is not the regulatory authority for consenting and monitoring of the construction. Ther default to a 3rd Party to ensure regulatory compliance is highly questionable in my opinion and not consistent with current practices.

20. Lizard Management
Prior to the commencement of any vegetation removal work the Consent Holder shall present, to the Auckland Council, a Lizard Management Plan (LMP), to be certified and implemented. The LMP must consider and take into account any staging of the construction. The LMP shall address the following:

- Credentials and contact details of the ecologist/herpetologist who will implement the plan.
- Timing of the implementation of the LMP to be undertaken during fine weather between September - April (inclusive);
- A description of methodology for survey, trapping and relocation of lizards rescued including but not limited to: salvage protocols, relocation protocols, nocturnal and diurnal capture protocols, supervised habitat clearance/transfer protocols; artificial cover object protocols, and opportunistic relocation protocols.
- A description of the relocation site; including discussion of:
  (a) provision for additional refugia, if required e.g. depositing salvaged logs, wood particles or debris for newly released skinks that have been rescued;
  (b) any protection mechanisms (as required) to ensure the relocation site is maintained (e.g.) covenants, consent notices etc.;
  (c) weed and animal pest management to ensure the relocation site is prepared in advance and maintained as appropriate habitat.
- Monitoring methods, including but not limited to baseline surveying within the site; baseline surveys outside the site to identify potential release sites for salvaged lizard populations and lizard monitoring sites, ongoing annual surveys to evaluate translocation success, pre and post – translocation surveys' and monitoring of effectiveness of pest control and/or any potential adverse effects on lizards associated with pest control.

## 9.0 Proposed Conditions (Notices of Requirement)

As noted previously, whilst I acknowledge the Resource Consent triggers are matters of regional consent, it is my recommendation that ecological issues be a consideration of the NoR especially as they relate to restoration / revegetation planting. It is my opinion that the NoR conditions as written are not detailed enough and are subjective in their wording.

In my opinion the landscape planting should be additional to that of any remediation or planting required by resource consent, and that Arch Hill Scenic Reserve habitat loss is fully accounted for and appropriate

planting ensues. However, it may not be possible or appropriate (noting land use and/or recreational constraints) to plant within the Reserve, in which case offsetting will be required.

**Landscape Planting**

(a) The Requiring Authority shall, where practicable:
  i) Retain existing mature~~, native~~ vegetation
  ii) Plant at stations and batter slopes
  iii) Use eco-sourced native vegetation
  iv) Integrate, but be additional to, planting with any planting required by conditions of resource consents for the Project.

(b) For planting under (a) the Requiring Authority shall:
  i) engage a SQEP(B)* to ~~advise~~ demonstrate compliance with the following: eco-system specification, appropriate location, and determine plant species and eco-sourcing, density and sizing, in accordance with the specifications detailed in Te Haumanu Taiao;
  ii) undertake eco-sourced planting within the first planting season following completion of construction ~~where practicable~~;
  iii) undertake pest animal and plant control for no less than a five-year period; and
  *iv)* monitor planted areas and undertake replacement planting for a five-year period or until 80% native canopy cover is achieved (whichever is less).

**Arch Hill Scenic Reserve – ~~Native~~ Vegetation Removal**

(a) Any ~~If native~~ vegetation within the Designation is removed from within ~~in~~ Arch Hill Scenic Reserve shown in Schedule CA, the Requiring Authority shall:
  (i) for temporary construction works, plant native vegetation in those areas where vegetation was removed.
  (ii) for permanent habitat loss ~~works~~, ~~plant an equal~~ provide a Biodiversity Offset Accountancy Model (BOAM) to calculate an appropriate area (in m2) ~~of planting~~ either within Arch Hill Scenic Reserve or elsewhere ~~within the Designation.~~

(b) For planting under (a) the Requiring Authority shall:
  v) engage a SQEP(B)* to ~~advise~~ demonstrate compliance with the following: eco-system specification, appropriate location, and determine plant species and eco-sourcing, density and sizing, in accordance with the specifications detailed in Te Haumanu Taiao;
  vi) undertake eco-sourced planting within the first planting season following completion of construction ~~where practicable~~;
  vii) undertake pest animal and plant control for no less than a five-year period; and
  *viii)* monitor planted areas and undertake replacement planting for a five-year period or until 80% native canopy cover is achieved (whichever is less).