

Memo

To:	Paul Ryan – Hamilton City Council	T+T Job #:	1090635
From:	Fiona McIntosh & Dean C Miller – Tonkin + Taylor	Date:	13 May 2025
cc:			
Subject:	Rotokauri Strategic Infrastructure Requirement – Technical Specialist Report for Section 42A Reporting		
Technical Area:	Ecology		
Version:	Final		

Purpose

1. This memorandum has been prepared to provide technical assessment under section 42A of the Resource Management Act 1991 (RMA), in respect of Ecology in relation to the Rotokauri Strategic Infrastructure Requirement (the Requirement).

Introduction

2. This memorandum has been prepared jointly by Fiona McIntosh and Dean C Miller. Ms McIntosh covers terrestrial, and wetland ecology matters, and Mr Miller covers stream ecology matters. Qualifications and experience are set out as follows.
3. Ms McIntosh holds the qualifications of Bachelor of Science and Master of Science in Biological Sciences from the University of Waikato. She is a member of the New Zealand Ecological Society and National Wetland Trust. Ms McIntosh has been working as an ecology consultant since late 2008 where she has been involved in wetland and terrestrial ecology projects across a wide range of different habitat types and locations throughout New Zealand. This work has included baseline surveys, ecological impact assessments, vegetation and habitat monitoring, natural area management and restoration plans, and ecological impact assessments for projects within and affecting freshwater, wetland, terrestrial and coastal environments.
4. Mr Miller holds the qualifications of Bachelor of Science and Master of Science and Technology with First Class Honours in Biological Sciences, from the University of Waikato. He is a member of the New Zealand Freshwater Sciences Society. Mr Miller has been involved in freshwater ecology related aspects of projects in New Zealand since 2002. This work has included preparation and implementation of ecological monitoring and management plans, specialist water quality and ecology advice, coordination of small and large-scale ecological

evaluations, ecological impact assessments for projects within and affecting freshwater environments, and technical review of resource consent applications.

Code of Conduct

5. We have read the Environment Court Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023 and agree to comply with it. We confirm that the opinions expressed in this memorandum are within our area of expertise except where we state that we have relied on the advice of other persons. We have not omitted to consider materials or facts known to us that might alter or detract from the opinions we have expressed.

Scope

6. This memorandum covers the following:
 - a. The relevant environmental effects of allowing the Requirement and whether any adverse effects will be acceptable,
 - b. Relevant matters raised, and relief sought, in submissions,
 - c. Relevant statutory considerations,
 - d. Recommended amendments and/or additions to the Requiring Authority's proposed designation conditions¹.

Executive summary

7. This report provides a technical assessment under section 42A of the Resource Management Act (the RMA), focusing on ecology aspects related to the construction and operation of the works provided for in the Rotokauri Strategic Infrastructure Notice of Requirement (the NOR). Following a review of pertinent documents, an on-site visit, and analysis of specific issues raised in submissions, we conclude that:
 - a. The proposed designation managed by the proposed designation conditions, modified in accordance with our recommendations², will generally have adverse effects on terrestrial vegetation, bat, bird, and lizard habitat, and on fauna injury or mortality that can be managed to low levels.
8. Key remaining concerns noted are:
 - a. How and where the residual adverse effects on waterways and wetlands will be offset or compensated to achieve no net loss of ecological values.
 - b. How the principles of additionality³ will be considered and accounted for by ecological offset or compensation, when the application appears to rely heavily on the proposed Rotokauri Greenway works.

¹ See s10 of the NOR.

² See paragraph 52.

³ Additionality is a key offsetting and compensation principle that is directly referenced in Appendix 6 and Appendix 7 of the National Policy Statement for Freshwater Management and Appendix 3 and Appendix 4 of the National Policy

9. Submissions have been reviewed in detail and recommendations made on whether they should be accepted or rejected.
10. Finally, we recommend that the Requiring Authority should continue to coordinate with Regional Council, land developers and road design teams to ensure adverse effects on ecological values within the Project area and immediate landscape are minimised.

Documents considered

11. The following documents have been considered in the preparation of this assessment:
 - a. Rotokauri Strategic Infrastructure Designation: Notice of Requirement - Final Report 19 September 2024, Prepared by Beca Limited for Hamilton City Council, (the NOR), including Appendix G – Ecological Impact Assessment, prepared by Beca Ltd and dated 24 April 2024 (“EclA”).
 - b. Section 92 response letter (Part 1) dated 31 January 2024 from Melissa Slatter on behalf of Hamilton City Council as the Requiring Authority.
 - c. Section 92 response letter (Part 2) dated 24 April 2024 from Tony Denton on behalf of the Requiring Authority.
 - d. Hamilton City Operative District Plan.
 - e. National Policy Statement for Freshwater Management 2020 (NPS-FM).
 - f. National Policy Statement for Indigenous Biodiversity 2023 (NPS-IB).
 - g. Te Ture Whaimana o Te Awa o Waikato (Te Ture Whaimana, Vision and Strategy).
 - h. Summary of submissions provided to us by Hamilton City Council.
 - i. The submissions listed in Table 1.

Table 1 Submissions that raise ecological matters

Number	Submitter
7	Steve Godley & Adam Marsh
9	Steve Nuich, Sophia Anne Nuich, Gibson Nominees Limited, Ivan Selak
14	Rotokauri Development Limited
15	Pragma Holdings Limited

Site visit

12. Fiona McIntosh and Dean C Miller visited the site on 31 October 2023. This involved a walkover at various accessible locations.

Statement for Indigenous Biodiversity. The principal of additionality requires that any biodiversity offset or compensation achieves biodiversity gains in extent or values above and beyond gains that would have occurred in the absence of the offset or compensation, such as gains that are additional to any minimisation and remediation undertaken in relation to the adverse effects of the activity.

Analysis

Considerations for the assessment and analysis

13. The EclA outlines (Section 1.3.1, page 3) that construction of the roading Project will not commence ahead of the construction of the Rotokauri Greenway, which intersects with the Project footprint in several places along the corridor. Therefore, any existing ecology features and values that are present in areas where the Greenway and Infrastructure designation overlap have not been assessed for this Project. This includes:
 - a. Vegetation on the margins of Rotokauri drain, which will be replaced as part of the Greenway Project.
 - b. Wetlands that will be modified or lost through the Greenway construction.
 - c. An assumption that the ecological features and functions provided by the Rotokauri Greenway and associated artificial wetlands are post-construction and in the early establishment phase when the works that would be authorised by the Roothing/Infrastructure designation commence.

Statutory considerations

14. The key statutory documents we have considered in our review include the NPS-FM and NPS-IB, and specifically the effects management hierarchy included in those documents (avoid, minimise, remedy, offset, compensate). This effects management hierarchy is referred to in Section 5 of the EclA.
15. We have considered Te Ture Whaimana o Te Awa o Waikato (Te Ture Whaimana, Vision and Strategy) as it relates to the restoration and protection of freshwater and terrestrial systems.
16. We have also reviewed the discussion in s9 of the NOR (pages 74-80, 83, 85-87, 89, 93-95, and 101-105) on the provisions in the NPS-FM, NPS-IB, National Environment Standards for Freshwater (NES-F), Waikato Regional Policy Statement (WRPS), Waikato Regional Plan (WRP), Hamilton City District Plan (HCDP) and other matters (Section 9.9) relating to freshwater, wetland, and terrestrial ecology matters. We agree with the comments on provisions relating to most of the relevant documents and policies referenced, but note that comments on provisions relating to avoiding loss of extent and values of wetlands are highly variable between documents and policies discussed.
17. This variability in approach to wetland related policies is, in part, a result of deferring detailed analysis of wetland impacts to the regional resource consenting phase (discussed further in paragraphs 34, 36, 38, and 48 below). However, in spite of the inconsistencies in commentary between discussion of statutory documents mentioned in paragraph 16 above, we consider that, through the detailed design and regional council resource consent process, the Project can be designed and constructed to comply with the statutory requirements discussed in s9 of the NOR.
18. Policy 9 of NPS-FM states: "*Policy 9: The habitats of indigenous freshwater species are protected.*" The discussion in Section 9.3.2 of the NOR (pages 78 – 80) appropriately refers to the management of freshwater receiving environments and habitats of freshwater species following the effects management hierarchy as set out in NPS-FM, stating that this will be further assessed through the regional resource consenting phase. On this basis we consider

the Requirement is consistent with Policy 9 of NPS-FM, noting that biodiversity offset or compensation will be required to fully manage effects.

19. For the remaining ecology related analysis, we consider that the Requirement is consistent with the relevant provisions.

Environmental Effects

Overview of assessments reviewed

20. The assessments that have been reviewed for this analysis are contained within the Rotokauri Strategic Infrastructure Designation Ecological Impact Assessment (Beca 2024a) and the summary of ecological effects in the Notice of Requirement Assessment of Environmental Effects (Beca 2024b). These reports use the EIANZ guidelines as a framework and include assessment of values and effects on:
 - a. Existing vegetation within farmland.
 - b. The future Greenway (which will replace Rotokauri Drain), the northern tributary of Rotokauri Drain, the Mangaheka Stream tributary and the existing rural drainage network.
 - c. Lake Rotokauri.
 - d. Wetlands within, or within 100 m of, the designation.
 - e. Avifauna, lizards, bats, and fish.
21. This technical review has been undertaken in relation to ecological matters that must be considered by the requiring authority under s168A(3) of the RMA. Relevant matters have been discussed in paragraphs 13-19 above.
22. Assessments of ecological impacts to waterways and wetlands have been reviewed and are included as context for this analysis. The Requiring Authority has advised that resource consent applications for activities that may have adverse effects on waterways and wetlands will be assessed as part of the future regional council consent process. However, it is necessary to provide some comment here to understand whether the proposed designation contains sufficient space for any effects management actions, or whether the mechanisms proposed for effects management (such as offset or compensation) can achieve suitable ecological outcomes.

Overview of methods

23. The methods employed for the Requiring Authority's EclA vary by ecological feature present within the proposed Project footprint but generally follow common and accepted approaches to mapping, describing, and information gathering for ecological assessments. In particular, we agree that the methods used to assess the following ecological features were appropriate to the scale of the Project:
 - a. Mapping, description, and values assessment of terrestrial vegetation.
 - b. Level of investigation and data collected for avifauna, bats, and lizards.

- c. Mapping, high-level classification and values assessments for watercourses and aquatic fauna.
24. However, methods or level of detail for the following assessments either contained some potential omissions or were not sufficiently robust to accurately determine the potential impacts of the Project (notwithstanding that future resource consent applications will address effects on wetlands and waterways):
- a. Wetland character and delineation assessment. Most of the assessment methods used were appropriate and well-presented with conclusions reached appropriate for the modified nature of the Project area. However, the following should be noted:
 - i. For wetlands that were assessed as potentially marginal in terms of wetland vegetation, the reliance on mapped soils data for determining hydric soil presence/absence could potentially over- or under-represent the extent of wetland habitat within the Project area.
 - ii. Some potential wetland areas may have been missed in the assessment. For example, an area of low-lying land on the western side of the drain at the northern end of the Project.

Ecological features and values assessment

25. The EclA identifies the key ecological features⁴ and values of the landscape within the Project footprint and zone of influence as the rural drainage network, the future Rotokauri Greenway, Lake Rotokauri, and the network of modified natural inland wetlands. We generally agree with the identification of these as key features and the values that have been ascribed to them. We also agree with the values assessment for other habitat types such as pasture, shelterbelts, exotic trees and the Mangaheka tributary and drainage network.
26. Lake Rotokauri is located approximately 4.5 km to the west of the Project footprint and will not be directly affected by the Project. It is therefore not included in the remainder of this assessment.
27. Fauna values within the Project footprint range from High (fish, birds, and lizards) to Very High (bats). We agree with the summary of likely habitat use and values for these fauna types and the relative importance of habitats within the Project footprint which has been ascribed in the EclA for each fauna type.

Assessment of ecological effects

28. Overall, we agree with the assessments of potential adverse effects on the ecology within the Project footprint and consider that all key impacts and magnitudes of impact have been identified. However, some assessment matters have not been carried through to the fullest extent required to clearly understand how impacts will be managed or values accounted for post-construction. Each broad ecology assessment grouping is therefore commented upon below.
29. The EclA identifies that increased sediment transport and deposition during construction works have the potential to adversely affect the wetland habitat, water quality and aquatic fauna of watercourses, and Lake Rotokauri if it is not properly managed. The EclA concludes

⁴ Key features identified as those given an ecological value rating of Moderate or higher.

that the overall level of effect of suspended sediment and sediment deposition would be Low or Very Low as long as an approved Erosion and Sediment Control Plan (ESCP) is in place and well implemented prior to, and during, construction. This matter will be further assessed as part of the regional consent process, and we agree that effects can be appropriately managed.

30. The EclA concludes that the level of construction effects on fish habitat, spawning, migration, and resident populations is potentially High without mitigation or management. Effects management approaches proposed include careful works planning, scheduling and other management actions including fish rescue/relocation, all of which are to be detailed in an Ecological Management Plan (EMP). We agree with the approach and that these effects can be adequately managed. This will be further assessed as part of the regional consent process.
31. Effects on fish passage and connectivity are assessed in the EclA to be Low overall if culverts are constructed in accordance with NZ best-practice guidelines. We agree with this assessment noting this will be further assessed as part of the regional consent process.
32. Loss of stream extent and other stream/watercourse impacts are identified and assessed, and we generally agree with the values, magnitude, and overall effects judgements in the EclA, as stated earlier. It is acknowledged in the EclA that there will be residual stream/watercourse loss impacts that will need to be addressed via ecological offset or compensation measures although the total quantum is not clear. The rationale for the lack of quantum is that the Project is only in an early stage of the design. While this matter will be addressed in the regional consent process, some indication of the total overall watercourse impact would have been helpful to understand the overall Project impact and the feasibility of addressing the identified impacts. At-Risk mudfish are identified as likely to be present in the area and therefore potentially impacted by the Project; this contributes to the values and effects judgements. Proposed solutions to manage mudfish are high level and rely to a degree on the Greenway Project.
33. The EclA identifies that no high value terrestrial vegetation will be affected by the construction or operation of the Project and, without mitigation the potential magnitude of effects would be Low. However, it recommends revegetation to replace cleared vegetation where feasible, which could improve terrestrial vegetation values and fauna habitat following construction. We agree with the approach and that these effects can be adequately managed through appropriate plant selection for amenity and remediation planting.
34. Natural inland wetland habitat will be permanently lost following construction and, without offsetting or compensation, the potential magnitude of impacts is High. We generally agree with the values, magnitude, and overall effects judgements in the EclA. It is acknowledged in the EclA that there will be residual wetland loss impacts that will need to be addressed via ecological offset or compensation measures although the total quantum is not clear. While this matter will be addressed in the regional consent process, some indication of the total overall impact would have been helpful to understand the overall Project impact and the feasibility of addressing the identified impacts.
35. The EclA identifies that, without mitigation or management, the potential for direct adverse effects on fauna during construction ranges from Low to High (impact on native birds is Low, potential for impacts on native bats is Low, impacts on native lizards is High, and impacts on native fish is High). However, the EclA considers that these effects can be adequately mitigated by careful works planning, scheduling, and other management actions such as tree felling protocols, or fauna salvage and relocation, all of which should be detailed in Fauna Management Plans (FMPs) for each fauna type. The EclA also provides a list of items that should be included within any fish, bat, bird, or lizard management plan. We agree with the

approach and that these effects can be adequately managed as long as robust fauna management plans are developed and implemented to best practice standards.

36. In addition to the above potential adverse effects, the AEE report identifies that, together with the Greenway corridor, the Project provides significant opportunities for positive ecological effects in the form of options to recreate ecological linkages and stepping-stones between Lake Rotokauri and Lake Waiwhakareke - particularly in relation to the enhancements to the habitat within, and function of, Rotokauri Drain. While we agree in principal that this outcome is possible there is no overall concept plan provided to inform how these outcomes may be successfully delivered. This matter will need to be addressed at the regional consenting phase.

Ecological effects management

37. Effects management approaches proposed are discussed in the previous section (paragraphs 28 to 36). In summary, the EclA proposes the following effects management measures:
 - a. An Erosion and Sediment Control Plan (ESCP) will be prepared at the detailed design stage and implemented throughout the construction phase.
 - b. Watercourse loss to be minimised through aligning stormwater and construction design with the Rotokauri and Mangaheka Integrated catchment management plans, and use of best practice fish passage design for culverts.
 - c. Development and implementation of a remediation planting plan to replace cleared vegetation in the surrounding area with ecologically suitable species.
 - d. An Ecological Management Plan (EMP) should be prepared and implemented, and shall include:
 - i. Fish management protocols to rescue and relocate fish prior to construction, and recommendations for monitoring of relocated populations of at-risk species. Methods for euthanising pest fish species.
 - ii. A lizard management plan to guide searching for, rescue, and translocation of any native lizards in the construction footprint. Reporting and monitoring requirements to be included.
 - iii. Timing of vegetation clearance to avoid bird breeding season, and/or recommendations on vegetation clearance pre-checks to avoid or minimise potential impacts to nests and/or fledglings.
 - iv. Development and implementation of a bat management plan to guide tree felling protocols and timing, and pre-clearance checks. Recommendations on street lighting post-construction should also be included in this plan.
 - e. Development of biodiversity offset and accounting models to determine suitable native fauna, stream, and wetland habitat replacement. Implementation of habitat replacement recommendations.
38. We generally agree with the effects management approaches proposed. The future regional consenting process can determine the quantum of residual effects and the proposed EMP can capture the required matters and develop these further. However, only high-level concepts have been provided at this stage for matters proposed to be addressed by offset or compensation. The applicant relies on building on effects management measures proposed

for the Greenway. While we generally agree this is appropriate, we note that there will need to be a clear distinction between the offset/compensation measures proposed by either Project to ensure the respective approaches meet the principles of good offsetting and in particular additionality (see footnote 3, page 2). To achieve no net loss of ecological values associated with the Project, it is essential that good modelling and implementation of any modelling recommendations are undertaken as part of the regional consents phase.

Matters raised in submissions

Submission # 9 by Steve Nuich, Sophia Anne Nuich, Gibson Nominees Limited, & Ivan Selak

39. This submission refers to uncertainty relating to impacts on, and management of effects for, a natural inland wetland, 'Wetland 8'.
40. The Requiring Authority has advised⁵ that any further assessments of effects relating to wetland habitat is a matter for the regional consenting phase where more detail on design and construction will be assessed and options to avoid, remedy, or compensate/offset any adverse effects can be applied.
41. Based on the current designation footprint and proposed stormwater network outlined in the AEE for the NoR, a robust assessment of effects and compensation and/or offset modelling and implementation is likely to be required for the wetland on the submitter's property.
42. In our opinion, the submitters' concerns are justified, and we would also have liked to see more detail around proposed options to remedy, offset, or compensate for the likely effects. We note, however, that the future regional resource consent process will address these matters.

Submission # 14 by Rotokauri Development Ltd and Submission #15 by Pragma Holdings Ltd

43. These submissions mirror each other in content and breadth of concern or questions.
44. They raise concern about the potential for the NOR works to change water flow within their properties via drainage or blocking of drainage. We agree that this is a fair point to raise, and that the impacts of this on the ecology of any waterways within the neighbouring properties should be considered during the regional resource consenting phase. We consider that Project effects that occur outside of the Designation should be considered.

Submission #15 by Pragma Holdings Ltd

45. This submission raises concern about the inclusion in the Ecological Assessment of a natural wetland area that is outside the 100 m buffer from the Project footprint. The submitter requests accurate reporting on wetland locations.
46. The updated (April 2024) version of the EclA no longer shows a natural inland wetland within the submitter's property. We therefore consider that this submission point has been resolved. However, we agree that any future wetland reporting should ensure that only wetlands within, or within 100 m of, any construction works or stormwater discharge points should be mapped and considered for more detailed effects assessments, unless there is a clearly stated reason for their inclusion in future effects assessments.

⁵ Section 9.3.2 of the NOR, page 80, paragraph 1.

Conclusions

47. The construction of the Rotokauri Eastern Arterial will involve loss and modification of existing ecological values and habitats. The EclA and AEE have identified the key existing ecological values, and the potential effects of the Project on those values.
48. The main exception to this is that the magnitude of impacts to wetlands and streams/waterways outside of the Rotokauri Greenway footprint, and potential changes to wetland hydrology and stream/waterway function, have not yet been determined. The NOR proposes (Table 10, p.36 of the EclA) that these matters are to be addressed through the Regional Council consenting stage and that offsetting and/or compensation quantum should be calculated during the resource consent process. However, with deferment of this matter, it creates uncertainty regarding whether effects on wetlands and streams/waterways can be adequately managed or appropriately compensated or offset (if required). Nevertheless, we are confident the regional consenting process will require a thorough assessment of this matter.
49. The NOR proposes (Table 10, pp. 36-38 of the EclA) a series of effects management measures for the other ecological values, most of which would be included in management plans once the Project design is sufficiently progressed. We consider that, for the ecological value of habitats and likely habitat use by native species assessed within the NOR, this approach is appropriate and can achieve a low level of impact on ecological values within and outside the designation.
50. In our opinion, the designated works, managed by appropriate designation conditions, including the modified conditions we recommend below⁶, or similar conditions, and appropriate Regional Council resource consent conditions will:
 - a. Have adverse effects on terrestrial vegetation, bat, bird, and lizard habitat, and natural inland wetlands and aquatic habitat that can be managed to low levels, and
 - b. Comply with the relevant statutory requirements listed in paragraphs 14 to 17 above.

Recommendations

Modifications to the Requirement

51. We do not recommend any modifications to the Requirement.

Designation conditions

52. We recommend that the requiring authority's notified proposed designation conditions⁷ be amended as set out below. Recommended deletions are struck-through, and recommended additions are underlined.

Condition 1.1

Except as modified by the conditions below and subject to detailed design, the Project must be undertaken in general accordance with the Rotokauri Strategic Infrastructure

⁶ See paragraph 52 below

⁷ See s10 of the NOR.

Designation Notice of Requirement dated ~~24 April~~ 19 September 2024 (NoR), including the Assessment of Effects on the Environment and the NoR appendices.

Condition 10.2.

The objective of the CЕСP is to minimise sediment discharge from the site to waterways, natural inland wetlands, or existing offset or enhancement wetlands to the greatest extent practicable and must also include methods to control dust and the impacts of dust on air quality.

Condition 10.3 (b)(iii)

A site plan of a suitable scale to identify, in general terms:

- A. The locations of waterways, natural inland wetlands, existing offset or enhancement wetlands, and proposed stormwater management wetlands.*
- B. The likely extent of soil disturbance and vegetation removal.*
- C. Any “no go” and/or buffer areas to be maintained undisturbed adjacent to watercourses, natural inland wetlands, or existing offset or enhancement wetlands.*
- D. ...*

Condition 12.2

The objective of the EMP is to address the potential adverse effects of the Project on ecological and biodiversity value and deliver the mitigations identified in Table 9 10 of Appendix G to the NoR.

Condition 12.3

The EMP must:

- a. Present a detailed methodology for the management of ecology within the Project, in general accordance with the Ecological Impact Assessment dated 24 April 2024, which is Appendix G to the NoR. ~~dated July 2023~~*
- b. Take into account the outcomes of any consultation with mana whenua.*
- c. Include, as a minimum:*
 - i. A summary of terrestrial and aquatic ecology and biodiversity values and effects of the Project.*
 - ii. Measures to avoid, minimise, remedy, ~~mitigate~~, offset, or compensate for adverse ecology effects, including, but not limited to, effects on watercourses, natural inland wetlands, or existing offset or enhancement wetlands, and black mudfish.*
 - iii. Measures to be adopted to limit encroachment of Project works into ecological sites.*
 - iv. The location and measures for restoration planting and habitat rehabilitation.*

- v. Fauna management plans for bats, birds, lizards, and fish that include (as a minimum):
 - 1. The location and measures for fauna ~~and avifauna~~ salvage, relocation, and post-relocation monitoring (as appropriate);
 - 2. How operational effects will be managed and incorporated into the final network design.
- i. An explanation of any regional consents required.

Condition 13.3

The LMP must be consistent with the Urban and Landscape Design Framework 2022 which is Appendix J to the NoR. Planting schedules and locations within the LMP should have regard to ecologically beneficial habitat requirements as outlined in Section 5.3.1, page 34 of the Ecological Impact Assessment, which is Appendix G to the NoR.

Reasons for the recommended amendments to the Conditions

53. We recommend the amendments set out in paragraph 52 to improve the conditions' clarity and certainty and for the additional reasons set out in the following table.

Table: Additional reasons for the recommended amendments to the notified proposed Designation Conditions

Notified Condition Number	Additional reasons for the amendments
1.1	To ensure that the most recent NoR documents are used for all further work relating to the NoR
10.2 10.3 (b)(iii)	We recommend that references to "natural inland wetlands", and "existing offset or enhancement wetlands" are inserted to ensure the terminology aligns with that used in the NPS-FM under which the effects on wetlands will be determined and managed. We recommend that all types of wetlands are listed in these conditions because sediment is a key potential adverse change agent for wetlands, as well as waterways.
12.2	To ensure that the appropriate table that lists ecological management and mitigation measures is referenced in all future works so that the outcomes and expectations are clearly identified and carried through to the appropriate management plans and/or future Project workstreams.
12.3 a.	The most up-to-date EcIA document is referenced to ensure all appropriate management plan provisions are captured.
12.3 c. i.	To ensure that aquatic biodiversity values are considered in the management plans.
12.3 c. ii.	To ensure that the most up-to-date wording of the effects management hierarchy from the NPS-FM is referenced and that all key potential moderate effects are listed to ensure none are overlooked.

Notified Condition Number	Additional reasons for the amendments
12.3 v.	<ul style="list-style-type: none"> a. To provide clarity on which fauna should specifically be included in the fauna management plan so that it is not left up to interpretation. b. To ensure that there is suitable, best practice information present on fauna handling and best-practice post-relocation management to ensure fauna management has been successful to the extent recommended in the EclA. c. To ensure that the long-term effects of a substantial change in lighting and noise associated with the road will be considered in the design and road development.
13.3	To ensure that the loss of lizard habitat is appropriately considered when landscape planting design is implemented. Failure to do so may result in net loss of lizard habitat and therefore not meet the mitigation and management requirements outlined in Table 10 of the EclA.

13-May-25

\\ttgroup.local\corporate\hamilton\projects\1090635\issueddocuments\20250213_rotokauri nor memorandum - ecology_for bis review.docx