

Memo

To:	Tahimana Ltd c/ Sally Gepp, Barrister	Job No:	2156.100
From:	Emily Roper, RMA Ecology Ltd	Date:	3 December 2025
CC:	Graham Ussher, RMA Ecology Ltd; Simon Collett, Collett Group Ltd		
Subject:	Ecological assessment for Tahimana, Stagecoach Road, Tasman for a Fast-track referral application		

Dear Sally,

RMA Ecology Ltd has been engaged by Tahimana Ltd to provide an assessment of ecological effects of the proposed subdivision and development project at Tahimana, Stagecoach Road, Tasman, for the purposes of an application to be referred to the fast-track process under the Fast-track Approvals Bill 2024.

The project site is located on Stagecoach Road, Tasman, legal description Lot 1 DP 450728 and Lot 3 DP 450728, hereafter 'the site'.

This memo provides the following:

1. A summary of RMA Ecology Ltd's involvement with the project to date, and professional expertise in the field of ecology;
2. Overview of the ecological values of the site and surrounds;
3. Assessment of ecological effects of the proposed development;
4. Management and mitigation of adverse ecological effects;
5. Assessment of the significant regional benefit of the proposed wetland restoration at the site; and
6. Assessment of how the project may be affected by climate change.

1 Experience and expertise

RMA Ecology Ltd has been involved in the Tahimana development project since January 2022. Ecologists at the company have been across all of the Tahimana development site over ten visits to undertake stream mapping, stream condition assessments, wetland delineation, ecological valuation and classification, vegetation mapping, native bird observations, and fauna habitat surveys. Desk-top work includes extensive GIS values mapping, effects assessment, and assessment of compliance with relevant national and regional policy.

Dr Graham Ussher, Principal Ecologist at RMA Ecology Ltd, has been involved at all stages of the project. Graham has 30 years of experience with government agencies and the commercial sector

assessing biodiversity and biosecurity issues in New Zealand. Graham has worked extensively with all sectors of land, transport, energy generation, and resource development on projects that involve assessments of ecological effects and the development of approaches to manage residual effects (including offsetting). Graham has published extensively on biodiversity offsetting, ecological compensation, and the application of the effects management hierarchy in New Zealand in local planning, legal and science journals and in internationally peer-reviewed publications.

Other RMA Ecology Ltd staff directly involved in this project have specialisations in botany, avifauna (birds), herpetology (lizards), and freshwater ecology (stream and wetland assessments), and all have 10-15 years of ecological practice experience.

Overall, we have confidence that the site investigations work for ecology has been undertaken to a very high standard.

2 Ecological values of the site

The site is located within a typical Tasman rural environment. The original vegetation, which would have consisted primarily of beech forest across hill slopes and podocarp forest in the river valleys, has been heavily modified or removed for the purposes of farming and forestry. The site is currently used for livestock grazing, and little native vegetation remains. A network of degraded streams and wetlands remain, supporting freshwater ecosystems which are of ecological value.

There are 13 watercourses on the site. They are in poor to very poor condition as a result of past and present land uses, including forestry, and the grazing of livestock. Stock continues to have access to all the streams, and trampling of the stream beds and grazing of riparian vegetation is in evidence throughout the site. Despite their degraded condition, the streams are part of a network of watercourse and wetland habitat, and will contribute towards ecosystem services such as stormwater attenuation.

In total, 51 wetlands have been identified on the site. These wetlands meet the criteria for 'natural inland wetland' as defined in the National Policy Statement for Freshwater Management. All of the wetlands are degraded as a result of decades of previous land uses, including forestry and farming, and the current use of the land for livestock grazing. They are of poor ecological quality, supporting only a low diversity of common wetland plant species, both native and exotic.

Seven native and four exotic bird species have been observed at the site – all are common species typical of rural farmland environments, that are not listed as 'At Risk' or 'Threatened'¹.

Native fish were not observed in the streams and wetlands during the site visits, but there are records of fish from the wider catchment². It is possible that the streams and/ or wetlands are used during periods of regular flow by native fish – longfin eel is the most likely species to use this site.

There is a large, ecologically significant wetland adjacent to the site on the eastern boundary. This wetland is actively managed for its ecological values, and protected by a stock- and cat-proof fence. The wetlands in the eastern catchment of the site are hydrologically and ecologically connected to this neighbouring wetland.

¹ Robertson *et al.* 2021. *Conservation status of birds in Aotearoa New Zealand, 2021*. New Zealand Threat Classification Series 36. Department of Conservation.

² NIWA Freshwater Fish Database

3 Assessment of ecological effects

A number of potential adverse ecological effects of the proposed development have been identified, relating to the effects of earthworks, stormwater management, and the predicted changes in hydrology resulting from an increase in impervious surfaces and diversion of stormwater. The potential adverse ecological effects have been analysed following the EIANZ³ methods to determine the magnitude and overall level of effects. In summary, all potential adverse effects, prior to the application of mitigation measures, fall within the range of moderate impact to net gain.

Initiatives are proposed to address these potential adverse effects of the development (see **Section 4**) to ensure the development has a less than minor adverse effect on ecological values.

These measures reduce the magnitude of adverse effects to **negligible**, or **positive**, resulting in overall levels of adverse effect that are correspondingly **very low**, or a **net gain**.

There are no residual adverse effects, therefore offsetting or compensation measures are not required.

The project will not have significant adverse effects on the ecological values of the site.

4 Summary of management and mitigation of adverse ecological effects

Methods to avoid or mitigate adverse effects on wetlands and streams include applying a 10 m setback from wetlands and streams for almost all works, implementing industry standard erosion and sediment controls, collecting and discharging stormwater from roofs to gully heads or to soak pits to maintain and recharge wetland hydrology, including groundwater, and planting the 10 m buffers with native wetland or riparian vegetation to create a net gain for biodiversity, including for native birds, lizards, and fish.

The proposed network of detention dams will also be planted with appropriate wetland and terrestrial natives, thus further increasing and enhancing biodiversity habitat across the site.

Potential effects on native fish will be minimised by salvaging fish from the farm ponds that will be subject to detention dam works, and providing for fish passage through Dam W4 between Stream 5.1 and Wetland W36, and through Dam E5d.

5 Assessment of the significant regional benefit of the proposed wetland restoration at the site

Freshwater wetlands are one of the most depleted ecosystem types in New Zealand, with 90 % having been lost nationwide⁴. While the Tasman region supports nationally and internationally important wetlands including Farewell Spit, Mangarakau Swamp, Waimea Inlet and Te Waikoropupu Springs, which are protected as public land, wetlands on private land have been severely depleted, now covering only about 5 % of their former area⁵.

³ As contained within the EIANZ EciA guidelines. Roper-Lindsay, J., Fuller S.A., Hooson, S., Sanders, M.D., Ussher, G.T. 2018. *Ecological impact assessment. EIANZ guidelines for use in New Zealand: terrestrial and freshwater ecosystems*. 2nd edition

⁴ Denyer, K and Peters, M. 2020. *The root causes of wetland loss in New Zealand: An analysis of public policies and processes*. National Wetland Trust.

⁵ <https://www.tasman.govt.nz/my-region/environment/environmental-management/land/wetlands/>

Wetlands are important for many reasons including:

- Provision of habitat for a wide range of native species including aquatic invertebrates, fish, and birds;
- Filtration of water and sediment, thus improving water quality;
- Water storage and flood mitigation; and
- Maintaining water flow in streams in dry periods – fish abundance and diversity is almost always better in wetland-fed streams⁴.

According to research by Denyer and Peters (2020)³, the Tasman region supported 3,557 ha of freshwater wetland in 2018. This area is spread over more than 800 wetlands, meaning that the majority of these wetlands are small, being less than 10 ha in area⁶. Freshwater wetlands are still being lost, primarily for the conversion of land to high-producing grassland. Between 1996 and 2018, almost 5,400 ha of freshwater wetland was removed nationwide³.

This extent and continuing rate of loss of freshwater wetlands illustrates the very great need for the retention and enhancement of freshwater wetlands, particularly on private land. The wetlands at Tahimana cover a total area of 1.25 ha. The wetland on the adjacent property on Westmere Drive covers an area of approximately 5 ha. Combined, these areas of wetland contribute 0.17 % of Tasman's total freshwater wetland resource. At the Ecological District scale, this represents 9.3 % of freshwater wetlands in the northern sector of the Moutere Ecological District⁷.

The proposed development at Tahimana will include the protection and restoration of all the wetlands on the site. The wetlands will be protected from stock and planted with native wetland plant species along with a 10 m buffer of native shrubs and trees. This will create a significant area of restored native wetland and buffering native forest habitats. Removing stock will allow the wetlands to recover from trampling and grazing. The restoration planting will create habitat for aquatic invertebrates as well as terrestrial fauna, and will improve the habitat quality in the streams for native fish by providing shade and inputs of woody debris.

The restoration of the wetlands and streams will also have a significant benefit for the wider catchment, including the large wetland on the adjacent property, by improving the filtering capacity of the wetlands. The increase in area of dense native vegetation in and around the wetlands and streams will improve the capacity of the wetlands to filter nutrients and sediment. Stormwater flow rates will also be reduced by the planted vegetation, reducing the rate at which stormwater enters the system, and reducing the potential for flooding and erosion downstream.

By improving the filtration of sediments and nutrients, reducing rates of stormwater flow, and creating shade, the restoration of the site's wetlands and streams will contribute to improved water quality in the wider catchment, including in the Moutere Inlet, which has significant ecological value. The Moutere Inlet is recognised as being nationally significant for shore birds and wading birds

⁶ https://www.wetlandtrust.org.nz/wp-content/uploads/2019/10/Tasman_Marlborough_TDC_revised-Oct-2019.pdf

⁷ North, M. 2015. Ecological District Reports. *Report 2A: Moutere Ecological District – Northern Sector*. Tasman District Council.

including the white heron⁸ ('Nationally Critical'⁹) and as a valuable nursery area for marine and freshwater fish¹⁰.

In summary, the proposed development at Tahimana will provide a significant regional benefit to Tasman's wetlands. It will create an overall net benefit for wetland and stream health through the removal of stock and the planting of wetlands and riparian margins. The proposed ecological planting will also increase the area of good quality habitat on the site for refuge, foraging, and nesting, benefitting a range of native terrestrial fauna species, including birds and skinks, as well as aquatic invertebrates and fish. Overall, the project will be of profound ecological benefit to the site. Wetlands, streams and their terrestrial margins will be enhanced and protected, with resultant improvements in the environmental resilience of adjacent local wetlands and the Moutere estuary, and considerable enhancement of local resources for indigenous biodiversity.

6 Assessment of how the project may be affected by climate change

Climate change projections¹¹ for the Nelson-Tasman region provide an overview of how the climate is likely to change in the future:

- Temperatures are likely to increase by 0.7°C to 1.0°C by 2040, and by up to 3°C by 2090 (compared to temperatures in 1995). There will be an increase in the number of days per year that experience maximum temperatures of over 25°C, and there will be fewer frosts per year.
- Rainfall will vary locally within the region. The largest changes will be for particular seasons rather than annually. Summer, autumn, and winter rainfall is projected to increase by approximately 10 % by 2090, with little change in spring rainfall.
- Extreme rainy days are likely to become more frequent throughout the region.
- The frequency of extremely windy days is not likely to change significantly, but there may be an increase in westerly wind flow during winter, and north-easterly wind flow during summer.
- Some increase in storm intensity, local wind extremes, and thunderstorms is likely to occur.
- Sea levels will continue to rise. New Zealand tide records show an average rise in relative mean sea level of 1.7 mm per year over the 20th century. Globally, the rate of rise has increased and further rise is expected in the future.

The proposed development is likely, therefore, to be affected by increases in temperature, and increases in rainfall in some seasons, with increased frequency of extreme rain events. Rising temperatures will result in increased evapotranspiration with the potential for increased rates of drying of streams and wetlands. On the other hand, increased rainfall in some seasons, and increased storm intensity, will have the potential to cause erosion, sedimentation, and flooding of

⁸ Davidson, R J, Starks, J E, Preece, J R, Lawless, P F, and Clarke, I E. 1993. *Internationally and nationally important coastal areas from Kahurangi Point to Waimea Inlet, Nelson, New Zealand: recommendations for protection*. Department of Conservation, Nelson/Marlborough Conservancy. Occasional Publication No. 14, 121 p.

⁹ Robertson *et al.* 2021. *Conservation status of birds in Aotearoa New Zealand, 2021*. New Zealand Threat Classification Series 36. Department of Conservation.

¹⁰ Schuckard, R and Melville, D S. 2013. *Shorebirds of Farewell Spit, Golden Bay and Tasman Bay*. Prepared for Nelson City Council and Tasman District Council.

¹¹ Ministry for the Environment <https://environment.govt.nz/facts-and-science/climate-change/impacts-of-climate-change-per-region/projections-nelson-tasman-region/#temperature>

the streams and wetlands, and downstream in the wider catchment. Rising sea levels will result in a reduced ability for the catchment to drain into the Moutere Inlet, and the potential for increased flooding upstream, particularly during high tides.

The stormwater water management system, including the detention basins, diversion of clean water to gully head wetlands and soak pits, along with the extensive planting of the stream and wetland network, will play a significant part in ensuring the effects of climate change are ameliorated:

- The stormwater detention basins are designed to detain water for a 1 % AEP rainfall event so that erosion and sedimentation do not occur downstream.
- Clean water from building roofs will be diverted directly into gully head wetlands or to soak pits so as to recharge surface and ground water inputs to these wetlands. This reduces the rate at which the total volume of stormwater enters the stormwater detention basins, and ensures wetlands above the detention basins continue to receive sufficient inputs of water.
- The extensive planting of the stream and wetland network, including 10 m buffers of native shrub and tree planting, will help protect the streams and wetlands from erosion in extreme storm events, increase the filtering capacity of streams and wetlands, and reduce the volume and rate at which water, nutrients, and sediment enter the catchment downstream.
- The planting will shade the streams and wetlands, thus keeping water temperatures low, even as mean average air temperatures rise. Low water temperatures are important for the health of fish and aquatic invertebrates, and for preventing excess growth of algae.
- Protection of the stream and wetland network by excluding stock from the streams, wetlands, and surrounding area, will have significant benefits for the health of the wetland system on site, as well as downstream in the wider catchment, by reducing the level of nutrients (from excreta) and sediment (from trampling) entering the catchment.

Yours sincerely,



Emily Roper

Senior Ecologist¹²

RMA Ecology Ltd

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¹² This report has been prepared for the benefit of our Client with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement. Any use or reliance by a third party is at that party's own risk. Where information has been supplied by the Client or obtained from other external sources, it has been assumed that it is accurate, without independent verification, unless otherwise indicated. No liability or responsibility is accepted by RMA Ecology Limited for any errors or omissions to the extent that they arise from inaccurate information provided by the Client or any external source.