

Report on submissions and further submissions on the
Proposed Waikato District Plan

Hearing 25: Mixed Use Zone - Matangi

Appendix 6: Beca Summary Reports

Memorandum

To: District Plan – Resource Management Policy Team, Waikato District Council
Date: 16 April 2021
From: Samantha Fraser, Beca Ltd
Our Ref: 4214056-1680710091-12
Copy: Carolyn Wratt, WDC Consultant Planner
Subject: Technical Specialist Review – Three Waters – Matangi Dairy Factory

Experience and Qualifications

My name is Anna Samantha Jane Fraser.

I am an Associate Civil Engineer employed by Beca Ltd.

I hold a Bachelor of Civil Engineering and Commerce degree from the University of Auckland. I am a Chartered Engineer and a Chartered Member of Engineering New Zealand.

I have been working in the civil engineering field for 10 years, predominately in New Zealand, and have carried out a wide range of civil engineering including stormwater infrastructure and environmental projects from conception to construction during that time.

1. Introduction and purpose

The purpose of this report is to provide a view as to whether:

- a) Sufficient and appropriate information has been included in the assessment;
- b) The assumptions are sound and reasonable;
- c) The proposed solutions are technically feasible and realistic;
- d) The timeframes for upgrades or connections are realistic; and
- e) There are any potential or actual issues that the planner and Hearings Panel need to be aware of.

2. Document considered

- Statement of Evidence of Trisha Simonson on behalf of Mowbray Group Limited and Andrew Mowbray – Submission 404 and 563 – On-Site Wastewater
- Statement of Evidence of Fraser McNutt on behalf of Mowbray Group Limited and Andrew Mowbray – Submission 404 and 563 – Planning

2.1 Limitations

This review is a limited desk top review carried out by reading the above documents and providing general comment on the suitability of the information to be relied upon and recommendations made at the Proposed Waikato District Plan hearing. No site visit has been undertaken and the information referred to in the documents and calculations have not been verified. The submission is for onsite disposal for wastewater, however consideration is to be made for connecting into the public network for wastewater, water and stormwater. Detailed knowledge of the constraints within the network was not available - further discussion with the network operator would be required to identify and address any specific constraints within the network.

Memorandum

3. Overview of technical matters

Developable Area

The ex-Matangi Dairy Factory site under the Operative District Plan is zoned for Light Industrial and is proposed to be zoned as Industrial in the Proposed District Plan. There is a small site (~0.8ha) to the north of the railway corridor which is currently Rural zoning.

Mowbray Group Limited (Mowbray) seek to change the proposed zoning for both of these areas to a 'mixed use' zone, known as the Matangi Mixed Use Zone (MMUZ). This is an area of approximately 5.2ha.

The submitter proposes providing an on-site wastewater system and setting aside land on site for the purposes of wastewater disposal.

In the evidence it is identified that the current daily discharge volumes exceed the Permitted Activity Rules of 3,000 l/day. It appears that the site will require consent from WRC for the current wastewater discharge and any additional development would then require a new discharge consent (section 9.2 of evidence).

On-site wastewater treatment

The submitter has reviewed the proposed re-zoning of the Proposed District Plan for the property to determine if the site can be serviced in terms of private on-site wastewater discharge.

A technical on-site wastewater capacity assessment was completed by the submitter, offering an on-site solution to account for some future development of the site.

The future volume of wastewater production from the MMUZ has not been provided within the evidence.

Public wastewater network and treatment

There is a public wastewater network and treatment plant within close proximity to the site. The submitter (Mr McNutt) has indicated that there is no planned upgrades of the existing Matangi wastewater infrastructure or associated funding in the Long-term Plan (LTP).

Watercare have advised that no further flow beyond the existing can be accommodated by the WWTP.

4. Assessment undertaken

Developable Area

In the evidence provided there are no areas provided for the Mixed Use Zoning identifying which areas are to be used for each zone e.g. business.

The submitter reviewed the proposed planning provisions and specifies that; the site shall retain a minimum level of permeable surfaces, new buildings would be connected to the new onsite wastewater treatment and disposal system and stormwater is to be managed via soakage, new subdivision lots shall connect to the public reticulated network for wastewater and stormwater.

On-site wastewater treatment

T. Simonson carried out a site investigation (9 September 2020) of the existing site, which confirm that wastewater generated from the existing buildings is currently treated by up to nine septic tanks, with a combination of discharge to ground soakage and overflow discharge to the existing stormwater system.

Memorandum

The site investigations carried out by the submitter have concluded that the site can take up to a volume of 24,500 litres of wastewater discharged per day to disposable effluent based on a pro rata of the land area used. These calculations have not been provided so are unable to be reviewed.

The submitter identifies that any development of the site beyond the identified 24,500 litre/day wastewater capacity could be managed by connection to the public reticulated system.

The submitter identifies that the current proposed zoning allows for heavy industrial, which could generate large volumes of wastewater, could not be supported, however smaller scale industrial activities could be. Therefore the proposed rezoning for mixed use zone is expected to represent a lower volume of wastewater than the heavy industries.

It is indicated that Mowbray Group engineers have calculated the current usage onsite in addition to a reasonable amount of future capacity that could occur through the proposed provisions of the proposed MMUZ and provided for this through additional onsite capacity. These calculations have not been provided in the evidence and not reviewed.

The submitter has concluded that the site can be serviced in terms of on-site wastewater discharge via a wastewater treatment system capable of producing secondary standard treated effluent (Advantex recirculating textile filter) with discharge to land, up to a total development design flow of 24,500l of wastewater per day (combined domestic and industrial flows). However I note that this assessment is based on a scaling up of the existing system performance and assumes that the current performance and condition of the system is acceptable. Further assessment of flows and on site investigations would be required to confirm the proposed system is feasible.

The proposed site plan shows that the site will need a local private reticulated network to carry the wastewater to the disposal field which is located on the northern side of the Cambridge Branch Railway. Permission will need to be obtained from KiwiRail to thrust under the railway network. Contact has been made with KiwiRail to understand the process. There is currently no access to this site and this would be required for going maintenance.

Wastewater reticulated network

There is no proposal to connect to the existing public wastewater network unless there is development beyond the 24,000l/day wastewater capacity.

The capacity and condition of the existing public reticulated network has not been reviewed. There is an existing pump station and rising main adjacent to the site which appears to service the few houses connected to the system.

Watercare have advised that no additional flow can be accepted by the existing WWTP and this will limit the discharge to the public network the site's current loading (not its potential loading under the Operative District Plan).

5. Adequacy of assessment

In general, the approach used by the submitter to show that the site can be service by onsite disposal is reasonable. The supporting technical reports and calculations have not been provided for this assessment. The size of future flows of wastewater from the MMUZ should be reviewed. As discussed in the evidence, any demand above this will need to connect into the public network, however the capacity of this network is to be confirmed and modelled. Watercare have identified that the public network does not currently have any capacity for any increase in flow.

The wastewater connection to the disposal area under the railway lines with Kiwirail could be developed but would need to come to an agreement with Kiwirail. Access to the northern portion of the site to the proposed disposal field from Tauwhare Road will need to be agreed and established with either the Council or the adjacent landowner.

Memorandum

I generally agree with the submitter that the mixed use zoning with a limitation on commercial floor area and light industrial activities only to be permitted. This would have a lower discharge than the proposed zoning of industrial.

Modelling of the wastewater network should be completed in the design phase for the site to confirm the design is within the disposal field limitations.

Stormwater discharge has not appeared to be considered in the review. If this is to be discharged to the ground, it could utilise a large portion of the land and soakage potential that has been proposed for wastewater discharge. If connection to the public network is required, modelling would need to be completed to confirm capacity in the existing system.

The water network has not been reviewed in the submission. Water demand should be completed for the site and Watercare are to confirm capacity to the site.

6. Conclusions

The submitters approach and findings are reasonable with consideration to on-site wastewater disposal.

My key further recommendations would be:

- Further information on the extent of the proposed uses within the sites is required to confirm the likely wastewater flows that could be generated and investigation to confirm the capacity of a land disposal system. This should be completed in the design phase.
- Review of the stormwater discharge from the site and an understanding if it is to be discharged through a reticulated system or discharged to ground. Confirmation that there will be adequate space for both stormwater and wastewater in the ground disposal field.
- Consideration to gaining future maintenance access to the disposal field on the northern side of the railway tracks due to close proximity to the at grade crossing.
- Confirmation of water capacity to the site and modelling should be completed in the design phase.
- Future development will be subject to future consents. The details of the discharge (water and stormwater) should be worked through at the consenting stage.

Memorandum

To: District Plan – Resource Management Policy Team, Waikato District Council
Date: 15 April 2021
From: Skip Fourie, Beca Ltd
Our Ref: 4214056-1680710091-12
Copy: Carolyn Wratt, WDC Consultant
Subject: Technical Specialist Review, Transport – Matangi

Experience and Qualifications

My full name is Gideon Jacobus Scheepers (Skip) Fourie.

I am an Associate Transportation Planner employed by Beca Ltd (Beca), a multi-disciplinary professional services consultancy firm based in New Zealand.

I hold a Bachelor (Honours) of Town and Regional Planning (2007) and a Masters degree specialising in Transportation Planning (2014) from the University of Pretoria in South Africa.

I have a total of 12 years' experience in the field of transportation planning and traffic engineering gained through 6 years of employment in South Africa, 2 years of employment in Dubai, United Arab Emirates and 4 years in New Zealand.

I have wide-ranging experience in traffic and transportation engineering fields, ranging from transport assessments, traffic modelling, safety audits, parking strategies, feasibility studies and business case writing.

1. Introduction and Purpose

Beca has been engaged by Waikato District Council (WDC) to review statements of evidence filed with the Council accompanying submissions seeking a change in zoning under the District Plan. This review provides high level commentary on the suitability of the information and recommendations to be relied upon at the Proposed Waikato District Plan (PWDP) hearing.

The purpose of this assessment is to consider the following aspects of the application:

- a. Has sufficient and appropriate information has been included in the assessment
- b. Are the assumptions sound and reasonable
- c. Are the proposed solutions technically feasible and realistic
- d. Are the timeframes for upgrades or connections realistic; and
- e. Are there any potential or actual issues that the planner and Hearings Panel need to be aware of.

2. Documents Considered

- Transport Assessment (TA) for the proposed Matangi Rezoning, prepared by BBO, dated 16 February 2021.

Limitations

As per the agreed scope, this desktop review has been carried out by reading the above documents and providing comment on the suitability of the information and recommendations to be relied upon at the PWDP hearing.

Memorandum

No site visits have been undertaken and the information referred to in the documents and calculations has not been verified in detail.

This is not a peer review of the TA, modelling and recommendations. Further assessment may be required.

3. Overview of Technical Matters

Proposal Overview

The applicant seeks to change the zoning of approximately 5.2 ha of land located in Matangi, Waikato from the current PWDP industrial and rural zoning to a mixed-use zone (Matangi Mixed Use Zone (MMUZ)). The MMUZ will enable repurposing of approximately 35,000m² GFA into a mix of industrial, commercial and retail activities.

On the basis of the district plan Permitted Activity thresholds, the expected trip generation for the MMUZ zoning would be approximately 405 trips per hour (two way) in the peak hours and approximately 2700 to 4000 trips per day (based on the peak hour being between 10% and 15% of the daily volume).

The requested MMUZ zoning is anticipated to generate fewer vehicle trips than possible under the current PWDP (notified) zoning.

Transport Assessment

The applicant has submitted an TA that provides assessment on the following traffic and transport topics:

- Site Description
- Existing Transport Environment
- Proposal Overview
- Trip Generation
- Transport Effects Assessment
- Alignment with Transport Strategies and Policies
- Conclusions
- Transportation Infrastructure Improvements recommended for Rezoning (applicable to both the PDP and MMUZ rules).

Transportation Effects Assessment and Proposed Mitigation Measures

Transport Effects Summary

The TA includes assessment in the following areas:

- Capacity Assessment / Traffic Modelling
 - Intersection capacity assessment
 - Permitted activity traffic generation cap calculations
- Parking and Loading
- Other Transport Modes
 - Rail

Memorandum

- A preliminary Level Crossing Safety Impact Assessment (LCSIA) has been carried out in order for KiwiRail to understand the potential effects of the proposal on the nearby level crossing)
- Walking
- Cycling
- Public Transport

Recommendations and Mitigation Proposed in Evidence

The following recommendations and mitigations are proposed by the applicant:

- That the level of Permitted Activity be not only restricted to floor and site coverage areas, but also subject to a cumulative traffic generation cap to ensure effects of the MMUZ remain no more than minor at worst.
- Any activity that causes the cumulative trip generation limits of 330 vph or 2200 vpd to be exceeded should trigger a resource consent requiring an Integrated Transport Assessment (ITA)
 - The Permitted Activity traffic generation cap relates to the intersection performing at no worse than LoS C on any movement, based on traffic volume predictions in the TA.
- An ITA should be required in support of any consent application to develop Site 2, due to the access separation distance to the railway level crossing being less than the required 30 m minimum.
- For maximum pedestrian safety a raised platform zebra crossing should be implemented as a package improvement with a south side footpath extension and a 40 km/h urban speed limit through the commercial precinct of the village
 - This safety improvement is considered warranted with either the PWDP zoning or the proposed MMUZ
- A reduced speed limit to 40 km/h within the commercial precinct of the village would improve safety for cyclists traveling on the road shoulders in the village. This further supports the TA recommendation that WDC considers reducing the urban speed limit to 40 km/h in the commercial area of Matangi.

Conclusion

The applicant considers that the proposed MMUZ will produce a better outcome for the Matangi community in terms of transport safety and function when compared to PWDP zoning that predominantly enables Industrial land uses.

4. Assessment Undertaken

The TA provides a good general summary of the traffic and transport considerations pertinent to the proposal, and the relevant technical matters are addressed. It includes detailed traffic modelling for the intersections leading to and providing direct access to the site.

5. Comment on Adequacy of Assessment

The approach taken by the submitter is appropriate, within the standard approach used throughout the industry and within the prescribed guidelines of a transport assessment.

Generally, the submitter has provided the relevant and required information in order to form a robust assessment of traffic and transportation effects.

Memorandum

I consider that the assessment of the traffic and transport related matters has been adequately completed.

6. Conclusions

I generally agree with the findings of the TA and the submitter's recommendations. I agree the proposed MMUZ has less potential transport impact than the current PWDP zoning based on the evidence provided in the TA.

It will be important to consider the design of the access intersections, level crossing safety and facilities for pedestrians and cyclists as part of a future development stage, e.g. subdivision or resource consent.

From a traffic and transportation perspective, assuming the recommendations in the TA are committed to, there are no additional potential or actual issues that the planner and Hearings Panel need to be aware of in considering the application for live zoning.