



FONTERRA LTD

**PROPOSED PLAN CHANGE –
WAITOA DAIRY
MANUFACTURING SITE
(NOISE)**

Application, AEE and S32 Evaluation.

13 November 2020

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REPORT INFORMATION

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1. INTRODUCTION

This report supports an application by Fonterra Limited ('Fonterra') to the Matamata-Piako District Council (the 'Council') for a Plan Change pursuant to Section 73(2) and Schedule 1 of the Resource Management Act 1991 (the RMA).

The Applicant is the owner and operator of the Waitoa Dairy Manufacturing Facility (the 'Facility') located to the north of the intersection of State Highway 26 and No 1 Road. The Facility is within the Industrial Zone and is currently the subject of a Development Concept Plan within the District Plan. The Concept Plan is intended to enable the operation and expansion of the facility subject to compliance with noise limits at a defined Noise Emission Control Boundary ('NECB'). The boundary extends beyond the area occupied by the Facility. Despite there being no history of complaints, regular assessment of noise levels has demonstrated that the Facility is exceeding the defined noise limits at a number of measurement points. The application for a Plan Change seeks to replace the current plan provisions with a new NECB and associated provisions that will provide an appropriate and enduring framework for managing noise emissions beyond the site boundary.

2. REPORT STRUCTURE

The report addresses the statutory requirements for a Plan Change under the relevant provisions of the RMA:

- Section 3 describes the existing environment affected by the Plan Change proposal.
- Section 4 identifies the issues to be addressed.
- Section 5 describes the Plan Change proposals.
- Section 6 sets out the processing requirements in respect of proposed plan changes.
- Section 7 provides the section 32 evaluation required for the Plan Change application.
- Section 7 sets out an assessment of environmental effects.
- Section 8 provides an Assessment of the Environmental Effects of the proposals.
- Section 9 provides an assessment against relevant planning documents.
- Section 10 summarises the consultation undertaken for the proposal.
- Section 11 provides a notification assessment.
- Section 12 summarises and concludes the report.

3. EXISTING ENVIRONMENT

The Facility is a long established industrial activity located adjoining and to the north west of the Morrinsville-Waitoa Branch Railway Line. First established in the 19th century, milk processing activity has progressively expanded to occupy an extensive site which is now served by vehicular access and car parking located to the west, via No1 Road, and rail access along the south eastern boundary, adjacent to State Highway 26. The Waitoa River defines the eastern boundary. Within the site, the energy centre supporting all on-site manufacturing activity is located mid-way along the south eastern boundary, close to the boundary and accessed via road and rail to receive coal deliveries. Large scale buildings accommodating milk driers are dominant visual elements, as are exhaust towers from processing activities. A recently constructed UHT production facility occupies the majority of the southern portion of the site between State Highway 26 and No 1 Road, on the site of the former Factory village.

The residential area of Waitoa village is situated in two enclaves located alongside and to the south east of the state highway, located primarily on Farmer Road and Ngarua Road. The majority of land between the two roads and fronting the state highway now consists of vacant sections following the acquisition and removal of former dwellings by Fonterra to create a buffer between the Facility and residential areas of the village. The remaining residential areas of the village consists of primarily single storey detached dwellings of variable age on generous sections. Boundary treatment is typically of permeable wire fencing and vegetation.

Topographically, the site and surrounding area is generally flat, with dairy pasture extending around the north and western site boundaries, beyond No 1 Road. Mature vegetation extends along the south-eastern boundary, parallel with the state highway and along the Waitoa River.

While the Facility and its immediate curtilage is located within the Industrial Zone, land to the north-west of No 1 Road, east of the Waitoa Stream and south east of State Highway 26 is within the Rural Zone.

4. ISSUE IDENTIFICATION

The Facility makes a significant contribution to the local and regional economy.

The Waitoa site is one of two key manufacturing assets owned by Fonterra in the Matamata-Piako District, the other being Morrinsville Dairy Manufacturing site. Combined, these assets (amongst others in the District) have a value of \$1.5B which equates to \$650M of production value per annum.

In the 2019/20 milk processing season, the Waitoa site processed over 420 million litres of milk into 78,000 tonnes of product being primarily nutritional and milk powders.

There are about 1,250 farms in the District. Dairying in the District equates to 2,400 direct jobs and 15,000 indirect jobs, and accounts for 15 percent of all jobs in the District. Put in the national context, Matamata-Piako District contributes approximately 5.8% of all jobs within the New Zealand dairy sector. The Waitoa Site itself employs over 400 people.

The Facility is therefore, of undoubted significance to the regional economy. The Waikato Regional Policy Statement requires that Regionally Significant Industry is recognised and that provision is made for their continued operation and expansion.

The site is currently the subject of District Plan provisions based on a Development Concept Plan which provides a supportive framework enabling the operation and expansion of the facility subject to compliance with daytime and night time noise limits at a defined NECB. This extends beyond the area occupied by the Facility and runs parallel with the south-eastern side of State Highway 26.

The NECB was established through the preparation of the current Operative District Plan. Rather than being defined through modelling of the then existing or predicted noise environment, the approach taken was rather more pragmatic. It recognised the existing high noise environment along the state highway corridor and also the proximity of residential dwellings fronting the State Highway. The NECB was defined to incorporate the state highway corridor but exclude the privately owned dwellings adjoining its south-eastern side. Operationally, the intention was that opportunities would be taken through site development and the replacement and refurbishment of assets to progressively reduce noise emissions from the Facility, to a level that would achieve compliance with the NECB. Thus, compliance was a target rather than being achievable at the date that the plan provisions became operative.

The current District Plan provisions reflect this approach by requiring that new activities established after 1993 should, by June 2000, ensure that cumulative noise emissions should comply with the stated limits at the NECB.

In parallel with on-site noise reduction measures, Fonterra progressively acquired and removed dwellings located along the state highway, in close proximity to the Facility. Ongoing development of the Facility has followed an '*acoustic budget*' approach, whereby the design specification of new activities has been driven by the need to ensure compliance for any new activity, including taking account of the cumulative effects on total noise emissions from the site. For example, the acoustic design requirement in respect of the UHT Plant consented in 2013 stipulated a requirement to achieve a higher level of noise reduction than might have been required for the individual building, to ensure that cumulative noise emissions would not increase.

The Facility is subject to annual noise emissions assessment and historical noise levels at defined measurement points illustrate a trend of gradual noise reduction, particularly in respect of measurement points located within the residential areas of Waitoa Village. However, the Facility has been unable to reduce noise emissions to achieve compliance with the NECB. As District Plan rules have the force and effect of a regulation and are enforceable, continued infringement of the standards at the NECB is not acceptable.

Detailed assessment by Fonterra's acoustic advisors has identified noise sources likely to be contributing to current noise levels. Options for reducing noise emissions from these sources have been investigated and capital works has been agreed by Fonterra that will be implemented to achieve a reduction in noise levels. Community consultation has also identified noise sources which, whilst probably not exceeding the noise standard, are nevertheless a source of some annoyance (e.g. reversing alarms on forklifts). These aspects are also being addressed through on-site management measures. Longer term site development and the replacement and refurbishment of existing assets will also provide the opportunity to implement measures to achieve reduced noise levels (e.g. the specification of the Drier 3 humidifier was driven by acoustic assessment). However, information available to date from Fonterra's acoustic advisors indicates that because of the proximity of major immovable plant (Nutritional Products building housing Driers 1 and 2 and Power House) close to the south eastern boundary of the site, full compliance at the current NECB is impracticable.

Fonterra is therefore seeking to alter the District Plan provisions to establish a new NECB and associated rules through a private plan change process. The proposed plan change is being promoted in parallel with Fonterra's capital programme for on-site noise mitigation. The on-site mitigation works to reduce noise emissions from the Speciality Powders Exhaust and D1/D2 Cooling Towers will be completed by the end of 2020.



The process followed in preparing this Plan Change is consistent with Rule 5.2.5 of the District Plan which states:

That any variation or change to existing development concept plans and new scheduled sites shall develop a noise control boundary and noise controls by reference to rule 1.4.2(i).

Rule 1.4.2(i) states:

The Council shall ensure that existing activities are not adversely affected by the proposal. In determining appropriate noise levels, Council shall have regard to the noise environment of the locality in which it is proposed to site the facility and the practicality of reducing noise from the utility components;

The establishment of an enduring NECB and associated plan provisions will ensure that there is a practicable framework of provisions that will ensure that the District Plan continues to provide for the protection of local amenity values whilst also enabling the continued operation and expansion of the Facility. A Plan Change process is the most efficient and effective process to achieve these outcomes and will provide both Fonterra and the local community with certainty regarding acceptable noise emissions from the site. The changes to the District Plan are specific to the relationship between the operative Development Concept Plan and adjacent Waitoa community and have no effect on any provisions applying elsewhere within the District.

5. THE PLAN CHANGE PROPOSAL

The purpose of the Plan Change is to establish a long term NECB which provides certainty regarding acceptable levels of amenity for the local community and enables the ongoing operation and expansion of the Waitoa Dairy Manufacturing Facility.

The Plan Change seeks to incorporate the proposed changes into the District Plan by the following means:

- Amendments to the existing Development Concept Plan diagram; and
- Amendments to Development Concept Plan Noise provisions; and
- Amendments to Performance Standards for new noise sensitive activities.

No changes are required or proposed in respect of the Objectives and Policies of the District Plan.

The proposal is to amend the Development Concept Plan to:

- define a new NECB based on 45dBA;

- amend the noise provisions to relate to the new NECB;
- amend the noise provisions to provide for off-site mitigation within the NECB; and
- amend the noise standards to provide clarity regarding the noise measurement descriptor and ensure consistency with the emerging national standards.

An amendment is also proposed to include a new rule regarding new noise sensitive activities locating within the proposed NECB.

The acoustic assessment relating to the proposed amendments to the noise provisions is included in **Appendix A**. The proposed amended provisions are described in **Appendix B**. The proposed NECB is shown in **Appendix C**. The Development Concept Plan is embedded into the District Plan by way of referencing in Schedule 5 and inclusion within Part C of the Plan which includes all Planning Maps, Structure Plans, Development Concept Plans and provisions relating to Matamata Airport.

For completeness, a copy of the existing Development Concept Plan is provided in **Appendix D**. **Appendix E** provides a copy of the response to consultation with iwi representatives, confirming their support for the proposals.

6. PROCESSING REQUIREMENTS

Under s25(4) of the RMA, the Council may choose to reject the Plan Change in whole or in part on certain grounds. With respect to the matters listed under s25(4)(a) - (e), it is considered that the Council can accept the Plan Change for the following reasons:

- The Plan Change is not frivolous or vexatious;
- The substance of the Plan Change request has not been given effect to or rejected by the Council or the Environment Court;
- The Plan Change has been prepared under sound resource management practice;
- The Plan Change is not inconsistent with the purpose of the Act; and
- The Plan Change is being made more than 2 years after the date on which the Matamata-Piako District Plan was made operative.

No other statutory approvals are required.

The Plan Change process is subject to the provisions in the RMA, including Part 2, the Purpose and Principles, and Sections 31, 32, 74 and Part 2 of Schedule One. Part 2 of Schedule One links the private plan change process back to the provisions of Part 1 (Council



initiated plan changes) via clause 29, meaning there is a degree of commonality between both.

However, it is also important to take account of case law in terms of how the framework should be applied in respect of Part 2 of the Act. In particular, the Supreme Court 2014 decision *Environmental Defence Society Inc. vs the New Zealand King Salmon Co Ltd* provides guidance as to how Part 2 of the RMA applies to plan changes. It found that there was no need to refer back up the hierarchy of plan provisions to Part 2, because other high-level planning instruments are deemed to have given effect to Part 2 at the national, regional or local level.

The Court also noted that there are three exceptions to this general rule:

- Invalidity, i.e. the higher order document may be illegal.
- Incomplete coverage, i.e. the higher-level document may not fully cover the issue being considered.
- Uncertainty of meaning, i.e. the higher-level document is not clear in its application to the issue.

In this case, the relevant planning instruments that are being applied are the RPS and the District Plan.

The question to be considered is the extent to which they can be relied on as incorporating all relevant Part 2 matters, or whether any of the above exceptions apply, meaning that Part 2 needs to be revisited. In terms of timing, the RPS was in place before the District Plan was made operative.

In terms of the issues relating to the operation and expansion of the Facility the objectives and policies of the RPS and District Plan provide comprehensive coverage and are valid documents. As set out below, assessment of the two documents concludes that they are consistent in respect of the provisions applying to the Facility and land within the Development Concept Plan area. As the documents are both clear and certain in respect of the matters addressed through the proposed Plan Change, and the plan change does not propose any changes to the operative policies or objectives, there is no requirement for further detailed assessment of Part 2 matters.

7. SECTION 32 EVALUATION

Section 32 of the RMA imposes a duty that before making a decision on a plan change application, an evaluation must be carried out.

An evaluation report must –

- (a) *Examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act; and*
 - (b) *Examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by*
 - i. *Identifying other reasonably practicable options for achieving the objectives; and*
 - ii. *Assessing the efficiency and effectiveness of the provisions in achieving the objectives; and*
 - iii. *Summarizing the reasons for deciding on the provisions; and*
 - (c) *Contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal.*
- An assessment under subsection (1)(b)(ii) must –
- (a) *Identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for –*
 - i. *Economic growth that are anticipated to be provided or reduced; and*
 - ii. *Employment that are anticipated to be provided or reduced; and*
 - (b) *If practicable, quantify the benefits and costs referred to in paragraph (a); and*
 - (c) *Assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.*
- If the proposal (an **amending proposal**) will amend a standard, statement, regulation, plan or change that is already proposed or that already exists (an **existing proposal**), the examination under subsection (1)(b) must relate to –
- (d) *The provisions and objectives of the amending proposal; and*
 - (e) *The objectives of the existing proposal to the extent that those objectives –*
 - i. *Are relevant to the objectives of the amending proposal; and*
 - ii. *Would remain if the amending proposal were to take effect*

7.1 OPTIONS CONSIDERED (SECTION 32(1(B)))

Having established that the existing District Plan provisions are incapable of being complied with, several options have been considered to address the issues.

- On site noise reduction measures.
- Wait for the next District Plan review.
- Replace the existing provisions by way of a private plan change.

Each of the options is required to be evaluated to determine which is the most appropriate method for achieving the District Plan objectives. Accordingly, it is necessary to identify these objectives and explain their relevance to the issues being addressed.

Section 2.4 of the District Plan sets out the Sustainable Management Strategy which comprises a series of objectives, described as outcomes. Of direct relevance to the issues affecting the Waitoa Facility is Objective 2.4.2.01 which states:

To manage activities in a manner that gives certainty to the public as to the potential location and effects of activities.

Policy P1 directs that development controls, performance standards and 'other methods' will be used as follows:

To implement effective separation between incompatible activities while recognising that some existing activities may not be able to provide effective separation within their sites.

The Development Concept Plan is specifically designed to enable the integrated and coordinated development of the Waitoa Facility in a manner that will provide physical separation from sensitive receivers. The Waitoa Facility and Waitoa Village form part of an existing environment. The issue that needs to be addressed in this instance, is the interface between these activities. The DCP achieves this through the identification of 'existing' and 'future' development areas and identifies a management framework, including the NECB, for addressing effects likely to extend beyond the boundaries of the Facility.

In respect of the Environment, Objectives 3.5.2.3.01, 3.5.2.3.02 and 3.5.2.3.04 state:

O1

To ensure that residences are free from the effects of unreasonable and excessive noise, odour, dust, glare and vibration.

O2

To provide healthy and safe working, living and recreational environments by avoiding and mitigating the effect of excessive noise, vibration, odour and dust

O4

To ensure that lawfully established activities which generate minor nuisance effects are not unreasonably compromised by the proximity or action of neighbouring land-users or non-rural activities.

The associated policy framework explains the need to protect higher amenity standards in respect of residential areas. This is to be achieved through development controls and performance standards designed to maintain a healthy and safe environment, recognising that whilst existing activities should take all reasonable steps to internalise any nuisance effects, some degree of external effect is accepted. The existing Development Concept Plan has been developed as the preferred method for giving effect to that policy direction to ensure that noise emissions beyond the site are not 'unreasonable' or 'excessive' and will maintain health and safety.

7.1.1 Option 1

This option would retain the existing District Plan provisions and require Fonterra to undertake further steps to reduce noise emissions to achieve compliance with the existing NECB. Regular monitoring has demonstrated that exceedance of the existing provisions has occurred over a significant period of time. On-site noise reduction measures have been implemented, including the acoustic budget approach taken in respect of new plant, equipment and buildings.

This approach has been employed in respect of new assets and buildings and also where significant assets are approaching the end of their design life or require periodic maintenance and renewal. For example, the new UHT plant and recently constructed dehumidifier were both designed according to an acoustic budget approach, the effect of which is that the investment has been able occur without increasing overall noise emissions from the site.

Significant capital has been committed to further noise reduction measures associated with the Speciality Powders exhaust and D1/D2 cooling towers, both of which will achieve reductions in overall noise emissions at the NECB. The approach is capable of wider application as existing plant and equipment approaches the end of its design life or requires significant maintenance although there are limitations on the extent to which noise emissions can be practically reduced due to the location of critical plant in relation to potentially sensitive receivers.

Some key noise sources are located in very close proximity to the south-eastern boundary of the Facility are not capable of being moved. These sources relate to the Nutritional

Products building which houses Driers 1 and 2, and the Power House, which supplies energy to the whole site. These activities cannot be removed or relocated within the site without a fundamental restructuring and reconfiguration of the site and its associated infrastructure, much of which lies below ground. The cost and complexity of such an approach would be significant and would not be undertaken before first considering whether investment in the capacity of alternative existing facilities would be more efficient.

Changes have been and will continue to be made to achieve the reduction in noise emissions from these key noise sources. For example, coal loader movements have altered significantly. However, opportunities to reduce noise emissions from other sources in this location are limited by the type of plant, its anticipated asset life and its location and height relative to sensitive receivers. Boundary treatment would be ineffective in reducing noise levels. Fonterra's acoustic advisors have explained that, notwithstanding the potential to achieve some reduction over time as plant and equipment is replaced, the reduction of noise emissions from these sources close to the boundary to achieve compliance with the current NECB is impracticable.

Consequently, the retention of the current NECB and associated provisions would require resource consent to retain the existing noise sources causing the exceedance and for any additional activities that could not, in themselves or cumulatively, achieve compliance.

The current NECB boundary and associated provisions do not, therefore appropriately relate to existing on-site activities and there is a continuing risk of complaint and potential enforcement action.

Compliance with the NECB is not achievable without the removal of existing noise sources which are critical to the manufacturing activities undertaken on the site. These cannot be moved without fundamentally reconstructing the site. Compliance is therefore impracticable.

As such, existing dwellings within the Waitoa village will continue to be exposed to levels of noise that exceed the levels anticipated by the District Plan. The current proposal has identified a number of properties that require further assessment to establish whether additional mitigation measures are required in order to provide an acceptable internal noise environment. This level of uncertainty does not assist Council in undertaking its statutory functions in respect of the management of resources and the protection of residential amenity. Option 1 is impracticable as a means of achieving compliance with the existing NECB. It will not resolve the issue and will not achieve the District Plan Objectives intended to provide certainty and the protection of residential amenity.

In terms of the ongoing operation and expansion of manufacturing activities and associated employment, resource consent and associated costs would be required in respect of any

activity that could not, in itself or cumulatively, demonstrate compliance. An uncertain consenting framework would not be conducive to major economic investment decisions and the costs of participating in consenting processes would fall on both Fonterra and the wider community.

Overall, the retention of the existing provisions would provide little, if any, certainty to Fonterra or the wider community and would this uncertainty, cost and potential delay would weigh heavily in decisions regarding longer term investment in the Facility.

7.1.2 Option 2

This option perpetuates the existing situation of non-compliance with the existing plan provisions and potential adverse effects on the health and social well-being of the community in the event that properties are receiving unacceptable levels of internal night time noise. It is understood that an opportunity to address the issue may present itself as part of wider proposals by the Council to implement the requirements of the National Planning Standards ('NPS'). The implementation of the NPS changes in respect of industrial areas within the District is expected to be addressed by 2024. However, this timeframe relates to the relatively straightforward transition of the current plan to the new format outside of the usual Schedule 1 process. There is no certainty, and indeed it is unlikely, that Council would choose to complicate and potentially delay that process through the incorporation of changes requiring close scrutiny.

Outside of the NPS changes, a Council initiated plan change would be required. While the costs of such a proposal might well be borne by the Council and its broader population base rather than by Fonterra and its immediate community, the resolution of the issue could take a considerable period of time.

In the interim, the current provisions do not provide any level of certainty that will enable long term investment decisions to be made either by Fonterra or by individual property owners and there is a continuing risk of complaint and enforcement action. Such an environment would not support continued major investment in the Facility, in terms of either the replacement of plant, or the expansion of its production capacity. As such, Option 2 does not achieve the desired level of residential amenity stated in Objectives 3.5.2.3.01, 3.5.2.3.02 and 3.5.2.3.04, and creates a level of uncertainty in respect of economic investment and employment growth which will not achieve Objective 2.4.2.01.

7.1.3 Option 3

Amending the District Plan through a private plan change process provides a specific focus on the issues relating to the current NECB. While this places a financial burden on Fonterra to promote the plan change and will also result in potential costs to the wider community

in terms of their participation in the process, it allows a direct dialogue between Fonterra, the directly affected community and Council, to ensure that practicable solutions can be found that will establish appropriate plan provisions to protect residential amenity whilst also enabling the continued operation and expansion of the Facility. Such an approach will contribute towards the achievement of Objectives 3.5.2.3.01, 3.5.2.3.02 and 3.5.2.3.04.

The proposed rules focus on the achievement of an acceptable internal noise environment that provides a comfortable level of amenity within habitable rooms and, in particular, minimises the potential for sleep disturbance. No additional measures are considered necessary for the external environment given that such areas will predominantly be used during the daytime hours, during which period the District Plan establishes a 50dBA noise limit.

The proposed rules require an assessment to be made of the internal noise environment of dwellings located within the NECB, enabling a clearer understanding of the actual effects of the noise emissions and the nature of works that will establish an acceptable level of internal noise reduction. The rule sets out a process and specific timeframes and obligations that will provide certainty to all parties, with the costs being borne by Fonterra.

The proposed Rules framework adopts L_{Aeq} as the descriptor of sound in replacement of the L_{10} descriptor used in the current plan provisions. The proposal reflects the approach set out within NZS 6802:2008, Acoustics-Environmental Noise which establishes the descriptor as the most appropriate for the measurement of continuous sound. The National Planning Standards require that Territorial Authorities amend their District Plans by 2024 to adopt a standardised approach to noise assessment and measurement based on NZS 6802:2008. Accordingly, the adoption of this approach in the Proposed Plan Change provides for the early implementation of the National Planning Standards and is a more efficient and effective approach than deferring the matter for future attention.

The proposed performance standards relate to internal noise levels within habitable rooms (as defined in the National Planning Standards) and specify a requirement in respect of existing dwellings within the NECB, to achieve 35dBA L_{Aeq} in respect of bedrooms and 40 dBA L_{Aeq} in other habitable rooms. Actual noise levels are to be determined through property specific assessments funded by Fonterra and any proposed measures to achieve the specified levels will be undertaken by Fonterra, including the provision of mechanical ventilation where the levels can only be achieved with windows closed.

The performance standard required to be achieved in respect of existing dwellings imposes a significant obligation on Fonterra in terms of potential internal mitigation measures as it provides a higher level of acoustic insulation than is required by current Plan provisions (Rule 5.2.9ia) requiring the insulation of new noise sensitive activities located close to state

highways. As such, the standard will provide a high level of comfort and amenity for occupants whilst minimising the potential for reverse sensitivity effects, consistent with Objectives 3.5.2.3.01, 3.5.2.3.02 and 3.5.2.3.04.

The proposed standard in respect of new dwellings being located within the NECB recognises that new occupants will be moving into an area already affected by noise emissions from a regionally significant industrial activity, thereby increasing the potential for reverse sensitivity effects. In these circumstances, the policy direction set by the Regional Policy Statement is that such effects should be avoided or minimised. The proposals do not alter the activity status of new dwellings but will ensure that the potential for sleep disturbance is avoided. In practical terms, the requirement is highly likely to be met in any event through Building Code compliance. As such, it does not place an unnecessary or unreasonable burden on potential developers but will ensure that the aims of Objectives 3.5.2.3.01, 3.5.2.3.02 and 3.5.2.3.04 are met.

Increased certainty resulting from an enduring framework of provisions to manage noise will support Council in undertaking its statutory functions and will enable long term decisions to be made by property owners, and by Fonterra in respect of investment in plant renewals, upgrades or expansion in operational capacity and related employment growth.

7.1.4 Summary

Retaining the current District Plan provisions and relying on on-site noise reductions measures will not address the issue. There is no certainty regarding the timing of such measures and the specialist advice is that full compliance is impracticable in any event.

Deferring the matter until a district plan review is likely to take a considerable period of time. Option 3 is therefore, the preferred option as it will directly address the issue and provide resolution within the shortest timeframe.

While the costs of the process will largely fall on Fonterra and the directly affected community rather than on the wider ratepayer base, the specific focus will enable direct dialogue between the parties which could potentially minimise costs to any party.

Option 3 (Private Plan Change) is the most appropriate in terms of enabling Fonterra and affected property owners the required level of certainty to make long term investment decisions and for Council to undertake its statutory functions.

8. ASSESSMENT OF ENVIRONMENTAL EFFECTS

The proposed Plan Change has a sole focus on the management of noise emissions from the existing Facility. Analysis of the existing and predicted noise emissions that arise or could arise from planned development within the Development Concept Plan area has been undertaken by Marshall Day Acoustics. Marshall Day Acoustics has a detailed understanding of the existing site operations and its acoustic performance, having been involved in the preparation of annual monitoring reports for a number of years.

This assessment provided as part of the proposed Plan Change has confirmed that changes are required to existing on-site plant and equipment to reduce noise levels from those existing. The nature of the required changes has been investigated by Fonterra to identify what would be practicable, having regard to cost, operational and physical limitations. This has resulted in committed capital expenditure in plant upgrade to achieve noticeable noise reductions. The works need to be coordinated with on-site manufacturing operations and are programmed for completion by the end of 2020. When complete, the works will reduce noise levels significantly below those recorded through annual monitoring over recent years.

Despite these improvements, full compliance with the current noise standards applying at the existing NECB will still not be achievable due to the proximity of the noise sources to the NECB boundary. These noise sources are fixed assets (Driers 1 and 2, central cooling tower and the Powerhouse) which are critical to the operation of the Facility. The reconfiguration of the site to relocate these activities elsewhere within the DCP area would require fundamental redevelopment of the site and its associated infrastructure and would be uneconomic. Fonterra is therefore committed to further investigation of the potential for on-site noise reduction measures as part of the consideration of options for changes to or the replacement of existing plant, or the procurement of additional plant as part of the expansion of manufacturing and processing activity.

The investigation of further options for noise reduction will occur but this will take time. Specialist advice is that no practicable on-site noise reduction measures would enable compliance with the current NECB. In the interim, noise emissions from the current known environment require management to address their effects beyond the site.

Taking account of the committed expenditure to noise reduction measures that will occur by the end of 2020, the assessment identifies a new NECB based on achieving 45dB L_{Aeq} noise levels. As the Facility operates on a 24-hour basis, associated noise levels are generally constant. It is not proposed to establish a separate daytime noise standard or

control boundary as the existing and anticipated daytime noise emissions from the Facility will be below the existing District Plan noise standards of 50dBA.

The amended NECB includes a number of residential properties not owned by Fonterra which could be exposed to night time noise levels above 45dB L_{Aeq} . The aim of the proposed plan provisions is to ensure that noise received internally from the Facility does not result in adverse effects on residential amenity. A key focus is to ensure that noise received internally by any existing dwelling is not at a level that could result in sleep disturbance i.e. above 35dB L_{Aeq} .

The proposed provisions therefore establish a clear mechanism for the further assessment of effects on dwellings within the proposed NECB to identify whether they require any modification to achieve an acceptable internal acoustic environment. The proposed rules impose a process, timeframes and requirements on Fonterra to undertake mitigation measures, including the provision of mechanical ventilation where acceptable internal noise levels can only be achieved when windows are closed. The Acoustic Assessment provided in Appendix A explains that this approach will provide an acceptable level of acoustic amenity for residential neighbours, including ensuring that they are protected from levels that could result in sleep disturbance.

The proposed provisions which will apply to the NECB reflect the most recent versions of the New Zealand Standard for the measurement of noise (NZS 6801:2008 Acoustics – Measurement of Environmental Sound) which changes the L_{10} noise descriptor currently used in the Development Concept Plan for operational sound to L_{Aeq} , and also updating the reference from the L_{max} descriptor to L_{AFmax} . The New Zealand Standard recognises the A-weighted equivalent continuous sound level (L_{Aeq}) as the acoustic index that best represents the community response to noise as opposed to the L_{A10} acoustic index used in previous standards and in the Development Concept Plan. As National Planning Standards are rolled out in respect of District Plan preparation, the L_{Aeq} acoustic index will be required to be adopted by the Matamata-Piako District Plan by 2024 at the latest.

Regardless of this direction, it is important to understand the effects of the change in the descriptor to determine whether any additional or alternative provisions are required. The relationship between the L_{A10} index and the L_{Aeq} index is dependent upon the nature of the sound source under consideration. Typically, for constant sound sources, the difference between L_{Aeq} and L_{A10} is an increase of 2 to 3 decibels or less; as is the case for sound emissions from the Waitoa Facility. A change of 2 decibels is generally considered to be imperceptible. A change of 3-4 decibels is generally considered to be just perceptible.

Marshall Day Acoustics have provided a comparison of existing and predicted noise levels using both the L_{Aeq} and L_{A10} descriptors. Their analysis, which is included in Appendix A, illustrates no significant difference in the positioning of the NECB using either descriptor.

Accordingly, the proposed NECB is based upon application of the L_{Aeq} descriptor and has, where practical, been defined to follow property boundaries, thereby including full properties even where they may be only partially affected.

Noting that, in conjunction with committed on-site noise reduction measures, the proposed provisions will result in a significant reduction in noise levels from those recorded over recent years under which there have been no recorded complaints, the proposed Plan Change will provide an effective framework for ensuring that no adverse effects will arise in respect of acoustic amenity.

9. STATUTORY ASSESSMENT

Hauraki Gulf Marine Park Act

As the Waitoa site is located within the Catchment for the Hauraki Gulf, regard must be had to sections 7 and 8 of the Hauraki Gulf Marine Park Act. These sections recognise the national importance of the Hauraki Gulf, and establish the importance of the management of the Hauraki Gulf, its islands, and its catchments. The proposed Plan Change has no effect on the nature of activities that can be undertaken pursuant to the Development Concept Plan; its sole focus is on the management of noise emissions from authorised activities. As such, the Plan Change will have no adverse effects on the Hauraki Gulf, and does not conflict with the recognition of the national importance or management of the Gulf.

National Policy Statements or NZ Coastal Policy Statement

There are no relevant national policy statements or New Zealand coastal policy statements of relevance to the proposal.

National Environmental Standards

Given the specific focus of the proposed Plan Change on the management of noise emissions from the site, there are no national environmental standards of relevance to the proposal.

Waikato Regional Policy Statement 2016

The Waikato Regional Policy Statement (RPS) sets out the strategic RMA framework for the identified issues of significance, and resultant priorities and outcomes sought to achieve the integrated management of the natural and physical resources of the Waikato Region.

The RPS specifically defines a 'regionally significant industry' as:

Means an economic activity based on the use of natural and physical resources in the region and is identified in regional or district plans, which has been shown to have benefits that are significant at a regional or national scale. These may include social, economic or cultural benefits.

In this case, the existing Facility forms a significant part of the dairying industry which is of both regional and national significance. As such, the provisions that relate to 'regionally significant industry' are directly relevant, as are those that provide direction of general application within the region.

The objectives and policies in the RPS that are particularly relevant to the Proposed Plan Change are discussed below:

Objective 3.2 - Resource Use and Development

Recognise and provide for the role of sustainable resource use and development and its benefits in enabling people and communities to provide for their economic, social and cultural wellbeing, including by maintaining and where appropriate enhancing:

- a) access to natural and physical resources to provide for regionally significant industry and primary production activities that support such industry;*
- b) the life supporting capacity of soils, water and ecosystems to support primary production activities;*
- c) the availability of energy resources for electricity generation and for electricity generation activities to locate where the energy resource exists;*
- d) access to the significant mineral resources of the region; and*

e) the availability of water for municipal and domestic supply to people and communities.

Objective 3.12 relates to the Built Environment, stating:

3.12 Built environment

Development of the built environment (including transport and other infrastructure) and associated land use occurs in an integrated, sustainable and planned manner which enables positive environmental, social, cultural and economic outcomes, including by:

- a. promoting positive indigenous biodiversity outcomes;*
- b. preserving and protecting natural character, and protecting outstanding natural features and landscapes from inappropriate subdivision, use, and development;*
- c. integrating land use and infrastructure planning, including by ensuring that development of the built environment does not compromise the safe, efficient and effective operation of infrastructure corridors;*
- d. integrating land use and water planning, including to ensure that sufficient water is available to support future planned growth;*
- e. recognising and protecting the value and long-term benefits of regionally significant infrastructure;*
- f. protecting access to identified significant mineral resources;*
- g. minimising land use conflicts, including minimising potential for reverse sensitivity;*
- h. anticipating and responding to changing land use pressures outside the Waikato region which may impact on the built environment within the region;*
- i. providing for the development, operation, maintenance and upgrading of new and existing electricity transmission and renewable electricity generation activities including small and community scale generation;*
- j. promoting a viable and vibrant central business district in Hamilton city, with a supporting network of sub-regional and town centres; and*
- k. providing for a range of commercial development to support the social and*

economic wellbeing of the region.

To achieve Objectives 3.1 and 3.12, Policy 4.4 provides specific policy direction in respect of regionally significant industry, stating:

The management of natural and physical resources provides for the continued operation and development of regionally significant industry and primary production activities by:

- a) recognising the value and long term benefits of regionally significant industry to economic, social and cultural wellbeing;*
- b) recognising the value and long term benefits of primary production activities which support regionally significant industry;*
- c) ensuring the adverse effects of regionally significant industry and primary production are avoided, remedied or mitigated;*
- d) co-ordinating infrastructure and service provision at a scale appropriate to the activities likely to be undertaken;*
- e) maintaining and where appropriate enhancing access to natural and physical resources, while balancing the competing demand for these resources;*
- f) avoiding or minimising the potential for reverse sensitivity; and*
- g) promoting positive environmental outcomes.*

The policy recognises that regionally significant industrial activities have the potential to result in adverse effects beyond their boundaries. Where this occurs, the approach that is to be taken is to ensure that such effects are avoided, remedied or mitigated and that positive outcomes are promoted. The policy is directly relevant to the proposed Plan Change. Annual monitoring of the Facility has identified that the noise limits at the current NECB are consistently exceeded. Fonterra has undertaken a detailed assessment to identify potential noise sources and, through rigorous analysis of options for reducing emissions from these sources, has identified two key capital projects that will result in a noticeable reduction in noise levels received by the local community. All existing properties will benefit from the proposed works. For specific properties, the level of noise reduction could well result in the establishment of an acceptable internal noise environment, even with open windows. The proposed plan provisions provide for this to be established through an acoustic assessment to be funded by Fonterra. Where this demonstrates that additional measures are required to ensure that internal noise levels will not result in sleep

disturbance, the proposed provisions will require Fonterra to undertake the necessary works if requested by the property owners.

In terms of the Objectives and policies outlined in the RPS, the proposed Plan Change will:

- *Facilitate the continued operation and expansion of dairy manufacturing activities on the site;*
- *Establish an appropriate framework for the management of noise emissions to protect the acoustic amenity of the local community;*
- *Provide certainty to Fonterra to enable continued investment in the site;*
- *Provide certainty to the wider community regarding acceptable levels of acoustic amenity;*
- *Assist Matamata-Piako District Council in undertaking its statutory functions under the RMA;*
- *Assist in the management of potential reverse sensitivity effects;*
- *Improve the acoustic amenity of the site and surrounding environment;*
- *Give effect to the RPS direction to provide for the development of a regionally significant industry.*

Overall, the proposed Plan Change is consistent with and will give effect to, the objectives and policies of the RPS.

Waikato Regional Plan

There are no Regional Plan provisions of relevance to the proposal.

Matamata – Piako District Plan

The proposed Plan Change does not involve any changes to the objectives, policies or general rules of the Operative District Plan. As the sole focus of the proposal is on the replacement of noise management rules within an existing, site specific, Development Concept Plan, the Plan Change will retain the structure and content of the District Plan in all respects.

10. CONSULTATION

Fonterra and its consultant advisors met with staff from Matamata-Piako District Council (Ally van Kuiyk and Steve Turfrey) on 10th July 2019 to discuss the company's intention to promote a private plan change as part of a package of measures including on-site mitigation measures. At that stage, the detail of the proposed measures could not be confirmed as they would form part of an internal review process to determine what could be achieved taking account of asset condition, operational considerations and capital investment.

Subsequently, Fonterra undertook the necessary internal review process from which it was able to confirm capital investment in the mitigation of noise emissions from the Speciality Powders Exhaust located midway along the south-eastern boundary of the site. Acoustic assessment of the effects of these works was undertaken and contracts confirmed for the proposed works to be completed by the end of 2020. The assessment of the predicted NECB resulting from the works was the subject of further discussions with Matamata Piako staff (Dennis Bellamy) and its acoustic consultant (Neville Hegley) on 18 November 2019.

These discussions explained the process which had led to the identification of the proposed on-site mitigation works and included a site walk-over to identify the location of the works and other noise sources. The effects of the proposed works in respect of a revised NECB were explained and discussed. Fonterra explained its commitment to continuing investigation of the potential for on-site noise reduction in conjunction with the maintenance and replacement of existing assets and the procurement of new plant and equipment. However, this would occur over an extended timeframe. While it is possible that a future Plan Change or District Plan Review process might be able to incorporate a more tightly defined NECB, there is currently no reliable information on which to base any assessment of the scope and effectiveness of these additional on-site reduction measures.

Council explained the need for the plan change documentation to explain how any proposed changes to the NECB compare to the existing plan provisions, noting the proposed change in the metric used for measurement. The proposals have addressed this requirement.

Consultation with the wider Waitoa community occurred on 26 November 2019 as part of a regular Community Liaison arrangement. The meeting was attended by six local residents, some residing at Ngarua Road and some along State Highway 26. While the meeting had a broad agenda, a specific presentation was made in respect of the proposed Plan Change, explaining that the proposal is being made as a means of addressing historical non-compliance with the current plan provisions.

Matters raised by the attendees included reference to noise sources generally located towards the southern end of the Facility, including the sound of reversing alarms, steam emissions, truck movements through the State Highway 26/No 1 Road intersection and parked trains idling along the site frontage. General discussion described these noise sources as occasional 'annoyance' although comment was also made that the noise environment associated with the facility had significantly improved. Whilst some of the noise sources are beyond Fonterra's immediate control and are outside of the scope of the current plan provisions, Fonterra staff confirmed that they would investigate measures that would address some of the matters raised. These were described as '*easy fixes*' and have subsequently been addressed through changes to on-site management practices.

In describing the Plan Change process, Fonterra staff explained the intention to undertake direct communications with the owners and occupiers of properties within the proposed NECB.

Subsequent to the consultation process described above, Fonterra identified proposed mitigation measures to reduce noise emissions from the D1/D2 Cooling Towers located towards the northern end of the south eastern site boundary. Contracts have now been let for the construction of both mitigation measures (Speciality Powders and D1/D2) to occur in Spring/Summer 2020.

A draft of the Plan Change and Section 32 evaluation was provided to Council for comment on 1 May 2020 and meeting was held with Council's senior planning staff (Ally van Kuiyk) and Planning Consultant (Marius Rademeyer) on 25 June 2020. This meeting identified a number of technical matters that have now been addressed through the finalised proposals. Subsequent to that meeting, consultation occurred with Ngati Haua representatives to establish whether the proposals raised any issues of cultural significance. The response to that consultation is included in Appendix E and notes Ngati Haua's support for the proposals.

11. NOTIFICATION

Schedule 1 of the RMA enables private plan changes to be subject to limited notification. The test for limited notification (as set out in Clause 5A(2)) is that the local authority may limited notify a private plan change but only if it is able to identify all the persons directly affected by the proposed change.

The Plan Change proposes to replace the existing NECB for Fonterra's Waitoa Dairy factory and introduce a suite of new provisions to manage the effects of noise emissions beyond the site. Only those properties that fall within the proposed NECB, being those properties

that will be subject to a different level of noise than that currently enabled by the District Plan, stand to be affected by the change. **Appendix C** identifies the full extent of the proposed NECB. A copy of the 'shapefile' for this boundary has already been provided to Council's GIS officer to ensure that it is loaded into the Council's GIS system to provide a basis for identifying potentially affected properties.

The changes sought through the Plan Change have no effect beyond the immediate vicinity of the Facility and do not involve any changes to provisions applying elsewhere within the District. As such, the Plan Change does not require full public notification, or a more extensive limited notification process beyond those parties owning or occupying property within the proposed NECB.



APPENDIX A

ACOUSTIC ASSESSMENT



MARSHALL DAY
Acoustics 

WAITOA DAIRY FACTORY
PLAN CHANGE
Rp 001 R01 20180785 | 1 May 2020

Project: **WAITOA DAIRY FACTORY**

Prepared for: **Fonterra Co-Op Ltd
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Report No.: **Rp 001 R01 20180785**

Cover Image Waitoa, Piako, including dairy factory. Ref: WA-06230-G. Alexander Turnbull Library, Wellington, NZ

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1.0 INTRODUCTION

Marshall Day Acoustics (MDA) has been engaged by Fonterra Limited (Fonterra) to support their application for a plan change to amend the existing Noise Emission Control Boundary (NECB) for the Waitoa dairy manufacturing site (Waitoa site). This includes a programme of works to mitigate adverse noise effects from the site's operations.

The Waitoa site layout and processes have changed over the previous 60 years. Some of these changes can and do occur quickly. However, other pieces of equipment such as boilers and dryers have remained static reflecting their typical lifespan of 30-50 years. One of the consequences of this unforeseen step-change of process technology is the resulting change and/or increase in off-site noise emissions.

This report provides a brief background of existing noise emissions at the Waitoa site in the context of the District Plan. It then discusses the proposed amendment to the planning framework i.e. a new NECB and noise mitigation measures required to address the residual noise effects on the surrounding community. The new NECB considers both the current operations and future development of the Waitoa site, and in doing so provides certainty to the community, Fonterra and Matamata-Piako District Council (Council) about the level of noise that can be expected in the future.

Appendix A provides a glossary of acoustic terminology.

2.0 ACOUSTIC PARAMETERS – L_{10} VS L_{eq}

The District Plan uses the L_{10} acoustic parameter. As district plans are revised throughout New Zealand, the L_{eq} parameter is being implemented as required by National Planning Standards (Planning Standards).

This document uses both L_{10} and L_{eq} noise levels where appropriate to reflect either the District Plan or proposed future planning mechanisms. There is a crossover of *existing* noise received within the community (L_{10}) and the *after mitigation* proposed NECB being sought (L_{eq}).

Our detailed noise modelling and analysis of existing noise levels uses L_{eq} values to better inform discussion of future controls and to align with requirements of the Planning Standards. These L_{eq} values are representative of the upper range of historic measured noise levels in terms of the L_{10} acoustic parameter.

In some circumstances, the change to L_{eq} from L_{10} is perceived to be a slight relaxation of noise limits in favour of the noise-maker. In this case there is no such relaxation is caused by using the L_{eq} vs L_{10} acoustic parameter as the nature of the noise from the plant results in an insignificant change in noise level. This is discussed further in Section 4.

3.0 EXISTING NECB AND PLAN NOISE RULE

Noise, and other activities at the Waitoa site are specifically provided via a Development Concept Plan which is provided in Schedule 5 of the District Plan. More stringent rules apply to noise at the Waitoa site due to the specific NECB. The specific rule applicable to the Waitoa site is:

“a) For all new activities established after 10 June 1993.

For each new activity the night-time noise limit shall not exceed 40 dBA (L₁₀) provided that the cumulative noise level from the activities within the zone shall not exceed the following limits when measured at the emission control boundary {NECB} described on this concept plan:

	<i>L₁₀</i>	<i>L_{max}</i>
<i>Monday to Sunday (7.00am to 10.00pm)</i>	<i>50 dBA</i>	<i>-</i>
<i>All other times including Sundays and public holidays</i>	<i>45 dBA</i>	<i>75 dBA</i>

c) For any noise with the special audible characteristic as defined by NZS6802:1991 the L₁₀ noise level standards shall be reduced by 5 dBA.”

The Development Concept Plan, which depicts the relevant NECB, is provided in Appendix B of this document.

Rule 5.2.1 (v) of the Development Concept Plan requires that noise shall be measured and assessed in accordance with NZS 6801:1991 “Measurement of Sound” and NZS 6802:1991 “Assessment of Environmental Sound”.

In addition to the use of L_{eq} vs L₁₀ as discussed in Section 2, the 2008 versions of NZS6801 and 6802 are being implemented in District Plan review processes as a matter of best practice and in accordance with the NES.

4.0 NOISE COMPLIANCE SURVEY

MDA has been assisting Fonterra by undertaking their annual compliance monitoring for the last five years. Prior to that annual noise monitoring was undertaken by another company.

Since then, MDA have been actively working with Fonterra on noise-related management and consenting at the Waitoa site. We have also, and on a nationwide basis, been working with Fonterra on a more uniform approach to noise mitigation and control including the use of NECB (or similar) to manage current and future noise emissions from its activities. The use of NECBs and the L_{eq} metric for Fonterra’s activities is now provided in 14 district plans.

Based on work carried out by MDA, it is clear there are parts of the current NECB that are not being complied with. Fonterra has committed to two significant noise attenuation projects on the Waitoa site to achieve the proposed NECB and this is discussed in Section 5.

We also understand there is no history of noise complaints relating to the site’s operations. This absence of noise complaints may explain why there has been no enforcement action by Council. Community response to proposed plan change is discussed in Section 8. of this report.

5.0 NOISE MITIGATION - SITE

MDA has been involved with developing a noise mitigation strategy to reduce the off-site noise emissions especially in areas where any exceedance occurs at dwellings. It should be noted the treatment of noise on a large and complicated processing plant takes time, as the design, planning, funding and actual implementation i.e. doing works during non-manufacturing window, must all be coordinated.

A detailed noise survey of the Waitoa site was undertaken and the sources of noise were ranked by their contribution at receiver locations. Two sources of noise in particular were identified as being significant. These are:

Item 1: Specialty powder exhaust stack; and

Item 2: D1/D2 Cooling tower.

Item 1 noise mitigation is in final stages of planning and procurement, and it will be completed in 2020. Item 2 is going through the funding process and if approved we understand that treatment will occur in 2021.

Other noise sources have also been identified as contributing to the overall site noise emissions, but decisions regarding noise control of any equipment is also linked to wider issues such as the anticipated remaining lifespan of the asset, physical and locational limitations and financial implications both of the site performance and wider business.

While there remains potential for further reductions in noise from other sources on the site, this is a longer-term process that must weigh the costs and efficiencies of a particular project against the level of benefit accruing to the company and the community.

6.0 FUTURE DEVELOPMENT

Should there be any future development at the Waitoa site, it will be essential that Fonterra designs any new development to ensure compliance with the proposed NECB is maintained.

Just prior to the writing of this document, and as Council are aware, MDA were tasked with evaluating the noise effects and conceptual noise mitigation for the construction of a new dehumidifier building. The dehumidifier building is an ancillary process to an existing item of equipment, and it was proposed for processing quality and engineering reasons.

The design of the proposed dehumidifier was designed to ensure it did not result in additional cumulative noise off-site that was greater than the current footprint. This dehumidifier project is included in predicted noise levels shown in this document.

Fonterra are cognisant that the adoption of the proposed NECB represents a noise limit that applies to the Waitoa Dairy Factory in its totality including all existing and future noise sources.

7.0 PROPOSED CHANGE TO NECB

The proposed NECB is based on the noticeable noise reduction that will be achieved through the implementation of the noise control measures discussed in Section 5. There are several competing influences to reducing noise from large complex processing sites.

Given the wide range of factors that require further consideration before any additional noise reduction measures can be confirmed, the proposed NECB is the only practicable response to the existing site noise emissions. Achieving full compliance within the existing NECB, or alternatively a more tightly defined NECB than currently proposed, could only be achieved through ceasing operation of plant and equipment that is critical to overall site viability.

Appendix D illustrates the location of the proposed NECB (L_{eq} 45dBA) contour as we have calculated it for the purposes of determining noise reduction as a result of mitigation measures.

The proposed changes to the NECB seek to ensure the number of houses *outside* the 45dBA contour is maximised with the noise mitigation on-site being implemented. It is not feasible in our opinion, and with the site's current configuration, to reduce the Waitoa site noise emissions to a level that ensures all existing houses are outside the 45dBA contour.

Fonterra have, in addition to the on-site noise control, offered to provide noise mitigation package(s) to houses within the proposed 45dB L_{Aeq} NECB. MDA has prepared a framework based on noise levels received within potentially affected houses for determining what noise mitigation package may be required. Fonterra will confirm the noise mitigation package(s) based on the MDA framework.

8.0 NOISE MITIGATION WITHIN THE COMMUNITY

Fonterra proposes to undertake noise mitigation for qualifying dwellings in the form of upgraded glazing to habitable rooms and/or provision of mechanical services equipment to allow windows to be closed. We consider this an appropriate combination of measures to undertake where only modest noise mitigation is required.

The broad steps in providing noise mitigation to the community are as follows:

1. Determine if house is within the proposed 45dB L_{Aeq} NECB.
2. Measure noise level in habitable rooms (bedrooms and living areas) with windows open for typical ventilation.
3. If noise in bedroom(s) is greater than 35dB $L_{Aeq(1\text{ hour})}$ and/or living room is greater than 40dB $L_{Aeq(1\text{ hour})}$ then close windows and remeasure noise levels in those spaces.
4. If noise in bedroom(s) is less than 35dB $L_{Aeq(1\text{ hour})}$ and/or living room is less than 40dB $L_{Aeq(1\text{ hour})}$ with windows closed, install mechanical services equipment to provide ventilation.
5. If noise in bedroom(s) is greater than 35dB $L_{Aeq(1\text{ hour})}$ and/or living room is greater than 40dB $L_{Aeq(1\text{ hour})}$ with windows closed, install mechanical services equipment to provide ventilation **and** additionally review upgraded glazing alternatives.

We note that the above is for existing houses. If a new house were to be constructed, or an extension to an existing house, within the proposed plan change NECB, the owner would be required to ensure they provide adequate sound insulation to achieve 30dB $L_{Aeq(1\text{ hour})}$ in bedrooms and habitable spaces.

In our experience, achieving 30dB L_{Aeq} in **all** habitable spaces of new build homes, and extensions to existing homes, is straightforward because of increased insulation requirements and use of double glazing as standard in modern homes.

9.0 PROPOSED PLAN CHANGE

The proposed plan change will include an updated NECB defining the 45dB L_{Aeq} noise contour which Fonterra must comply with at night.

The proposed plan change will also include the noise mitigation measures offered to existing houses within the proposed NECB.

The proposed plan change will also address the potential for either the construction of a new house within the NECB, or the extension of an existing house, and what the expectation is regarding sound insulation.

Appendix D illustrates the proposed 45dB L_{Aeq} NECB. Proposed wording to accompany the proposed NECB is as follows:

[Development Concept Plan] – New Permitted Activity Standards for Fonterra’s Noise Emissions under the NECB – Existing Buildings Accommodating Sensitive Activities

Rule X

- a. Within six months of **[date plan change becomes operative]**, Fonterra shall, in respect of any building that existed at **[date plan change becomes operative]** accommodating a sensitive activity that falls within the Noise Emission Control Boundary for the Waitoa Dairy Factory, make an offer to the owner(s) to assess the internal noise levels within any habitable rooms from the operation of the Waitoa Dairy Factory.
- b. The assessment of internal noise levels within habitable spaces shall be undertaken by a suitably qualified and experienced acoustic consultant. The results of the internal noise assessment will be used to determine what noise mitigation is required (if any) to ensure internal noise levels from operation of the Waitoa Dairy Factory are controlled to an appropriate level.
 - I. If the internal noise level in bedroom(s) is greater than 35dB $L_{Aeq (1 \text{ hour})}$ and/or living room is greater than 40dB $L_{Aeq (1 \text{ hour})}$ then a further assessment shall be undertaken with windows closed to determine what mitigation measures are required under II and III to achieve an internal noise level that is equal to or less than 35dB $L_{Aeq (1 \text{ hour})}$ (bedrooms) and/or 40dB $L_{Aeq (1 \text{ hour})}$ (living rooms).
 - II. If the internal noise level in bedroom(s) is less than 35dB $L_{Aeq (1 \text{ hour})}$ and/or living room is less than 40dB $L_{Aeq (1 \text{ hour})}$ with windows closed, mechanical services equipment shall be offered to be installed to provide ventilation.
 - III. If the internal noise level in bedroom(s) is greater than 35dB $L_{Aeq (1 \text{ hour})}$ and/or living room is greater than 40dB $L_{Aeq (1 \text{ hour})}$ with windows closed, mechanical services equipment shall be offered to be installed to provide ventilation **and** other measures such as upgraded glazing alternatives shall be offered to be installed.
- c. The noise mitigation measures installed shall be certified by a suitably qualified and experienced acoustic consultant.

Note: For the purpose of this rule. Ventilation System means a system complying with the Building Code (NZS 4303) for mechanical ventilation (refer Clause G4). This rule will ensure a minimum level of ventilation is achieved.

[Rural Zone] – New Permitted Activity Standards for New Sensitive Activities within the NECB

Rule Y

Any habitable room in a new building accommodating a sensitive activity or any alteration(s) to an existing building accommodating a sensitive activity constructed within the Noise Emission Control Boundary for the Waitoa Dairy Factory shall be designed, constructed and maintained to meet an internal noise level of:

- a. 30dB $L_{Aeq}(1 \text{ hour})$ inside bedrooms and other habitable spaces with windows closed providing an adequate supply of fresh air is provided by a mechanical ventilation system to each habitable space.

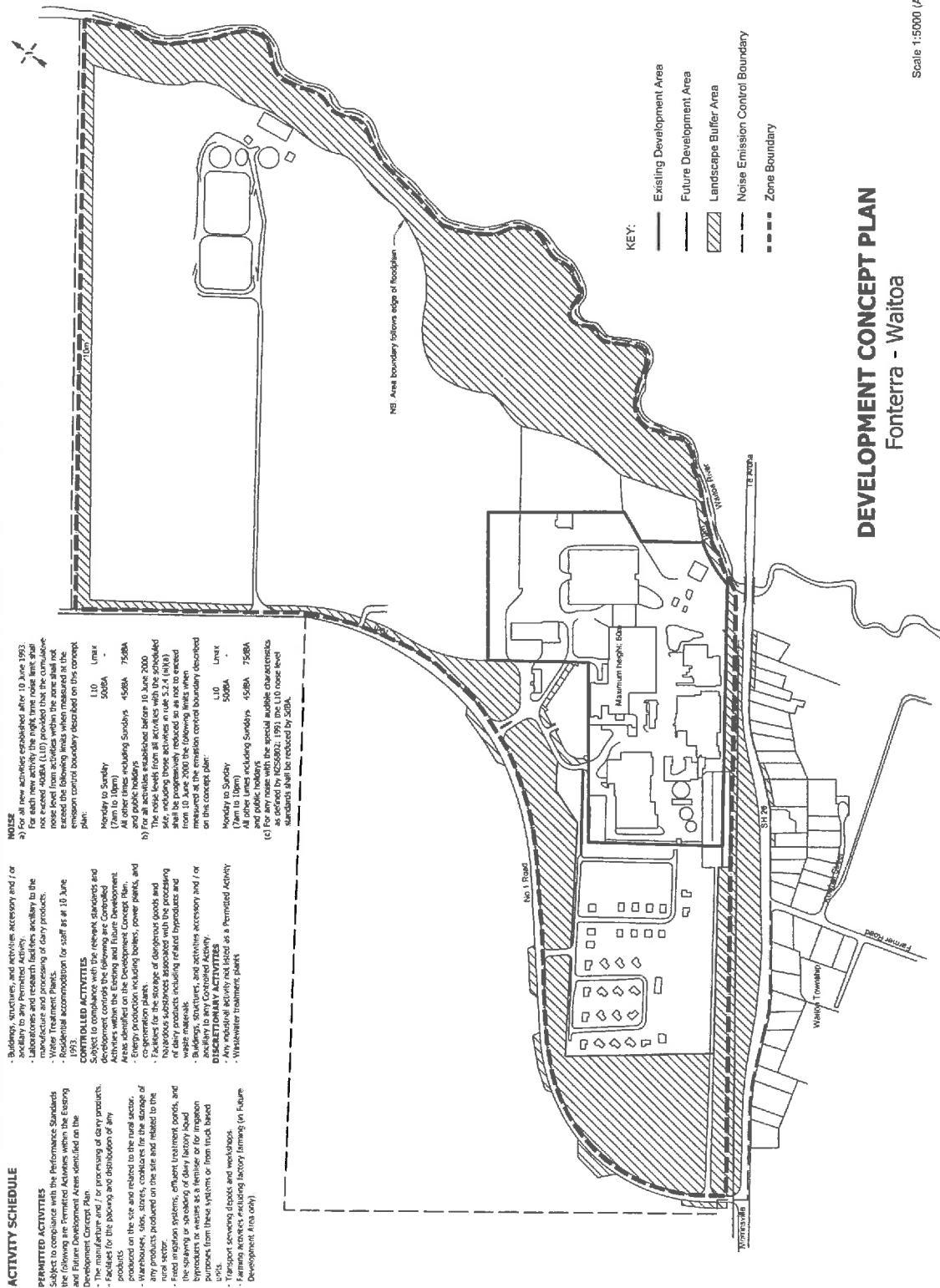
Compliance with **Rule Y** shall be achieved by, prior to the construction of any noise sensitive activity, submission of an acoustic design certificate from a suitably qualified and experienced acoustician to Council demonstrating that the prescribed internal noise levels will be achieved. The building will be designed, constructed and maintained in accordance with the design certificate.

Note: For the purpose of this rule. Ventilation System means a system complying with the Building Code (NZS 4303) for mechanical ventilation (refer Clause G4). This rule will ensure a minimum level of ventilation is achieved.

APPENDIX A GLOSSARY OF TERMINOLOGY

SPL or L_p	<u>Sound Pressure Level</u> A logarithmic ratio of a sound pressure measured at distance, relative to the threshold of hearing (20 μ Pa RMS) and expressed in decibels.
SWL or L_w	<u>Sound Power Level</u> A logarithmic ratio of the acoustic power output of a source relative to 10^{-12} watts and expressed in decibels. Sound power level is calculated from measured sound pressure levels and represents the level of total sound power radiated by a sound source.
dB	<u>Decibel</u> The unit of sound level. Expressed as a logarithmic ratio of sound pressure P relative to a reference pressure of $P_r=20 \mu$ Pa i.e. $dB = 20 \times \log(P/P_r)$
dBA	The unit of sound level which has its frequency characteristics modified by a filter (A-weighted) so as to more closely approximate the frequency bias of the human ear.
A-weighting	The process by which noise levels are corrected to account for the non-linear frequency response of the human ear.
$L_{Aeq}(t)$	The equivalent continuous (time-averaged) A-weighted sound level. This is commonly referred to as the average noise level. The suffix "t" represents the time period to which the noise level relates, e.g. (8 h) would represent a period of 8 hours, (15 min) would represent a period of 15 minutes and (2200-0700) would represent a measurement time between 10 pm and 7 am.
$L_{A90}(t)$	The A-weighted noise level equalled or exceeded for 90% of the measurement period. This is commonly referred to as the background noise level. The suffix "t" represents the time period to which the noise level relates, e.g. (8 h) would represent a period of 8 hours, (15 min) would represent a period of 15 minutes and (2200-0700) would represent a measurement time between 10 pm and 7 am.
L_{Amax}	The A-weighted maximum noise level. The highest noise level which occurs during the measurement period.
NZS 6801:2008	New Zealand Standard NZS 6801:2008 " <i>Acoustics – Measurement of environmental sound</i> "
NZS 6802:2008	New Zealand Standard NZS 6802:2008 " <i>Acoustics – Environmental Noise</i> "
NZS 6803:1999	New Zealand Standard NZS 6803: 1999 " <i>Acoustics - Construction Noise</i> "

APPENDIX B MATAMATA-PIAKO DEVELOPMENT CONCEPT PLAN (FONTERRA WAITOA)



DEVELOPMENT CONCEPT PLAN
Fonterra - Waitoa

Scale 1:5000 (A3)

NOISE

a) For all new activities established after 10 June 1993, for each new activity the night time noise limit shall not exceed 45dBA (L10) provided that the cumulative noise from activities within the area does not exceed the noise limit within the area and the noise emission control boundary described on this concept plan:

Hours to Sunday (7am to 10am)	L10	Limit
All other times including Sundays	45dBA	75dBA
All other times including Sundays	45dBA	75dBA

b) The noise levels from all activities within the proposed site, including those activities in rule 5.2.4 (a)(b) shall be progressively reduced so as not to exceed noise limits under the following limits when the noise emission control boundary described on this concept plan:

Hours to Sunday and public holidays	L10	Limit
All other times including Sundays	45dBA	75dBA

(c) For any noise with the special audible characteristics of a low frequency (LF) noise, the noise level standards shall be reduced by 5dBA.

PERMITTED ACTIVITIES

Subject to compliance with the Performance Standards for the following activities, the existing zoning and Future Development Areas identified on the Development Concept Plan:

- Buildings, structures, and activities necessary and / or ancillary to any permitted activity.
- Laboratories and research facilities ancillary to the manufacture and processing of dairy products.
- Energy production including boilers, power plants, and associated infrastructure.
- Noise abatement measures for staff as at 10 June 1993.

CONTROLLED ACTIVITIES

Subject to compliance with the relevant standards and activities within the Existing and Future Development Areas identified on the Development Concept Plan:

- Energy production including boilers, power plants, and associated infrastructure.
- Excludes for the storage of dehydrated goods and hazardous substances associated with the processing of dairy products including related byproducts and waste materials.
- Bulk storage, handling, and activities accessory and / or ancillary to any Controlled Activity.

DISCRETIONARY ACTIVITIES

- Any industrial activity not listed as a Permitted Activity.
- Wastewater treatment, plants.

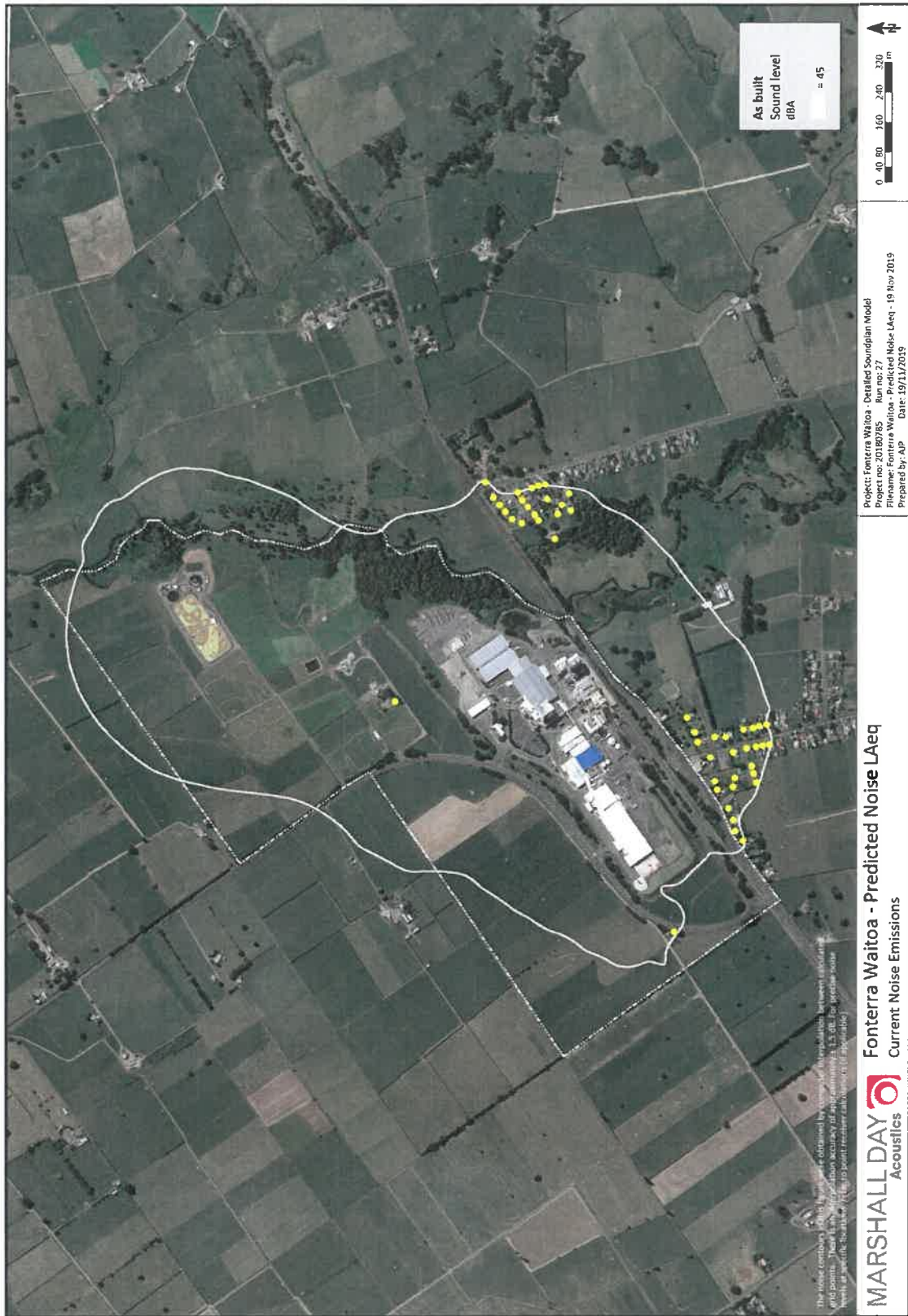
ACTIVITY SCHEDULE

PERMITTED ACTIVITIES

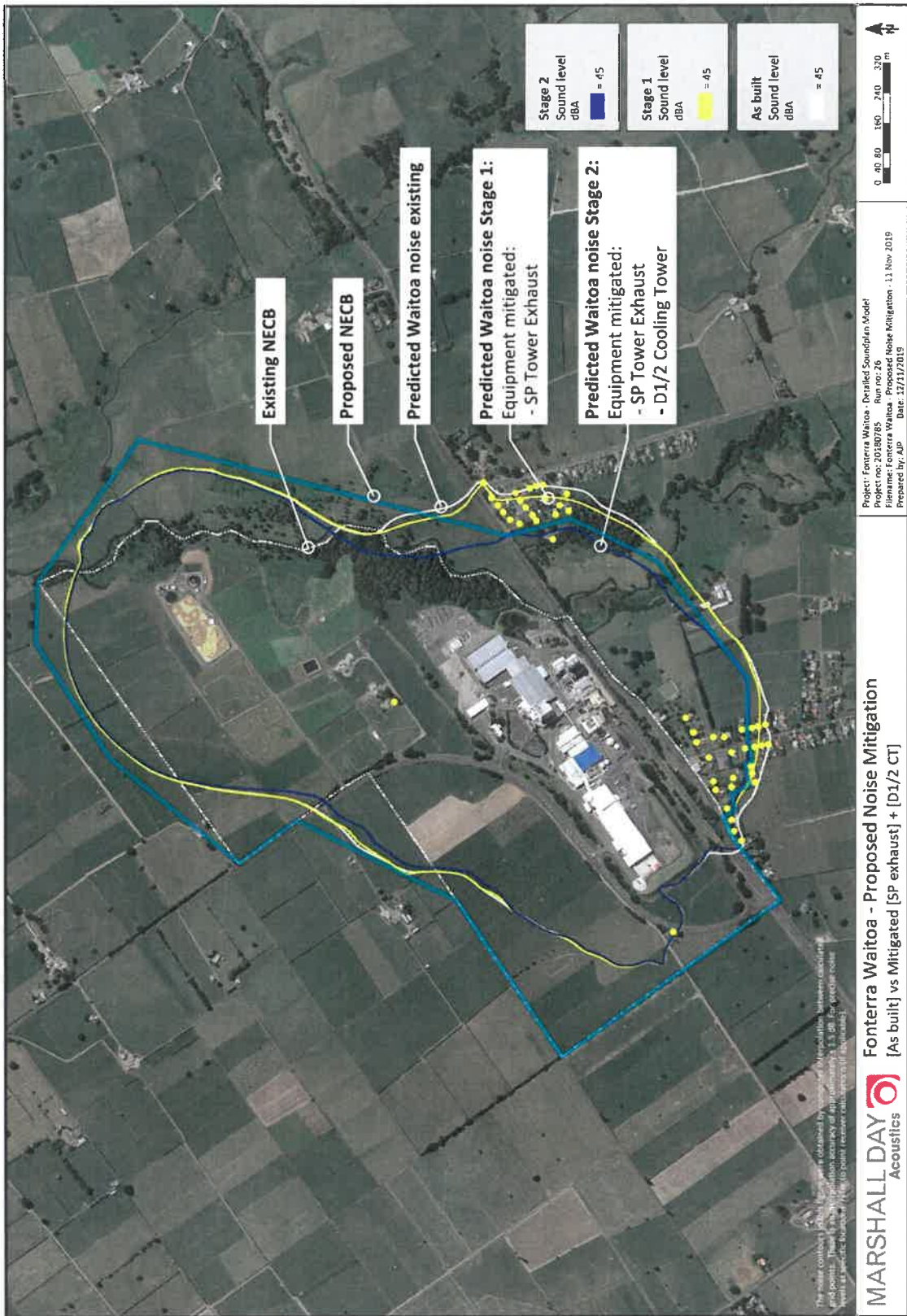
Subject to compliance with the Performance Standards for the following activities, the existing zoning and Future Development Areas identified on the Development Concept Plan:

- Facilities for the packing and distribution of any products.
- Facilities for the manufacture and / or processing of dairy products.
- Warehouses, silos, stores, co-silos for the storage of any products produced on the site and related to the rural sector.
- Fined impaction systems, effluent treatment ponds, and the spraying or stacking of dairy factory solid byproducts.
- Bulk storage, handling, and activities accessory and / or ancillary to any Permitted Activity.
- Transport services depot and workshops.
- Farming activities including factory farming (in Future Development Areas only).

APPENDIX C EXISTING WAITOA SITE NOISE EMISSION



APPENDIX D PROPOSED FONTERRA WAITOA NECB





B


APPENDIX B

AMENDED PLAN PROVISIONS

APPENDIX B
MATAMATA DISTRICT PLAN
FONTERRA PROPOSED PLAN CHANGE
Schedule 5: Sites subject to a Development Concept Plan

Proposed Amendments

Development Concept Plan, Fonterra- Waitoa

Delete existing provisions Noise (a), (b) and (c) and Noise Emission Control Boundary and replace with the following:

New Permitted Activity Standards

1. Noise levels associated with any activity or combination of activities within the existing or future Development Areas defined on the Development Concept Plan shall not exceed the following at the Noise Emission Control Boundary:
 - a) 45dBA (L_{Aeq});
 - b) 75dBA (L_{max})

Existing Buildings Accommodating Sensitive Activities

2.
 - a. Within six months of [date plan change becomes operative], Fonterra shall, in respect of any building that existed at [date plan change becomes operative] accommodating a sensitive activity that falls within the Noise Emission Control Boundary for the Waitoa Dairy Factory, make an offer to the owner(s) to assess the internal noise levels within any habitable spaces from the operation of the Waitoa Dairy Factory.
 - b. If the owner(s) accept Fonterra's offer, the assessment of internal noise levels within habitable spaces shall be undertaken by a suitably qualified and experienced acoustic consultant. The results of the internal noise assessment will be used to determine what noise mitigation is required (if any) to ensure internal noise levels from operation of the Waitoa Dairy Factory are controlled to an appropriate level.
 - I. If the internal noise level in bedroom(s) is greater than 35dB L_{Aeq} (1 hour) and/or other habitable room is greater than 40dB L_{Aeq} (1 hour) then a further assessment shall be undertaken with windows closed to determine what mitigation measures are required under II and III to achieve an internal noise level that is equal to or less than 35dB L_{Aeq} (1 hour) (bedrooms) and/or 40dB L_{Aeq} (1 hour) (other habitable rooms).
 - II. If the internal noise level in bedroom(s) is less than 35dB L_{Aeq} (1 hour) and/or other habitable room is less than 40dB L_{Aeq} (1 hour) with windows closed, a mechanical ventilation system shall be offered to be installed to provide ventilation.
 - III. If the internal noise level in bedroom(s) is greater than 35dB L_{Aeq} (1 hour) and/or other habitable room is greater than 40dB L_{Aeq} (1 hour) with windows closed, a mechanical ventilation system shall be offered to be installed and other measures such as upgraded glazing alternatives shall be offered to be installed.

- c. The noise mitigation measures installed shall be completed within six months of being accepted by the property owner, or such alternative timeframe agreed in writing by the property owner, and shall be certified as achieving the required level of mitigation by a suitably qualified and experienced acoustic consultant.

Note: For the purpose of this rule, a 'mechanical ventilation system' means a system complying with the Building Code (NZS 4303) for mechanical ventilation (refer Clause G4). This rule will ensure a minimum level of ventilation.

3. Rule 2a shall cease to have effect from (*6 months from Plan Change being made operative*), or in circumstances where the owner(s) of a building accommodating a sensitive activity declines the offer by Fonterra to assess the internal noise levels within any habitable rooms, whichever is sooner. Written confirmation of any decline of an offer to assess a property under Rule 2a shall be provided to Matamata-Piako District Council and shall be regarded as confirmation that the owners consent to noise emissions from the Dairy Factory.
4. Within one month of the completion of any mitigation works, confirmation of the of works being completed and performing at the required level of mitigation as certified by a suitably qualified and experienced acoustic consultant, shall be provided to the property owners and Matamata-Piako District Council.
5. All noise levels shall be measured and assessed in accordance with the requirements of New Zealand Standard NZS 6801:2008 "Acoustics – Measurement of Environmental Sound" and New Zealand Standard NZS 6802:2008 "Acoustics - Environmental Noise".

Performance Standards - all activities

New Rule 5.2.11 Noise Insulation: Noise Sensitive Activities within the Fonterra Waitoa NECB

5.2.11

Any habitable room in a new building accommodating a sensitive activity or any alteration(s) to an existing building accommodating a sensitive activity constructed within the Noise Emission Control Boundary for the Waitoa Dairy Factory shall be designed, constructed and maintained to meet an internal noise level of 30dB $L_{Aeq}(1 \text{ hour})$ inside bedrooms and other habitable rooms with windows closed providing an adequate supply of fresh air is provided by a mechanical ventilation system to each habitable room.

Compliance shall be achieved by, prior to the construction of any noise sensitive activity, submission of an acoustic design certificate from a suitably qualified and experienced acoustician to Council demonstrating that the prescribed internal noise levels will be achieved. The building will be designed, constructed and maintained in accordance with the design certificate.

Where the noise level can only be met with windows and doors closed, a suitable ventilation system shall be installed for the habitable room(s).

Note: For the purpose of this rule, a 'mechanical ventilation system' System means a system complying with the Building Code (NZS 4303) for mechanical ventilation (refer Clause G4). This rule will ensure a minimum level of ventilation.

Planning Maps

Amend the Development Concept Plan Diagram to replace the existing NECB with the proposed 45dBA Noise Emission Control boundary (attached in Appendix C).

13 November 2020



APPENDIX C

PROPOSED NOISE EMISSION
CONTROL BOUNDARY



No noise mitigation
dBA = 45

The noise contours in this figure were obtained by computer interpolation between calculated grid points. There is an inherent accuracy of approximately ± 2.5 db. For precise noise levels at specific locations, refer to both receiver calculations (if applicable).



APPENDIX D

OPERATIVE DEVELOPMENT CONCEPT
PLAN

ACTIVITY SCHEDULE

PERMITTED ACTIVITIES

Subject to compliance with the Performance Standards the following are Permitted Activities within the Existing and Future Development Areas identified on the Development Concept Plan.

- The manufacture and / or processing of dairy products.
- Facilities for the packing and distribution of any products produced on the site and related to the rural sector.
- Warehouses, silos, stores, coolstores for the storage of any products produced on the site and related to the rural sector.
- Fixed irrigation systems, effluent treatment ponds, and the spraying or spreading of dairy factory liquid byproducts or wastes as a fertiliser or for irrigation purposes from these systems or from truck based units.
- Transport servicing depots and workshops.
- Farming activities excluding factory farming (in Future Development Area only).

- Buildings, structures, and activities accessory and / or ancillary to any Permitted Activity.
- Laboratories and research facilities ancillary to the processing of dairy products.
- Water Treatment Plants.
- Residential accommodation for staff as at 10 June 1993.

CONTROLLED ACTIVITIES

Subject to compliance with the relevant standards and development controls the following are Controlled Activities within the Existing and Future Development Areas identified on the Development Concept Plan.

- Energy production including boilers, power plants, and co-generation plants.
- Facilities for the storage of dangerous goods and hazardous substances associated with the processing of dairy products including related byproducts and waste materials.
- Buildings, structures, and activities accessory and / or ancillary to any Controlled Activity.

DISCRETIONARY ACTIVITIES

- Any industrial activity not listed as a Permitted Activity or Controlled Activity.
- Wastewater treatment plants

NOISE

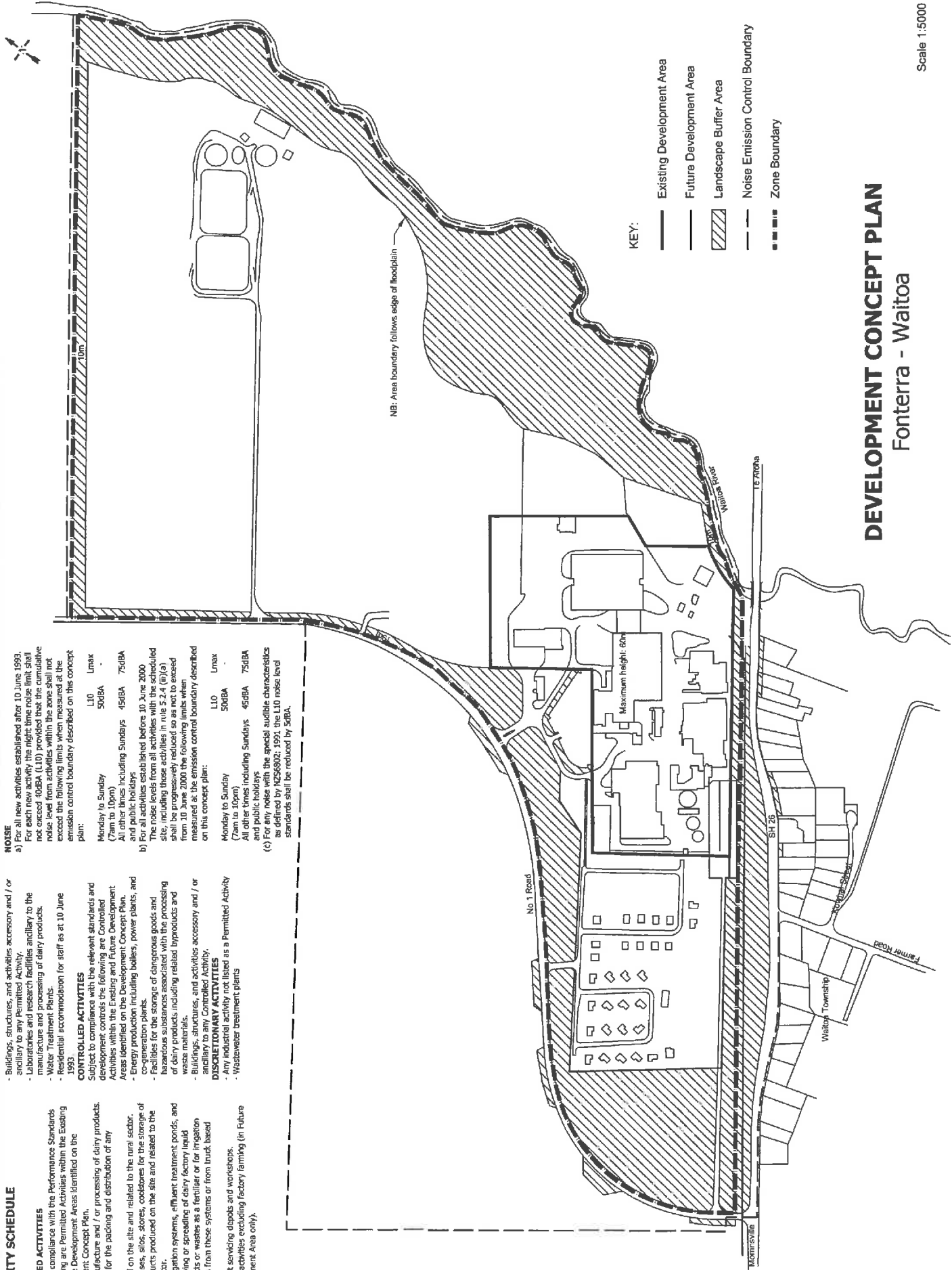
- a) For all new activities established after 10 June 1993, for each new activity the night time noise limit shall not exceed 40dBA (L10) provided that the cumulative noise level from activities within the zone shall not exceed the following limits when measured at the emission control boundary described on the concept plan:

	L10	Lmax
Monday to Sunday (7am to 10pm)	50dBA	-
All other times including Sundays and public holidays	45dBA	75dBA

- b) For all activities established before 10 June 2000 the noise levels from all activities with the scheduled site, including those activities in rule 5.2.4 (ii)(a) shall be progressively reduced so as not to exceed from 10 June 2000 the following limits when measured at the emission control boundary described on this concept plan:

	L10	Lmax
Monday to Sunday (7am to 10pm)	50dBA	-
All other times including Sundays and public holidays	45dBA	75dBA

- (c) For any noise with the special audible characteristics as defined by NZS6802: 1991, the L10 noise level standards shall be reduced by 5dBA.



KEY:

- Existing Development Area
- Future Development Area
- ▨ Landscape Buffer Area
- - - Noise Emission Control Boundary
- ▬▬▬ Zone Boundary

DEVELOPMENT CONCEPT PLAN

Fonterra - Waitoa



APPENDIX E

CONSULTATION WITH NGATI HAUA

27 August 2020

Fonterra Waitoa



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RE: CULTURAL VALUES STATEMENT FOR FONTERRA WAITOA

1. BACKGROUND

Fonterra Waitoa propose to increase the scale of the existing noise control emissions boundary (NCEB) at Fonterra's Waitoa site. This request a private plan change for noise management to Matamata-Piako District Council.

The private plan change is due to the long history of non-compliance at the Waitoa site, due to the location of the existing NCEB and major plant (i.e. dryers) along the property boundary resulting in exceeding the District Plan's noise limits for approximately nearby houses 40 houses.

2. CULTURAL STATEMENT RESPONSE AND POSITION

NHIT consider noise to be a localised issue for nearby neighbours. Tikanga practises are not implicated in this situation, therefore having reviewed the relevant information provided in regards to the private plan change against the objectives and policies of Te Rautaki Tāmata Ao Turoa, Ngāti Hauā Iwi Trust do not have any objections to the Fonterra Waitoa private plan change for noise management to Matamata-Piako District Council.

NHIT supports the proposals for:

- Two on-site capital works to reduce overall noise emissions which reduces the number of "impacted" houses from ~40 to 12.
- Potential for further mitigation for 12 remaining houses to reduce internal noise levels further (ie ventilation).

As stated in previous correspondence, Ngāti Hauā Iwi Trust will continue to work in good faith with Fonterra Waitoa, to alleviate cultural and environmental concerns at Fonterra Waitoa.

Nāku noa, nā



Lisa Gardiner – General Manager

