

**BEFORE THE INDEPENDENT HEARING COMMISSIONERS APPOINTED BY THE  
WAIMAKARIRI DISTRICT COUNCIL**

**IN THE MATTER** of the Resource Management Act 1991 ('the Act')

**AND**

**IN THE MATTER** of Hearing of Submissions and Further Submissions on the  
Proposed Waimakariri District Plan (**PWDP or the Proposed Plan**)

**AND**

**IN THE MATTER OF** Submissions and Further Submission on the Proposed Waimakariri  
District Plan by **McAlpines Limited (McAlpines)**

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**EVIDENCE OF JOHN DUNCAN ON BEHALF OF MCALPINES LTD**

Dated: 7 August 2023

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## INTRODUCTION

- 1 My name is John Maxwell Duncan
- 2 I am the Senior Advisor for the McAlpines Group, a Director of McAlpines Ltd and McAlpines Timber Ltd, and have been employed by McAlpines Ltd for 53 years. I am also a shareholder of the above companies.
- 3 I have 51 years' experience in the timber industry and have represented the McAlpines Group on many timber industry organizations.
- 4 I commenced my employment with the McAlpine's group in 1969 as a junior shortly after it had established its operations at the current sites on Ellis Rd and Todds Rd (**McAlpines site** or **site**). I worked my way through the business and became General Manager of McAlpines Timber during the mid-1980s and held that position until about 3 months ago.
- 5 I have been closely involved in the development of processing capability and operational matters associated with sawmilling and timber processing on the McAlpines site for many years up to the present day.
- 6 I have been requested by the company to prepare this evidence to provide the Hearing Panel with a background to the development of the McAlpines sawmill operations, and other operations at 1 Southbrook Road, 51 and 89 Todds Road, and the noise generation from those operations.
- 7 To help in the presentation of my evidence, I have attached a **Graphic Supplement**, which contains a site plan and various aerial photographs illustrating the development of the site over time.

## SCOPE OF EVIDENCE

- 8 In my evidence I address the following issues
  - (a) Use of the McAlpines land at Southbrook,
  - (b) Resource consents held by McAlpines,
  - (c) Development of the site over time,

- (d) Noise complaints from the McAlpines site, and
- (e) Potential impacts of complaints about noise on the operation of the McAlpines Timber sawmill.

#### **USE OF MCALPINES SITE AT SOUTHBROOK**

- 9 The McAlpines' sawmill at Rangiora was originally located on High Street. Over time this area became urbanised with limited opportunities for expansion. The decision was made to move from High Street and between approximately 1964 and 1969 the company established its operations in Southbrook. It did so to ensure that the operations of the company did not affect residents of the Rangiora area and to provide more scope for expansion.
- 10 Since then McAlpines has acquired further landholdings at Southbrook, as shown on **Appendix A** to my evidence. **Appendix B** contains a table showing among other matters, the street address, legal description, date of purchase and current use of the McAlpines land at Southbrook.

#### **Residential dwellings in the locality of the site**

- 11 A feature of the McAlpines site at Southbrook is the limited number of residential dwellings in the locality, especially on the rural zoned land lying to the west/northwest/ southwest of the site. The **1964 aerial photograph** shows the McAlpines site as rural land shortly before McAlpines began to establish sawmill operations on the site. The original three blocks of land forming the McAlpines site is marked on this photograph as well as the four closest residential dwellings lying to the northwest and southwest and on Ellis Road and Todds Road (marked 1, 2, 3 and 4 respectively), as follows:
- (a) The dwelling marked 1 is owned by McAlpines and is tenanted.
  - (b) The dwelling marked 2 was demolished by McAlpines a number of years ago.
  - (c) The dwellings marked 3 and 4 can be seen on the various aerial photographs included in the Graphic Supplement and they continue to be used for residential purposes today.
- 12 McAlpines has been fortunate that in the intervening years no further residential dwellings have been constructed on the rural zoned land lying to the west/northwest/ southwest of the site between 1964 and today's date.

### **Main uses of the McAlpines site**

- 13 Since 1964, the operations of the company have grown considerably at the McAlpines site. McAlpines operations can be broken down into four main uses
- (a) the production of timber,
  - (b) the processing of timber,
  - (c) the reception and dispatch of timber and
  - (d) commercial operations.
- 14 A **site plan** is attached in the Graphic Supplement, with the main noise generating activities highlighted in green. Also included in the Graphic Supplement is a Table showing the establishment date of each of these activities. The range of operations currently undertaken on the site are discussed in further detail below.

### **Production of Timber**

- 15 The sawmill usually operates from 7am to 4.30pm. Monday to Friday. The sawmill logs are trucked into the site on truck and trailer units from numerous sites across Canterbury, the logs are unloaded into stacks using a large log loader, logs are loaded onto a conveyor passing through a debarker before entering the mill. The head rig then cuts the timber into slabs and a resaw completes the final cutting process. Timber which is not suitable for further processing is sent through a chipper and the chip is dispatched to the MDF plant at Sefton. Some of the sawdust is used in the boilers, with the remainder sent for offsite processing into garden products. Bark is also sent offsite for processing into garden products. The sawn timber packs are stored in the open yard area using a large forklift.
- 16 The main sawmill building, indicated as **10 on the site plan**, is where most of the timber processing operations are located. This building houses the sawmill, the debarker, timber handling conveyors, cyclones and the chipper. This building is one of the key noise sources.
- 17 The different noise generating activities coming from the sawmill building are as follows:

#### Debarker

- 18 The debarker consists of a rotating ring with teeth on the inside, that tears the bark off the logs as they pass through the ring prior to going into the sawmill. The

operator of the debarker sits in a soundproof booth and all staff that work in this area are required to wear hearing protection.

### Chipper

- 19 The chipper consists of a large flywheel with blades that rotate and shred the lengths of timber into small chips that are used for the production of MDF. While the chipping operation is in a fully enclosed chamber, noise does emanate from the machinery where the lengths of timber enter the chipper, and where the chips are conveyed up into a stockpile.

### Alarms

- 20 Many of the operating systems have audible alarms there are activated during various parts of the process, and some are activated when there is a fault in the equipment. The site also has a siren that sounds when the workers' breaks are scheduled. These sirens, and other audible alarms, need to be loud enough to be heard by operators who are wearing hearing protection.

### **Processing of Timber**

- 21 This includes timber treatment, timber planing, timber profiling and production of customized sawn timber products. The main noise generated from this use includes the stacker, kilns and planer.

### Stacker

- 22 The stacker is one of the key sources of noise and is highlighted in green and **indicated as 8 on the site plan.**
- 23 The noise has a distinctive character, in the form of loud clattering and banging noises of timber on steel. The stacker operates over most of the day, receiving packs of timber for filleting. While the stacker is inside a building, the two ends of the building are open so that it can receive and dispatch packs of timber. All of the staff that work in the vicinity of the stacker are required to wear hearing protection. The stacker usually operates from 7am to 4.30pm Monday to Friday, but if required the hours can be extended to start at 6am and work up to 7pm, or working on Saturdays from 6am to 12pm.

### Kilns

- 24 The kilns are indicated **18 on the site plan**. The kilns are used to dry the timber. Noise coming from the kilns include; timber dropping onto steel, forklift reversing beepers and motors, whine from fans. The kiln fans are located in an enclosed building, which helps to dampen their sound. They now operate 24 hours per day, with the only shutdowns being at Easter and the three week Christmas close down, when the heavy maintenance is carried out.

### Planer

- 25 The planer is indicated **16 on the site plan**. A significant component of the company's business is supplying planed and gauged timber for interior use, and further manufacturing processes undertaken by other companies. The planer operates most of the day, with the rough sawn timber entering at one end and planed timber being discharged out the other end. While the planer is housed within a customized sound booth, and is located inside a building, the whining noise from the planer can be heard over large parts of the site. All the workers in this area are required to wear hearing protection. The planer usually operates from 7am to 4.30pm Monday to Friday, but if required the hours can be extended to start at 6.30am and work up to 5pm, or working on Saturdays from 6am to 12pm.

### Treatment plants

- 26 As radiata pine is susceptible to rotting, almost all the timber processed and used in New Zealand is treated with CCA or Boron. The treatment process requires the packs of timber to be loaded onto steel trolleys before they are pushed into a treatment cylinder. Following a treatment cycle, the steel trolleys are pulled out of the cylinder, and the packs are removed using a forklift to be wrapped before dispatching off site.

## **Reception and Dispatch**

### Reception

- 27 The timber site receives approximately 13 to 15 truck and trailer loads of logs each day. These truck and trailers access the site at the bend in Ellis Rd and travel across the yard area towards the log yard on Todds Rd. Log haulage trucks are typically constructed with a lightweight frame with bolsters that fold down after the logs have been unloaded, with the logs secured by chains over the load. These truck and trailer units are susceptible to generating "clanking" noises as they traverse the gravel yard.

In addition, the logging contractors like to begin their deliveries to the Rangiora site as early as possible in the day, usually at 7.30am.

#### Dispatch

- 28 Packs of timber weighing between one and two tonnes are loaded onto the outgoing trucks using large forklifts. Most of the timber is transported offsite on large truck and trailer units to both domestic and international markets. There are also 3 to 4 truck and trailer loads of chip, 2 truck loads of sawdust and 1 trailer load of bark offsite each day.
- 29 There are many other parts of the timber processing operation that require packs of timber to be picked up by a large forklift, loaded onto steel trolleys prior to processing, and then picked up by a large forklift for moving to the next part of the operation. While many of these operations are significantly quieter than those noted above, the picking up of packs of timber, and moving them, does generate noise, and all staff working in these areas are required to wear hearing protection.

#### **Commercial Use**

- 30 The Mitre 10 Mega Store was established in 2007 at 1 Southbrook Road.

#### **RESOURCE CONSENTS HELD BY MCALPINES**

- 31 McAlpines hold the following resource consents for the use of the land:
- (a) CRC042292 To place and use containers on or over land
  - (b) CRC971153 To discharge water and wood chips from a wood chip bin into water at or about map reference M35:7704-6435
  - (c) CRC980417 To discharge saw cooling water and contaminants into water at or about map reference M35:7704-6435
  - (d) CRC174664 To discharge stormwater into surface water and onto or into land

#### **DEVELOPMENT OF THE SITE OVER TIME**

- 32 The following section discusses development of the McAlpines site over time. As requested by our legal advisor, I have broken the chronology of site development into sections that discuss establishment and operation of noise generating activities

on the site prior to the introduction of new regulations or laws relevant to management of noise emissions from the site.

### **Activities established before Town & Country Planning Act 1977**

- 33 The first sawmill on the site was built in 1964 but was destroyed by fire in 1972 and rebuilt, along with the round table in 1972. Noise generating activities include the saws, debarker, conveyors, chipper, forklifts, logging trucks and log loader. The nature of the noise is of timber being dropped onto steel, forklift reversing beepers and motors sounds, logging truck motors and chains, whine from chipper blades and chopping noise from the chipper, 7am to 4:30pm, Monday to Friday and occasionally Saturday.
- 34 The CCA treatment plant was set up in 1964, to treat timber and posts. Noises generated by this activity are: trolleys being loaded with timber by a forklift, sound of timber dropped onto steel, forklift reversing beepers and motors, 8 hours a day. This increased to 24 hours a day in 2000, Monday to Friday.
- 35 Kilns were introduced in 1970. The kilns operated 8 hours per day, from 7:30am to 4:30pm. The kiln fans produce a whirring sound, but it is dampened as they are enclosed in buildings. Other kinds of noise includes: timber dropping onto steel, forklift reversing beepers and motors.
- 36 In 1974 a dry shed was built for the storage of kiln dried timber. Noise generating activities are: conveyors, forklifts and trolleys loaded with timber. The kind of sound is timber dropped onto steel, forklift reversing beepers and motors. The usual hours are 7:30am to 4:30pm, Monday to Friday.
- 37 In 1974 the sawmill staff amenities were built, along with a time clock siren. This produces a loud wailing sound. Usually from 7am to 4:30pm on an intermittent basis.
- 38 Also in 1974 a sawmill workshop and saw shop was built. This produces a steel on steel grinding sound. Usual hours are 7am to 4:30pm, Monday to Friday and occasionally on Saturdays.
- 39 In 1976, an old resaw and Wienig planing machine were installed in a shed, used for planing timber, **indicated as 15 on the site plan**. The kinds of sounds produced by this machinery include: timber dropped onto steel, forklift reversing beepers and



motors and a loud whine from the Weinig planer. The usual hours are 7:30 am to 4:30pm, Monday to Friday.

40 In summary, by 1977, the main noise generating machinery, such as the sawmill and round table, the old resaw and the Weinig planer were operating. Typical noise from these activities include: loud whining and chopping noise, along with the general reversing beeper and motor sounds from forklifts and trucks dropping timber onto steel and the loud wailing from the time clock siren.

41 The 1974 aerial photograph clearly shows the sawmill, round table and building that was to house the old resaw and Weinig planer. The **1979 aerial photograph** is less clear, but you can see the sawmill, roundtable and building housing the old resaw and Weinig planer, which is marked in green. The **1979 aerial photograph** is a good representation of the site as it was in 1977.

#### **Additional activities established before the Noise Control Act 1982**

42 In 1981, a docking saw factory was installed for cutting post palings, **indicated as 32 on the site plan**. The types of noise generated include: timber dropping onto steel, forklift reversing beepers and motors, and a loud whine from the saw. Operating hours are 7:30am to 4:30pm, Monday to Friday. This can be seen on the **1984 aerial photograph**.

43 In 1981, the engineers workshop was built. Types of noise generated include: grinding, drilling, steel on steel grinding, forklift reversing beepers and motors. Hours of operation are 7:30am to 5pm and Saturday mornings.

44 In 1982, a defilting shed was built for the storage of the kiln dried timber. Types of noise generated include: timber dropping onto steel, forklift reversing beepers and motors. Operating are hours 7am to 4:30pm, Monday to Friday.

#### **Additional activities established prior to Chapter 13 of the 1980 Rangiora District Plan becoming operative on 1 March 1985**

45 In 1985, the log yard next to the sawmill was reorganized to include a log loader and excavator. Types of noise generated include timber dropped onto steel, vehicle reversing beepers and motors. Operating hours are 7am to 5pm, Monday to Friday.

**Additional activities established prior to section 16 of the Resource Management Act 1991**

- 46 In 1990, a band saw was installed for timber processing, indicated as **25 on the site plan**. Noise generated include whining sound from the saw, forklift reversing beepers and motors. Operating hours are 7:30am to 4:30pm, Monday to Friday.
- 47 In 1990, two other sheds were built for the storage and dispatch of timber. Sounds associated with these sites include forklift reversing beepers and motors. Operating hours are 7:30am to 4:30pm, Monday to Friday.
- 48 The **1994 aerial photograph** is a good representation of the site as it was in 1991.

**Additional activities established prior to Operative Waimakariri District Plan, noise control rule 31.12.1.2 (operative 28 November 2005)**

- 49 In 1995 a boiler heat plant was installed, to provide heat to the kilns. The noise coming from this include the whine from fans and hissing sounds. Its hours of operation are 7:30am to 4:30pm, Monday to Friday.
- 50 In 1996 a coal bin was installed to store coal for the boilers. The sounds associated with this activity include truck motors and hydraulics and coal dropping out of the truck deck into a hopper. Its hours of operation are 7:30am to 4:30pm, Monday to Friday.
- 51 Around the year 2000, the kilns and boiler heat plant started operating 24 hours a day.
- 52 In 2002, a Waco planer was installed, used for the planing of timber. The noise associated with this machinery include: timber dropping onto steel, forklift reversing beepers and motors and a very loud whine from the planer. Its hours of operation are 7:30am to 4:30pm, occasionally to 5pm, Monday to Friday.
- 53 In 2004, the stacker was installed, for the stacking and filleting of timber. The noise generated by this equipment includes timber dropping onto steel, forklift reversing beepers and motors and a continuous clattering sound. Usual hours are 7am to 5pm, Monday to Friday but it sometimes starts at 6pm and finishes at 7pm or can work on Saturdays from 6am to 12pm.
- 54 In 2004, a boron treatment plant was installed for the treatment of industrial timber. The noise generated by this activity includes timber dropped onto steel, forklift

reversing beepers and motors. Its hours of operation are 7:30am to 4:30pm, occasionally to 5pm, Monday to Friday.

55 To summarize, by the end of 2004, alongside the noise already generated by the sawmill, roundtable, kilns, old resaw, Weinig planer and excavator in the log yard, an increase in noise occurred due to the installation of the stacker and the Waco planer. The CCA plant increased its operating hours in the year 2000, however this does not generate much noise that would be heard beyond the site. The extra noise generated by the addition of the stacker and Waco planer had the quality of loud clattering from the stacker and a muffled whining noise from the Waco planer, but these noises were similar to noise already being generated on the site. The excavator also added motor sounds in the log yard.

56 Unfortunately, **the 2004 aerial photograph** is very poor quality and its impossible to see any of the installations mentioned above. The **2010 aerial photograph** is much better and shows the location of all the main heavy machinery causing noise on the site. If you compare the **1979 aerial photograph**, with the **2010 aerial photograph**, you can see an expansion of our operations and an increase in noise generating activity, through the addition of the stacker, Waco planer, pole shed and excavator to McAlpines' operations since 1979. The **2010 aerial photograph** is a good representation of the site just prior to 2005.

#### **Additional activities established after the 2005 Operative Waimakariri District Plan**

57 The use of the site carried on as normal, except that in 2007 a steamer, for stream drying posts, was installed. The noise generated by this activity includes the sounds of timber dropping onto steel, forklift reversing beepers and motors, a warning siren and an intense hissing sound. The steamer operates 24 hours a day.

58 Also in 2007, the Mitre 10 Mega store was built, along with several large sheds. This activity resulted in more of the same types of noise already present on the site, such as vehicle reversing beepers and motors. The usual hours of operation are 7am to 6pm, 7 days a week.

59 In summary, McAlpines' operations expanded after 2005, but this expansion took the form of diversifying our operations into large format retail. The operating hours of the site remained the same. Furthermore, this expansion did not result in an increase of noise coming from the site or a change in the intensity or character of the noise.

60 Since 2004, there has been no equipment installed on the site that generates noise different in character to the noise already generated by existing activities on the site.

61 Since 2021 there has been some reduction in noise generated by the site, with the bandsaw decommissioned in 2021 and in 2022 the steamer was removed.

#### **Further comments about use of the site**

62 To summarise, the majority of the noise-emitting operations have been in use by McAlpines since 2004, as shown by the **2010 aerial photograph**. The primary equipment in the sawmill has not changed substantially although there have been significant improvements in technology to improve the output, and efficiency of the sawmill over the years.

63 Apart from the annual Easter and Christmas closedowns, and the recent Covid 19 Level 4 lockdown, the site has operated continuously since it was established.

#### **NOISE COMPLAINTS FROM THE MCAPLINES SITE**

64 The Council has never requested or required us to modify our operations, or apply for a resource consent to manage the noise from the sawmill.

65 The company is very proud of its record operating at Southbrook and to my knowledge there has never been a complaint about noise levels emanating from the sites that we operate. In my role as General Manager, I would have been aware of any noise complaints made by a member of the public against the company. I most likely would also have been aware of any noise complaint before I became General Manager because any such complaint would have been quite a big deal for the company given the nature of our operations. We have always endeavored to be a good neighbour and we would have taken such a complaint very seriously. For these reasons I'm reasonably confident that no noise complaints have been made by occupants of neighbouring properties against the company.

66 Even so, I want to make it clear that we are not resting on our laurels. We want to be considered a good a neighbour and we do try to mitigate or reduce noise emissions whenever we can. Everything we do now in terms of development of the site is undertaken with a view towards reducing noise levels as much as practically possible. We will continue to adopt this approach as and when opportunities arise in the future.

## **POTENTIAL IMPACTS OF COMPLAINTS ABOUT NOISE ON THE OPERATION OF THE MCALPINES SAWMILL.**

- 67 The company is very proud of its record operating at Southbrook and to my knowledge there has never been a complaint about noise levels emanating from the sites we operate.
- 68 Despite this, the company is very cognisant that there are aspects of noise generation from the site that many people could find quite annoying. Even those people who have worked on the site for many years, find that there are intermittent noises such as the forklift reversing beepers, clanking of logging truck bolsters and chains, dropping packs of timber onto steel trolleys, steel trolleys being pulled in and out of kilns and treatment plants, which can be disrupting.
- 69 One of the noisiest periods of the day is first thing in the morning (between 6.30 am and 8 am) when the logging trucks arrive on site, packs of timber are moved from one area to the other, and machinery such as the chipper and stacker start up. These noises are particularly noticeable on frosty mornings, or when there is a light southerly or south easterly wind blowing. We are concerned that these noises could irritate future residents in the rural lifestyle zone to the west of our site.
- 70 If there are noise sensitive activities located on land within the 55 dBA noise contour, it seems likely that some of them will complain about the irritating noises emanating from the McAlpines' timber operations.
- 71 Should future residents lodge complaints with the Council, there are potentially significant negative implications for the site's operations including:
- (a) **Reduced Safety.** The reversing beepers on the company's forklifts and other plants are crucial for keeping workers safe, and pressure to remove or reduce the volume of these alarms could lead to an increase in injuries to the workers on the site. The company has invested a large amount of money in separating pedestrian movements from vehicle movements, but there are still times where workers are required to operate in close vicinity to forklifts, and other mobile plant. Other audible alarms, that need to be loud enough for workers to hear while wearing hearing protection, are important safety features around the site.

- (b) Increased compliance costs. In the event that residents on nearby land complain, there will be pressure from the Council for the company to undertake regular, or even continuous, noise measurements. In addition to the capital cost, there would be considerable operational costs in maintaining these systems.
- (c) Decreased productivity. In the event that residents from nearby land complain there will be pressure from the Council to try and curtail some activities, particularly first thing in the morning. This would have a significant effect on the site's productivity, which is already under pressure due to the poor quality of logs in the Canterbury region.
- (d) Loss of the McAlpine's business in its entirety. Should noise related restrictions be significant, the company may need to reduce its operations, or even close down. There would be direct economic impacts to the Rangiora area as a result of the loss of the business.
- (e) Loss of jobs. Reduction of the sawmill operation, or closing down entirely, will result in the loss of jobs for a number of residents of the District.
- (f) Reduced competition. Due to the dwindling number of sawmills in the Canterbury region, reduction of the company's operations, or complete closure, would significantly reduce the competition from sawmills to buy saw logs from local forest owners, and potentially reduce the returns that forest owners would receive when harvesting their forestry assets.

## **CONCLUSION**

72 The company is very proud of its record operating at Southbrook and to my knowledge there has never been a complaint about noise levels emanating from the sites that we operate.

73 As a director and officer of many of the McAlpines companies, I am concerned that the potential residential subdivision and development of rural land to the west of the sawmill, could have a significant impact on our businesses, and potentially decrease site safety, increase compliance costs, reduce productivity, and curtail some of the company's activities.

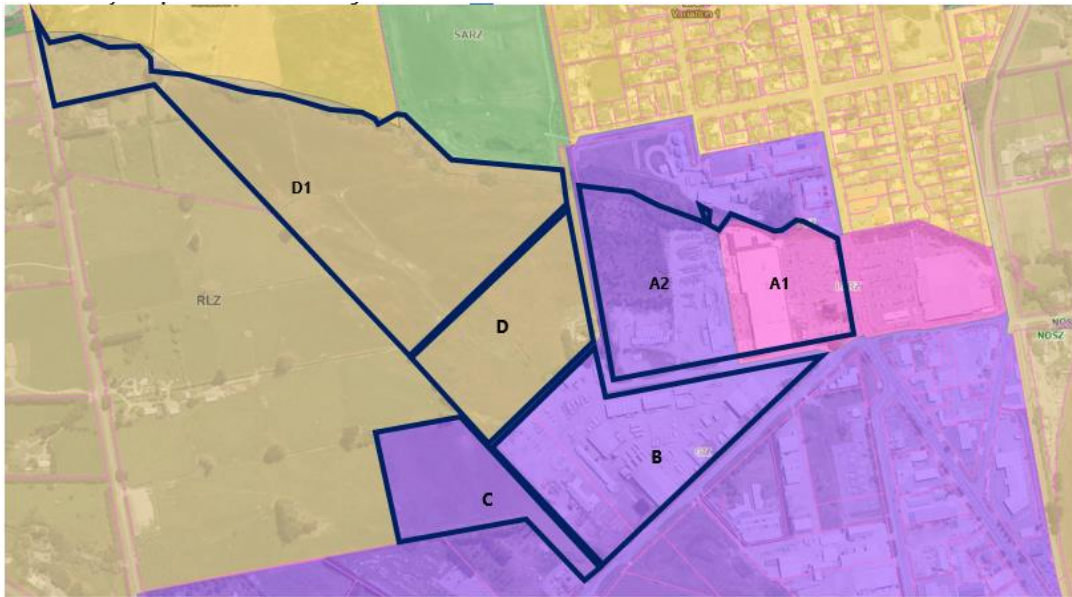
74 Thank you for the opportunity to present my evidence.

John Duncan

7 August 2023

## APPENDIX A

Land owned by McAlpines at Southbrook, Rangiora, marked A1, A2 , B , C , D and D1





**APPENDIX B**

Table showing zoning of the McAlpines land in the Operative District Plan and the PDP, together with street address, legal description, date of purchase and current use of the McAlpines land

Ref	Street address	Legal Description	Owner	Date of Purchase	ODP zoning	PDP zoning	Current activities
A1 and A2	1 Southbrook Road	PT RURAL SEC 370	McAlpines Ltd	28/11/1968	Business 2	Half LFRZ and half GIZ	Mitre 10 Mega Store, Roundwood storage, McAlpines Engineering
B	51/89 Todds Rd	LOT 2 DP 81246 and LOT 1 DP 81246	McAlpines Timber Ltd	10/07/1969	Business 2	GIZ	Sawmilling, timber treatment, timber drying, timber machining
C	47 Todds Rd	LOT 1 DP 22119	McAlpines Ltd	17/01/1964	Business 2	GIZ	Stock grazing
D	45 Ellis Rd	PT RS 708	McAlpines Ltd	9/12/2011	Rural	RLZ	Dwelling and farming
D1	104 Townsend Rd	LOT 2 DP 547085	McAlpines Ltd	20/03/2023	Rural	RLZ	Crop farming