

Appendix 3: Expert evidence

Mat Collins Memo

21 April 2022

Jess Tuilaepa
Selwyn District Council
2 Norman Kirk Drive
PO BOX 90, ROLLESTON 7643

Dear Jess

SELWYN PROPOSED DISTRICT PLAN: DAIRY PROCESSING ZONE REVIEW

Flow Transportation Specialists Ltd (Flow) has been engaged by Selwyn District Council (Council) to provide transport planning and transport engineering advice regarding the Proposed District Plan (PDP).

Council has requested that we review matters associated with the Special Purpose Dairy Processing Zone (DPZ), as it relates to the Fonterra Milk Processing Factory at 3/3792 West Coast Road (SH73) in Darfield (Fonterra site) and the Synlait Milk Processing Factory at 1028 Herslerton Road in Dunsdale (Synlait site).

Council has requested that I consider

- ◆ Matters relating to vehicle trip generation, and effects on the State Highway network, from the Fonterra site and the Synlait site
- ◆ Rule DPZ-R3, DPZ-REQ8, and DPZ-MAT1, including amendments proposed by Fonterra and Synlait Limited
- ◆ Any other considerations relevant to transport matters.

I have reviewed the following documents

- ◆ Statement of evidence, Susannah Tait on behalf of Fonterra Limited (Fonterra), dated 16 March 2022, including
 - ◆ Appendix A: Proposed Plan Change: Dairy processing Management Area, Darfield – Carriageway Consulting, dated 30 May 2016
- ◆ Statement of evidence, Nicola Rykers on behalf of Synlait Milk Limited (Synlait), dated 16 March 2022
- ◆ Statement of evidence, Andrew Metherell on behalf of Synlait Milk Limited, dated 15 March 2022.

In summary, I conclude that

- ◆ **Synlait site**
I generally support Ms Rykers' proposed amendments to DPZ-REQ8, as I consider that they provide additional clarity and reduce the opportunity for subjectivity during future application of the Rule. I recommend some additional minor amendments for clarity.
- ◆ **Fonterra site**

I am unable to ascertain the number of vehicle movements on SH1 that were assumed in original assessment when the site access was consented. Should the existing traffic flows on SH73 be less than that assumed during the original assessment of the Fonterra site access, I generally support Ms Tait's recommendations regarding DPZ-R1, DPZ-R3 and DPZ-REQ9. However, I recommend that amendments are made to align DPZ-REQ9 with my recommendations regarding DPZ-REQ8.

♦ **DPZ-MAT1**

Should the Fonterra site and the Synlait site be subject to TRAN-R8 High trip generating activities, then I consider that the amendments proposed by Ms Rykers and Ms Tait to DPZ-MAT1 are acceptable, with some minor amendments.

However, should TRAN-R8 not apply, in my view the amendments overly limit Council's discretion over traffic effects that may be relevant. In the instance that the Fonterra site or the Synlait site generate traffic greater than what has been assessed to date, in my view Council should have discretion over matters identified in TRAN-MAT8.

1 CONSIDERATION OF THE SYNLAIT SITE

I have reviewed the Statements of evidence from Ms Rykers and Mr Metherell.

In summary, Ms Rykers and Mr Metherell consider that changes are required to DPZ-REQ8 concerning the SH1 / Heslerton Road intersection, which is the primary access for the Synlait site.

Ms Rykers and Mr Metherell express concerns with the DPZ-REQ8 in the Proposed District Plan, and request amendments to

- ◆ recognise that future upgrades to the State Highway by NZTA may negate the need to trigger future transport assessments related to the functioning of the intersection of State Highway 1 and Heslerton Road
- ◆ replace the reference to 'telemetry' count site with 'regular' count site
- ◆ clarify that the peak hour vehicle movements generated by Synlait are those movements between the site entrance on Heslerton Road and State Highway 1
- ◆ specify the 'formula' for measuring peak hour vehicle movements in terms of time of day, working week and busiest time in the calendar year for a dairy processing plant.

Ms Rykers' Statement of evidence includes amendments to DPZ-REQ8, shown in red below. I generally support Ms Rykers' and Mr Metherell's concerns, and the proposed amendments, as I consider that they provide additional clarity and reduce the opportunity for subjectivity during a future application of the Rule.

I recommend further minor amendments, outlined in ~~strikethrough~~ and underline in Table 1.

I note that there are inconsistent names used for Waka Kotahi New Zealand Transport Agency in DPZ-REQ8 and DPZ-MAT1 in the Proposed District Plan. I have used *NZTA* for consistency, but this could likewise be replaced with *Waka Kotahi NZTA*, *New Zealand Transport Agency* or *NZ Transport Agency*.

Table 1: Flow's recommended amendments (green) to DPZ-REQ8 amendments requested by Ms Rykers (red)

DPZ-REQ8	Access Design – Synlait
	<p>1. Prior to the issue of a building consent for any new building and/or addition to an existing building (excluding any buildings for ancillary activities specified in DPZ-R1) which will increase the capacity for milk processing or storage on a site subject to the Outline Development Plan in DPZ-SCHED1 a traffic assessment by a suitably qualified expert shall be provided which demonstrates that:</p> <p>a. The average annual daily traffic volumes on SH1 (east of Heslerton Road) <u>as most recently published by the NZ Transport Agency NZTA</u>, do not exceed 15,500 vehicles per day measured at <u>the NZ Transport Agency's NZTA's</u> nearest <u>regular</u> telemetry count site; and</p> <p>b. The average number of weekday afternoon peak hour vehicle movements <u>generated by the Synlait site between its site access on Heslerton Road and State Highway 1 will</u> does not exceed 220 vehicle movements per hour <u>calculated in accordance with the following requirements</u> measured as:</p> <p>i. <u>The average weekday afternoon peak hour between 4pm and 6pm; The calculation shall include vehicle movements from the proposed development, any consented development that is not yet built and existing vehicle movements.</u></p> <p>ii. <u>Existing vehicle movements from the Synlait site shall be measured by a traffic survey undertaken within the last 12 months, from a</u> Monday to <u>a</u> Thursday on two consecutive non-holiday weeks from the start of September to the end of the second week of December; <u>and</u></p> <p>iii. <u>The afternoon peak hour shall be calculated by taking those vehicle movements in the busiest one hour (to the nearest 15 minutes) recorded between 4pm and 6pm on each surveyed day, and then averaged to provide a final number.</u></p> <p>Activity status when compliance not achieved:</p> <p>2. When compliance with any of DPZ-REQ8.1 is not achieved: RDIS</p> <p>Matters for discretion:</p> <p>3. The exercise of discretion in relation to DPZ-REQ8.3 is restricted to the following matters:</p> <p>a. DPZ-MAT1 Access</p>

2 CONSIDERATION OF THE FONTERRA SITE

I have reviewed Ms Tait's statement of evidence including the traffic memo from Carriageway Consulting, attached as Appendix A to her evidence. In summary, Ms Tait considers that access to the Fonterra site should be treated in a similar fashion to the Synlait site, which is covered by DPZ-REQ8.

Ms Tait requests that

- ◆ DPZ-R3 is deleted
- ◆ DPZ-R1 is amended to reference a new information requirement, DPZ-REQ9
- ◆ DPZ-REQ9 is added.

In forming this view, Ms Tait relies on the traffic assessment memo produced by Carriageway Consulting in May 2016. I have reviewed the traffic assessment memo, in summary

- ◆ The memo states that the existing access to the Fonterra site was subject to detailed evaluation and was approved by Waka Kotahi New Zealand Transport Agency (Waka Kotahi). Evidence of this review was not included in the traffic assessment memo, therefore I have taken this statement as fact
- ◆ The evaluation of the access included consideration of projected traffic flows on SH73 in 2020, these flows were estimated by extrapolating a 4 – 5% growth rate per annum from 2008. The traffic memo does not provide the 2020 estimated flows
- ◆ Based on the extrapolated traffic flows, the review concluded that up to 170 vehicle movements could exit the site within a 30 minute period without adversely affecting the efficient operation of the access. However, should those movements be constrained to a 15 minute period, excessive queueing into the site would result
- ◆ The traffic memo notes that annual growth on SH73, between 2009 – 2015, has increased from between 1.1% and 13.7% (depending on the location assessed).

SH73 traffic flows

I have investigated the annual traffic growth on SH73 from data available on Waka Kotahi's website¹. SH73 count sites that are closest to the Fonterra site (as shown in Figure 1) are

- ◆ Darfield, approximately 3km south of the Fonterra site
- ◆ Springfield, approximately 20km north of the Fonterra site.

Data from these count sites only covered the past 5 years and are presented in Table 2. The Darfield site has seen an average annual traffic growth of around 5.6%, and the Springfield site has seen an average annual traffic growth of around -0.3%. These data need to be considered in the context of

¹ Waka Kotahi open data portal: State Highway traffic monitoring sites, available online at <https://opendata-nzta.opendata.arcgis.com/datasets/NZTA::state-highway-traffic-monitoring-sites/explore?location=-43.423531%2C172.007551%2C11.81>

Covid19, which has had a considerable effect on travel patterns since 2020, with significantly low travel demands experienced during periods of lock-down.

The traffic growth at the Darfield site is reasonably consistent with the growth assumptions made during the initial assessment for the Fonterra site access. However, as the traffic memo from Carriageway Consulting did not include the 2020 traffic flows on SH73 that were extrapolated as part of the initial assessment for the Fonterra site, I cannot confirm whether this assessment remains valid.

Figure 1: Waka Kotahi traffic count sites

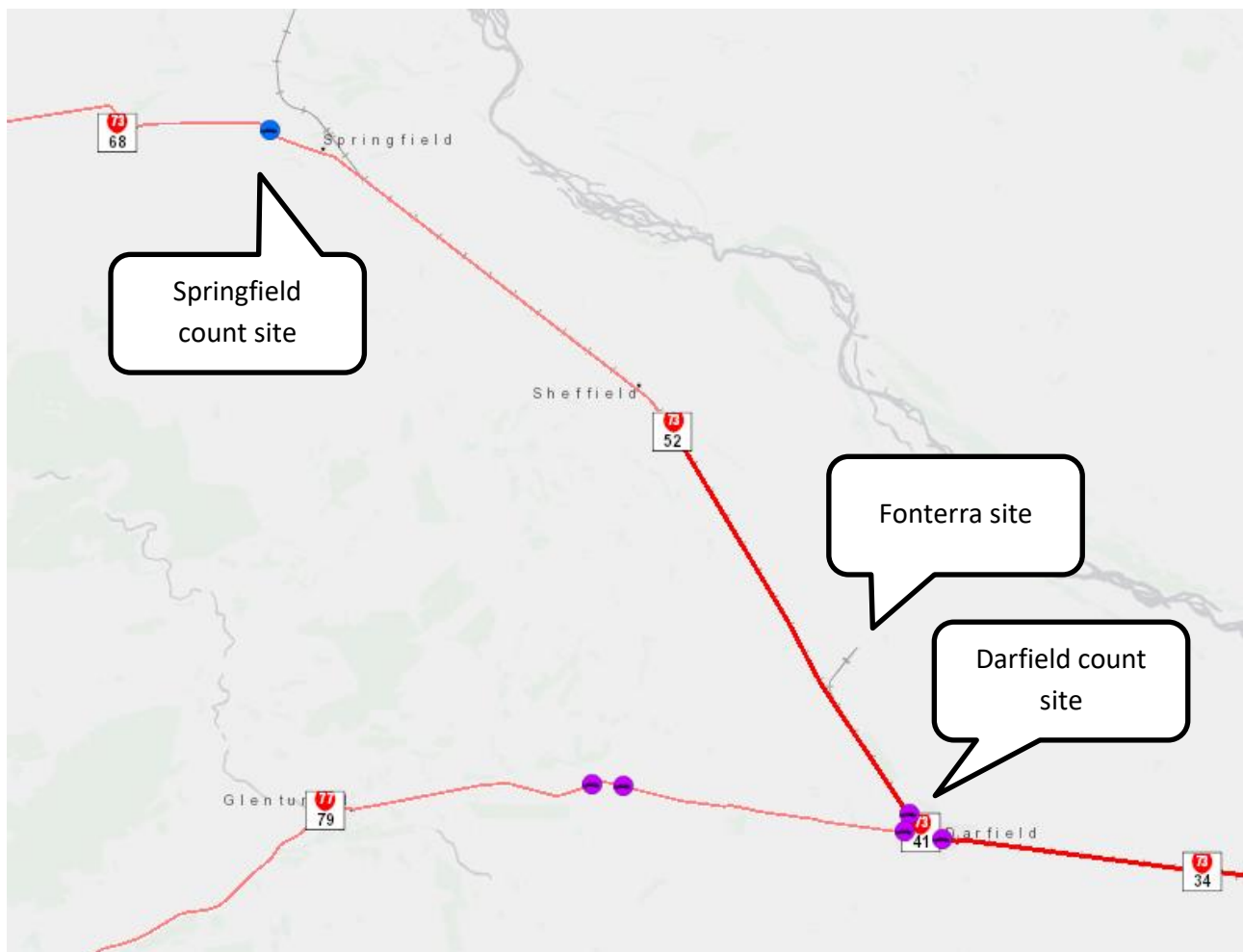


Table 2: Waka Kotahi traffic count data

Year	Darfield (Reference Station 41)		Springfield (Reference Station 52)	
	AADT ²	Annual growth	AADT	Annual growth
2017	3240	N/A	1901	N/A
2018	3477	7%	2030	7%

² Average annual daily traffic

2019	3317	-5%	2066	2%
2020	3631	9%	2150	4%
2021	4035	11%	1881	-13%
Average annual growth	199	5.6%	-5	-0.3%

My consideration of the Rules and Rule Requirements proposed by Ms Tait

Should the existing traffic flows on SH73 be less than those assumed during the original assessment of the Fonterra site access, I generally support Ms Tait's recommendations regarding DPZ-R1, DPZ-R3 and DPZ-REQ9.

However, I recommend that DPZ-REQ9 is aligned to be consistent with DPZ-REQ8 (including my amendments discussed in Section 1), as I consider this will provide additional clarity and reduce the opportunity for subjectivity during future application of the Rule.

My recommended amendments are outlined in ~~striketrough~~ and underline in Table 3.

Table 3: Flow's recommended amendments (n green) to DPZ-REQ9 proposed by Ms Tait

DPZ-REQ9	Access Design – Fonterra
	<p>1. Prior to the issue of a building consent for any new building and/or addition to an existing building (excluding any buildings for ancillary activities specified in DPZ-R1) which will increase the capacity for milk processing or storage on a site subject to the Outline Development Plan in DPZ-SCHED2 a traffic assessment by a suitably qualified expert shall be provided which demonstrates that:</p> <ul style="list-style-type: none"> a. <u>The cumulative volumes of vehicles emerging from the site do not exceed 170 vehicles in any 30 minute period. The average annual daily traffic volumes on State Highway 73 (south of the Fonterra access) as most recently published by NZTA, do not exceed xxx³ vehicles per day; and</u> b. <u>The average number of weekday peak hour vehicle movements generated by the Fonterra site between its site access and State Highway 73 will not exceed 170 vehicle movements per 30 minute calculated in accordance with the following requirements</u> <ul style="list-style-type: none"> i. <u>The calculation shall include vehicle movements from the proposed development, any consented development that is not yet built and existing vehicle movements.</u> ii. <u>Existing vehicle movements from the Fonterra site shall be measured by a traffic survey undertaken within the last 12 months, from a Monday to a Thursday on two consecutive non-holiday weeks from the start of September to the end of the second week of December; and</u> iii. <u>The peak 30 minutes shall be calculated by taking those vehicle movements in the busiest 30 minutes (to the nearest 15 minutes) recorded between 7am and 9am and 4pm and 6pm on each surveyed day, and then averaged to provide a final number.</u>

Activity status when compliance not achieved:

2. When compliance with any of ~~DPZ-REQ8.1~~ DPZ-REQ9.1 is not achieved: RDIS

Matters for discretion:

3. The exercise of discretion in relation to ~~DPZ-REQ8.3~~ DPZ-REQ9.3 is restricted to the following matters:

- a. DPZ-MAT1 Access

³ value to be confirmed from the extrapolated 2020 forecast traffic flows on SH73, as contained in the original accessway assessment

3 REVIEW OF DPZ-MAT1

Ms Rykers and Ms Tait have proposed amendments to DPZ-MAT1, as attached to Ms Rykers' Statement of evidence.

Should the Fonterra site and the Synlait site be subject to TRAN-R8 High trip generating activities, then I consider that the amendments proposed by Ms Rykers and Ms Tait to DPZ-MAT1 are acceptable, with some minor amendments as shown in Table 3.

However, should TRAN-R8 not apply, in my view the amendments overly limit Council's discretion over traffic effects that may be relevant. In the instance that the Fonterra site or the Synlait site generates traffic greater than what has been assessed to date, in my view Council should have discretion over matters identified in TRAN-MAT8.

Table 4: Flow's recommended amendments (green) to DPZ-MAT1 amendments requested by Ms Rykers and Ms Tait (red)

DPZ-MAT1	Access
	<ol style="list-style-type: none"> 1. The effects of any additional traffic <u>generated by the proposed activity on:</u> <ol style="list-style-type: none"> a. <u>The site access;</u> b. <u>The traffic efficiency and safety of:</u>with respect to the road frontage and the wider land transport infrastructure network. <ol style="list-style-type: none"> i. <u>Heslerton Road including the State Highway 1/Heslerton Road intersection (with respect to the Synlait site); or</u> ii. <u>The State Highway 73/Fonterra Access Road intersection (with respect to the Fonterra site); and</u> c. <u>The wider land transport infrastructure network:</u> <ol style="list-style-type: none"> i. <u>having particular regard to the design and extent of any intersection improvements planned, under construction or implemented by NZTA for Heslerton Road and SH1 with respect to the Synlait site}.</u> 2. The outcome of any consultation with NZTA and/or KiwiRail. 3. The suitability of the <u>any amendments or upgrades to the</u> access design having particular regard to the level of additional traffic generated by the proposed activity.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Mat Collins', with a stylized, cursive script.

Mat Collins
ASSOCIATE

Reference: P:\SDCX\015 SDC Proposed District Plan\4.0 Reporting\L1A220421 - Dairy Processing Zone review.docx - Mat Collins