

Section 42A Report

Report on Private Plan Change 61

R&C Wright request to rezone Rural Outer Plains to Business 2 & Living 1 Zones, east of Darfield

23 March 2021

Contents

1. Introduction	4
Qualifications and Experience.....	4
Evidence Scope	4
2. Background	4
3. Proposal and Site Description	5
Site Description	5
Surrounding environment.....	8
Proposal	9
4. Procedural Matters	11
5. Submissions.....	11
6. Statutory Framework	12
7. Assessment of Issues Raised by Submitters.....	13
a) Reverse Sensitivity	13
b) The Need for and Appropriateness of the Change in Zoning.	17
c) Transport Safety, Connectivity and Efficiency	19
Connectivity and Walking and Cycling	20
Cumulative effects and impacts on the State Highway and Intersections	23
Need to consider the Greater Christchurch Urban Development Strategy.....	24
d) Three Waters Servicing	24
Water supply	24
Wastewater	25
Stormwater	26
e) Flooding.....	27
f) Site Contamination.....	28
g) Highly Versatile Soils	28
h) Amenity	29
8. Statutory Analysis.....	29
National Policy Statement on Urban Development 2020.....	29
National Environmental Standard for Assessing and Managing Contaminations in Soil to Protect Human Health (NESCS)	30
Canterbury Regional Policy Statement (CRPS).....	30
Canterbury Land and Water Regional Plan (LWRP)	31
Mahaanui Iwi Management Plan 2013	32
Operative District Plan	32
Selwyn District Development Strategy 2031 and Malvern Area Plan.....	33
9. Proposed Amendments to the District Plan.....	33

Objectives and Policies.....	33
Rules	33
Planning Maps.....	34
Outline Development Plan	34
Proposed amendments to the District Plan (Townships Volume) and Officer Recommendations.....	34
10. Conclusions and Recommendation.....	39
Functions of territorial authorities.....	39
Consideration of alternatives, benefits and costs.....	40
Part 2 Matters	40
Conclusion	41
Recommendations	41
Appendix 1 – Summary of Submissions and Officer Recommendations.....	42
Appendix 2 – Evidence of Dave Smith, Abley Consulting (Transportation)	44
Appendix 3 - Evidence of Murray England (Water).....	60
Appendix 4 – Proposed Outline Development Plan.....	70
Appendix 5 – Peer review of Ascot Park Ltd submission by Pattle Delamore Partners	72

1. Introduction

Qualifications and Experience

- 1) My name is Jon Trewin. I am employed by Selwyn District Council as a Strategy and Policy Planner. I hold the qualification of Masters in Development Planning from the University of Reading (UK). I have 15 years' experience in the planning field in a variety of related roles in the UK and New Zealand.
- 2) Whilst this is a Council Hearing, I have read the Environment Court's Code of Conduct for expert witnesses, and I agree to comply with it. My qualifications as an expert are set out above. I confirm that the issues addressed in this report are within my area of expertise and I have relied on the expert advice of others where stated. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

Evidence Scope

- 3) This report analyses the submissions received on Private Plan Change 61 (PC61) to the Selwyn District Plan (the Plan) and has been prepared under s42A of the Resource Management Act 1991 (the Act).
- 4) The purpose of this report is to assist the Hearing Commissioner in evaluating and deciding on submissions made on PC61 and to assist submitters in understanding how their submission affects the planning process. This report includes recommendations to accept or reject points made in submissions, and to make amendments to the Plan. These recommendations are my opinions, as Reporting Officer, only.
- 5) In this regard it is important to emphasise that the Commissioner is in no way bound by my recommendations and will form their own view on the merit of the plan change and the outcomes sought by submitters, having considered all the evidence before them.
- 6) In preparing this report I have:
 - a) visited the site and wider Darfield township;
 - b) reviewed the plan change request as notified;
 - c) read and assessed all the submissions received on the plan change request;
 - d) considered the statutory framework and other relevant planning documents; and
 - e) relied, where necessary, on the evidence and peer reviews provided by other experts on this plan change.
- 7) This report effectively acts as an audit of the detailed information lodged with the plan change request prepared by Baseline Group Ltd on behalf of Rupert and Catherine Wright. A full copy of the plan change request, submissions, summary of submissions and other relevant documentation can be found on the Selwyn District Council website at <https://www.selwyn.govt.nz/property-and-building/planning/strategies-and-plans/selwyn-district-plan/plan-changes/rezone-rural-outer-plains-to-business-2-and-living-1-zones-east-of-darfield>.
- 8) As such, this report seeks to provide as little repetition as possible and will adopt those parts of the application where referred to. If a matter is not specifically dealt with in this report, it can be assumed that there is no dispute with the position set out in the plan change application.

2. Background

- 9) This plan change application proposes to rezone approximately 30.76 hectares (ha) located east of Darfield on a segment of land bound by West Coast Road (SH73) and the intersection of Creyke Road, from Rural Outer Plains to a mix of Business 2 and a Living 1 (Darfield East) zone. The Plan Change initially sought to

insert an Outline Development Plan (Darfield East ODP) with site-specific rules to facilitate the development of a business zone adjacent to SH 73 and up to 35 residential sections on the south boundary with an average density of 1,950 m². On 11 February 2021, the applicant sought to make a change to this proposal by offering an amended ODP. The amended ODP sees the area proposed to be zoned as Living 1 increased to incorporate some of the previously proposed Business 2 land in the north east of the site. The Living 1 zoned land is proposed to be a mix of land with an average allotment size of 1,950sqm and land with a minimum lot size of 5,000sqm with the total number of residential lots to remain at 35. I have addressed this proposed change in my discussion below relating to the issue of ‘scope’.

- 10) I note that through the District Plan Review, it is intended that the land at the subject site be zoned as part of the ‘General Rural Zone’ rather than discretely identified as ‘Outer Plains’ (the use of the term ‘Outer Plains’ will be retained in certain circumstances, such as specifying rural density). In essence, although the name of the rural underlying zone will change, the fundamental intention of this zoning is to remain the same. However the land at the subject site has been indicated as suitable for growth by Council, something I will discuss later in this report.

3. Proposal and Site Description

Site Description

- 11) The site subject to the plan change, shown below in Figure 1, is approximately 30.76 hectares (ha) in size and is located east of Darfield on a segment of land bound by West Coast Road (SH73) and the rail line to the north and Creyke Road to the east. Creyke Road intersects with West Coast Road at the north east corner of the site. To the west and south lie mostly undeveloped land, however the zoning supports future residential development (see zoning map in Figures 2 and 3 below).

Figure 1 – Aerial photograph of site, outlined in blue (Source: Selwyn District Council Maps).



- 12) The site has a total area of 30.76ha and includes one land parcel, in the ownership of Rupert and Catherine Wright. The full legal title is described as Section 1 SO 1227, Darfield (the title record being CB39B/123).

- 13) The site has a relatively flat topography and no significant natural features or vegetation cover except shelter belts and pine trees around the northern, western and southern boundaries. It has historically been used for agricultural purposes (grazing). There are no buildings or other structures presently on site. A water race runs along the southern boundary of the site.
- 14) The zoning of land is shown below in Figure 2, with respect to the Operative District Plan and Figure 3 with respect to the Proposed District Plan. As stated, the subject site is currently zoned 'Rural-Outer Plains'. This zoning is present to the immediate east of Creyke Road where primary production is predominant (such as grazing, cropping and pastoral activities). It is noted however that Council has ownership of the land parcel immediately to the east of Creyke Road (CB4C/1039) which extends from SH 73 to Telegraph Road. Although no designation is in place for this land presently, it may be used for infrastructure/water servicing purposes in the future.
- 15) To the north of SH 73 is Business 2 (B2) zoning incorporating a number of industries including a poultry farm, seed cleaning and a clay brick factory as well as some limited residential activity.
- 16) To the immediate west lies Living 2A deferred zoning (L2A Def). This zoning was deferred until an outline development plan is included in the District Plan to show how the area can be comprehensively developed and serviced. I note that the Proposed District Plan proposes to lift this deferral by including a development plan for this area ('Darfield 5 Development Area'). This will be a relevant consideration for any resource consent involving subdivision within that development area, although the proposed development plan is silent on lot size. Lot size requirements would therefore default to the underlying zoning requirements (proposed to be 'Large Lot Residential') being proposed as an average of 5,000sqm. It is notable that the present L2A Def requires an average lot size of 1ha.
- 17) To the immediate south and south west lies Living 1 (L1) zoning and L2A Def. This area was subject to Plan Change 24 which is now operative. The deferral has therefore been removed and subdivision of this adjoining land has now begun with a number of titles issued (an approved subdivision staging plan was granted on 16 March 2017). The outline development plan in Appendix 41 of the Operative District Plan has also been included in the Proposed District Plan as 'Darfield 1 Development Area'. Again, the proposed outline development plan is silent on lot size. Lot size requirements would therefore default to the underlying zoning requirements (although as noted, a subdivision staging plan has been approved). I note that in the Proposed District Plan, the L1 Zone is proposed to become 'Low Density Residential', with a minimum average lot size of 750sqm (the present L1 Zone in Darfield requires a 650sqm average size). The Living 2A Def Zone is proposed to become 'Large Lot Residential' with an average proposed lot size of 5,000sqm.

Figure 2 – Township/Rural Zoning in Operative District Plan. Plan change area outlined in black/white.

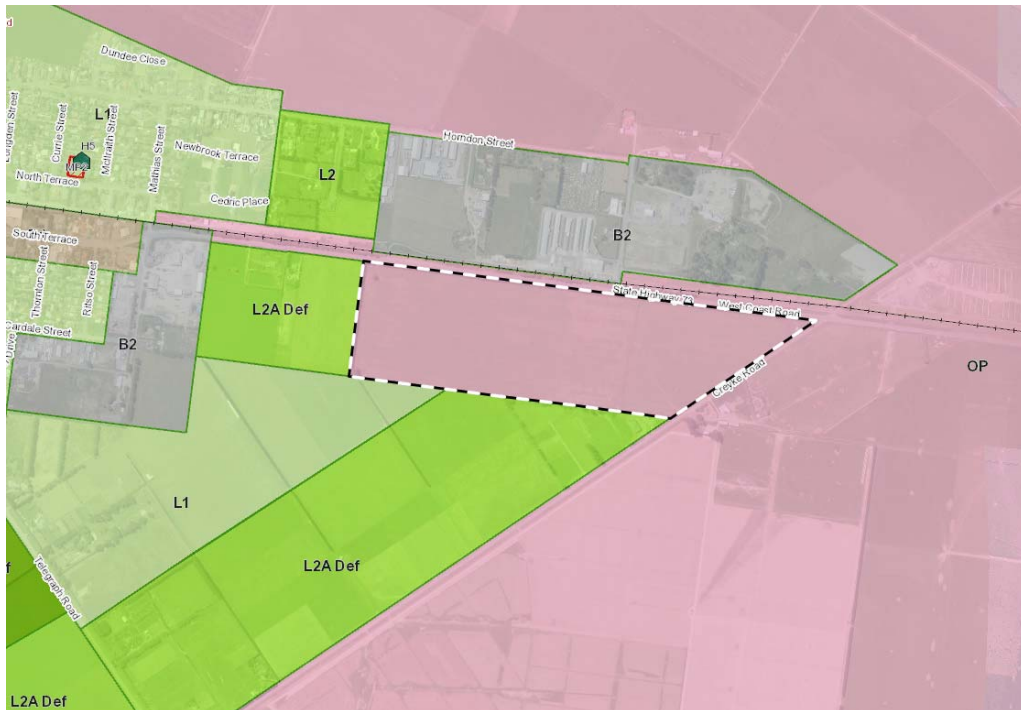


Figure 3 - Township/Rural Zoning in Proposed District Plan. Plan change area outlined in black/white.

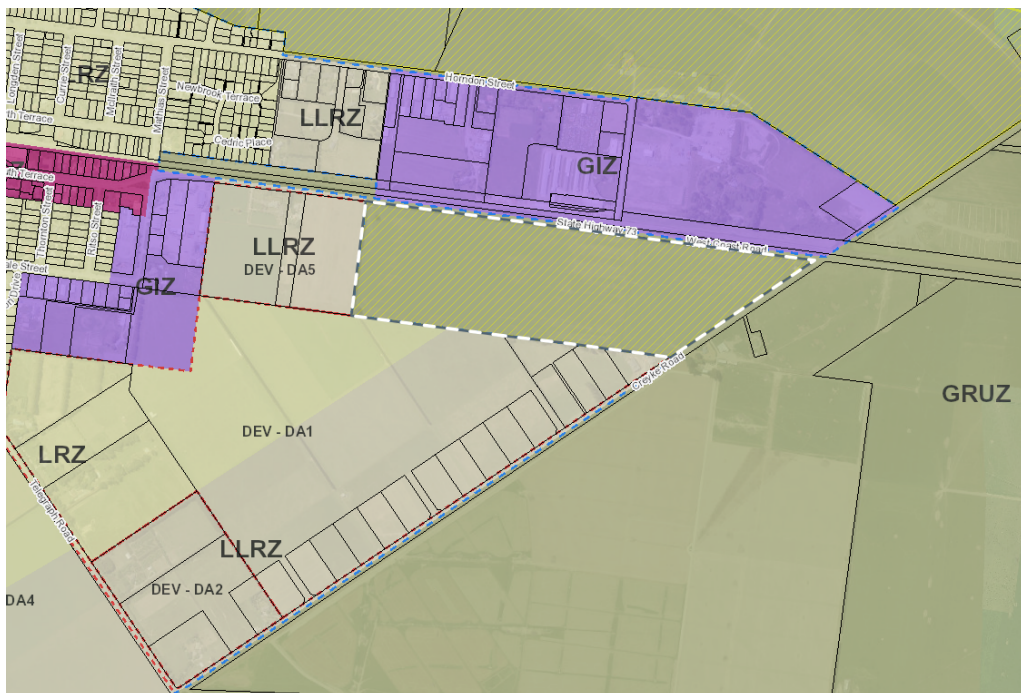


Figure 4 – Darfield 5 Developed Area – Proposed Selwyn District Plan



Surrounding environment

- 18) The township of Darfield is located approximately 42 kilometres west of Christchurch CBD (or 45km by road), approximately 25 kilometres northwest of Rolleston and approximately 14km from Sheffield. The township itself is served by State Highway 73 which links Christchurch with the West Coast and State Highway 77, which provides an inland alternative route to State Highway 1. The main rail line between Christchurch and the West Coast passes through the town. The town's population is around 3,000.

- 19) Within the township boundary, commercial development is concentrated along SH 73 (South Terrace) forming the town centre, with industrial uses largely to the north of the subject site and east of the town centre. Residential development consists of a variety of residential densities with smaller lot residential development concentrated in the area to the immediate north, south and south east of the town centre. There is also an established area of rural residential development to the west and south west of the town centre and on the fringes of the township to the north with lots ranging in size from 5,000sqm to 2 ha.
- 20) Darfield retains a small-town character and within the township there are a number of commercial activities that act to service the wider rural area. There is one primary school and high school as well as a medical centre. Notably Darfield is one of the largest towns in New Zealand that is not connected to a reticulated sewage treatment system.

Proposal

- 21) PC61 proposes to facilitate development of the plan change area by changing the zoning from Rural – Outer Plains to Living 1 and Business 2 and the insertion of an outline development plan into the Operative District Plan.
- 22) As notified, the breakdown between the two zones was for 7.1ha to be allocated for residential use (23% of the development area) and 17.5ha for business use (57.7% of the development area) with the remaining 6.61ha allocated for roading and road reserve (21.5%). This composition has changed following the proposed new ODP received on 11 February, 2021. Although not precisely specified, the new composition would appear to see approximately 3.5ha additional residential land (a total of 10.6ha) and a corresponding reduction in business land (a total of 14ha). The issue of whether this change is within the scope of the plan change as notified is discussed below.
- 23) The most recent ODP (below) specifies that there will be no more than 35 allotments and that, along most of the southern boundary, they (will have an average size of 1,950sqm - no minimum size is specified) and the balance to the east along Creyke Road will have a minimum size of 5,000sqm. The total land area given to each of these two areas with differing densities is approximately half each of the area of the site proposed to be Living 1.

Figure 5 – Amended Outline Development Plan (February 2021)



- 24) Both proposed densities are significantly less dense than the 650sqm average lot size required as part of the current Living 1 zone in Darfield. In the original proposal, the applicant states that this is to facilitate the ability for allotment owners to place dwellings further back from the residential/business zone interface within the development area as well as to enable greater consistency with adjoining rural and residential zoning and direction in the District Plan Review and national planning template.
- 25) In the letter accompanying the proposed change to the ODP on 11 February 2021, the applicant provided additional rationale stating that the change would enable Business 2 zoned activities to be setback from a proposed Groundwater Protection Zone in the north east of the site and provide larger allotments along the frontage that could support residential development and on-site servicing away from the road edge and outside the Groundwater Protection Zone. This change was a response to information supplied by Council that a water bore has been secured and a Groundwater Protection Zone covering a small portion of the plan change area was required. The change would also address a submission concern by Ascot Park Ltd (see Section 7 below) that there was an inadequate buffer between the Living 1 zone and the Outer Plains zone, through provision of larger allotments and retention of a 10m landscape strip.
- 26) No changes to the Plan's objectives or policies are required to facilitate the proposed plan change. There are however a number of changes required to maps, rules and appendices. Broadly speaking these include:
 - Inserting an outline development plan into the Township Volume of the Plan.
 - Amending the planning maps to rezone land from Rural Outer Plains to Living 1 and Business 2.

- Amending certain rules and adding new rules to facilitate the development of landscaping and setbacks in the plan change area as well as providing direction on the timing of the upgrade for the intersection at SH73 and Creyke Road.

27) Further detail on the changes to the plan proposed are provided in Section 9 of this report.

4. Procedural Matters

- 28) The process for making a plan change request and how this is to be processed is set out in the 1st Schedule of the Act.
- 29) The plan change request was formally received by Council on 13th August 2019. Following lodgement, the application was reviewed in terms of the adequacy of the information provided, with peer review advice received on traffic, urban design, infrastructure servicing, geotechnical investigations and planning matters. A request for further information was issued on 6th September 2019, with the applicant's response received in full on the 12th February 2020.
- 30) A decision was made by Council on 13th May 2020 to accept the request for notification pursuant to Clause 25(2)(b).
- 31) The application was publically notified on 1st July 2020, with the submission period closing on the 29th July 2020. A summary of submissions was then produced, with the further submission period closing on 16th September 2020.
- 32) PC61 has reached the point where a hearing is now required (Clause 8B), and a decision made on the plan change and the associated submissions (Clause 10).
- 33) As noted, an amendment to the original ODP was received on 11 February 2021. In terms of whether the change sought is within scope of matters raised by Council or submitters the applicant stated that it was within scope because the amendments are a consequence of information recently supplied by Council and partially a response to the Ascot Park submission. The applicant also notes that the change is not a significant departure from the proposal, with 35 lots still proposed, and a reduction in land for Business 2 and no other changes to plan provisions.
- 34) I concur with the applicant that the proposal is within scope for the above reasons.

5. Submissions

- 35) A total of eight submissions were received. No further submissions were received.
- 36) The submissions are set out in the table below and **Appendix 1** provides a summary of submissions and includes my recommendations to the Commissioner on each submission.

Table 1 – Summary of submissions

Submitter	Support or Oppose
1 P & C Poultry	Oppose
2 Environment Canterbury	Neutral
3 Ascot Park Limited	Oppose
4 Canterbury District Health Board	Oppose
5 Darfield Seed Cleaning Company	Oppose
6 Waka Kotahi NZ Transport Agency	Oppose
7 W.D Boyes and Sons Ltd T/A Canterbury Clay Bricks	Support (Withdrawn in part)
8 Nancy and Peter Boyes	Oppose (Withdrawn)

- 37) No submissions were received past the closing date for submissions. Four of the above submitters have indicated they wish to be heard (Ascot Park Ltd, Darfield Seed Cleaning Co Ltd, Waka Kotahi and Canterbury Clay Bricks).

- 38) Council received a request from Nancy and Peter Boyes to formally withdraw their submission on 17 February 2021. In addition, on 18 February 2021, Council received notice that W.D Boyes and Sons Ltd were withdrawing the substantive part of their submission, save reverse sensitivity effects, and changing their overall position to support.
- 39) For completeness I note that none of the submissions have stated that they relate to trade competition.

6. Statutory Framework

- 40) The general approach for the consideration of changes to district plans was summarised in the Environment Court's decision in Long Bay¹, the relevant components of which are addressed below.
- 41) The matters that must be considered in preparing a change to the Plan are set out in s74 of the Act. Amongst other things, s74 required the local authority to:
- a) comply with its functions under s31;
 - b) consider alternative, benefits and costs under s32;
 - c) ensure the necessary matters are stated in the contents of the district plan under s75; and
 - d) have regard to the overall purpose and principles set out in Part 2, including the matters of national importance (s6), the other matters (s7) that require particular regard to be had in achieving the purpose, and the Treaty of Waitangi (s8).
- 42) When considering a plan change, the Council:
- a) must give effect to any national policy statement (s75 (3)(a)) and any regional policy statement (s75 (3)(c));
 - b) shall have regard to any proposed changes to the regional policy statement (s74 (2)(a)(i));
 - c) shall have regard to any management plans and strategies prepared under other Acts (s74 (2)(b)(i));
 - d) must not take into account trade competition (s74 (3));
 - e) must take account of the Mahaanui Iwi Management Plan 2013 (s74 (2A)) and its predecessor, the Taumutu Natural Resources Management Plan; and
 - f) shall have regard to the extent to which the plan is consistent with the plans of adjacent territorial authorities (s74 (2)(c)).
- 43) The statutory documents that the proposed plan change is required to have regard to, and the manner in which the plan change request does so, is set out in Section 8 of this report.
- 44) There are not considered to be any directly relevant provisions in the District Plans of neighbouring territorial authorities that are affected by PC61.
- 45) Matters of cross-boundary interest are outlined in the Plan. The most applicable to PC61 include:
- a) Effects on the strategic and arterial road network from people commuting between Selwyn and Christchurch; and
 - b) Development on or near the boundary of Selwyn District and Christchurch City Council.
- 46) These have primarily been addressed and managed in an agreed partnership with the adjoining Councils through the co-ordinated urban growth of the Greater Christchurch area and through the Canterbury Regional Policy Statement (particularly Chapter 6), the Land Use Recovery Plan, the Urban Development Strategy and more recently Our Space.
- 47) I note that Darfield is not included within the Greater Christchurch area.

¹ Long Bay – Okura Great Park Society Inc. v North Shore City Council A 078/08

7. Assessment of Issues Raised by Submitters

- 48) As set out in Section **Error! Reference source not found.** above, eight submissions were received and seven remain active. This section provides an assessment of the submission points received and a summary of the included with the application and the expert evidence commissioned to inform the overall recommendations of this report and to make a determination on the relief sought by submitters.
- 49) I consider that the key matters either raised by submitters, or necessary to be considered in ensuring that the Council's statutory functions and responsibilities are fulfilled, are:
- a) Reverse sensitivity effects from adjacent existing industrial uses and internally between proposed Living and Business zoning.
 - b) The need for and appropriateness of the change in zoning to cater for growth.
 - c) Transport safety, connectivity and efficiency.
 - d) Three waters servicing.
 - e) Flooding
 - f) Site Contamination
 - g) Highly versatile soils
 - h) Amenity

a) Reverse Sensitivity

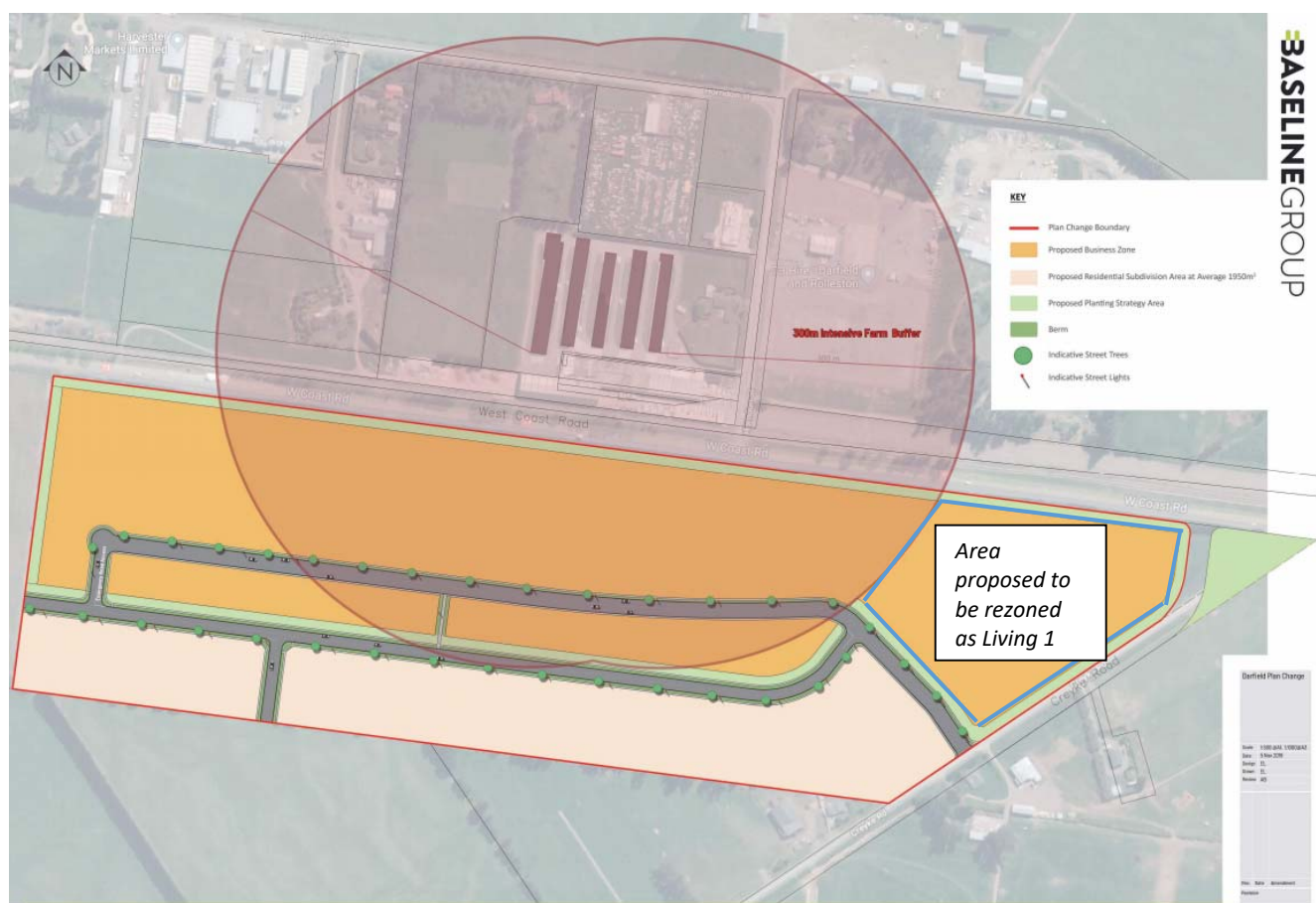
- 50) A reverse sensitivity effect can arise whereby an existing, lawfully established, activity experiences new development occurring on adjacent sites and those new occupants have differing amenity expectations that lead to complaints and subsequent restrictions on the existing activity.
- 51) The submissions of P & C Poultry and Canterbury Clay Bricks (CCB) both refer to the risk that reverse sensitivity effects may arise from new development in close proximity to the existing poultry farm and clay brick manufacturing plant. The poultry farm is located at 15 Horndon Street, Darfield just behind the clay brick plant which fronts the rail line, perpendicular to Horndon Street.
- 52) I note that CCB has, in its letter to Council dated 18 February 2021, arrived at a private agreement with the proponents of the Plan Change to place a 'no complaints covenant' on the titles of any new allotments within the Plan Change area. Despite this, I have still considered the possibility of reverse sensitivity effects arising from CCB and other uses outside the Plan Change area.
- 53) The applicant has supplied a report from NZ Air Ltd which considered potential source of emissions arising within the plan change area from the clay brick plant. This included point source emissions arising from the burning of coal and oil at the clay brick furnace, fugitive dust, ambient air quality and odour. Further information was supplied by NZ Air in response to a Council initiated peer review by Pattle Delamore Ltd.
- 54) The conclusion by Pattle Delamore Ltd concurred broadly with the findings of NZ Air that the effects of the discharge of combustion products (i.e. diesel oil, refined or recycled oil or coal) as well as dust and odour are likely to be low on the surroundings and less than minor within the plan change area.
- 55) CCB, in their submission, highlighted three possible sources of air generated reverse sensitivity effects including the clay brick works, the poultry farm at 15 Horndon Street and the land set aside by Council for future three waters work at Part Lot 1 DP 6651, to the east of Creyke Road. They sought the relief that the plan change be declined, although an option of the encumbrance of a no-complaints covenant on new titles in favour of CCB was suggested. CCB, in their submission, allege several inaccuracies with the methodology and conclusions of the report by NZ Air Ltd. To summarise, this includes:
- The assessment fails to account for future use and possible intensification of the site as well as the cumulative impact of other point source discharges added to background sources of contamination such as traffic on the State Highway.

- The lack of consultation between the applicant and CCB and the assumption that plant production rates are commercially sensitive, however CCB say they were not approached for this information.
 - An underappreciation of the north westerly wind in the Darfield area and the potential for air discharges to be carried to the south towards the Plan Change area.
 - An assumption that product on site is always damp during the manufacturing process, however crushing of product under an open ended canopy does occur in dry conditions. Although water suppression is used, this is not failsafe.
 - An assumption that continuous operation is highly unlikely, however CCB state that operations run for 11 months a year on a 24/7 basis.
- 56) CCB were also concerned that their air discharge consent, due for renewal in 2028, would be much more difficult to obtain with the changing environment.
- 57) CCB also raised the issue, as did the Darfield Seed Co, that there are potentially a wide range of activities that can occur on Business 2 zoning, which runs the spectrum from heavy manufacturing to offices, showrooms, warehousing and ancillary activities, which may find noise, dust and odour from existing nearby activities to be offensive. I agree that Business 2 is a permissive zoning category with a wide variety of activities able to take place as a permitted activity, including heavy manufacturing. Given that heavy manufacturing (something that would encompass CCB and potentially Darfield Seed Co), is within the permitted baseline of the Business 2 zone then I do not see why those businesses that establish in the Business 2 would have an expectation of amenity that would put them into conflict with CCB and Darfield Seed Co, providing both industries are adequately managing air discharges at their respective site boundaries.
- 58) I asked Pattle Delamore Ltd to comment specifically on the points raised in the submission by CCB. In a response, dated 15 February 2021 (attached as **Appendix 5**), Pattle Delamore advised that:
- Whilst they acknowledge that the distribution of wind using NZ Air's dispersion modelling differed from that observed at the nearest monitor station and measured winds show a higher frequency of northerly and north-westerly winds compared to modelling, the discharges are modelled on a continuous 24-hour basis over a three-year period. This means the worst case conditions would be observed, which is an appropriate assumption for short term 1 hr and 24 hour averages and thus the modelling is adequate for assessing the effects of CCB discharges.
 - Whilst it is the responsibility of CCB to ensure that there are no objectionable or offensive effects (such as fugitive dust) across the boundary, the rezoning may increase the area sensitive to dust in the immediate vicinity of the site. The main effects of nuisance dust can occur 100m from a significant dust source and beyond 200m the dust effects are considered to be negligible. Furthermore the activities at the CCB site are likely to small generators of dust, providing reasonable dust mitigation is employed.
 - The dispersion modelling assumed 24/7 operation of the plant and assumed maximum fuel usage rates with contaminants discharging continuously over three years. The modelling assumed a continuous emission rate combined with unfavourable meteorological conditions – the worst case scenario. This is considered to be a conservative estimate.
- 59) Based on this, it does not appear that the points raised in the CCB submission change the assumptions behind the original modelling by NZ Air Ltd, or the peer review by Pattle Delamore Partners, that came to the conclusion that any cross boundary effects from air discharges would be low.
- 60) A comment was made by CCB about future effects from the potential siting of a waste water treatment plant on Council owned land to the east of Creyke Road. Whilst I cannot address the effects of activities which may or may not occur, it is worth noting that it is possible, given available funding from Central Government, that a wastewater pipeline will be constructed to The Pines Waste Water Treatment Plant in Rolleston. Options for development of reticulation in the township will be subject to further consultation with the local community through the Draft Long Term Plan 2021-2031 but a pipeline, rather than

treatment at Darfield, is Council's preferred solution for treatment of sewage. I have discussed wastewater servicing on the plan change site in more detail under 'Three Waters servicing' below.

- 61) The report by NZ Air did not consider potential air discharges from the poultry farm. I checked with Environment Canterbury (ECAN) on whether any air related complaints have been generated for both the poultry farm and also the clay brick plant over the last five years. According to ECAN, no complaints were generated for the poultry farm (or indeed the clay brick plant) over the last five years. I note that under the rules of the Canterbury Regional Air Plan, poultry farms are required to avoid offensive and objectionable odour effects beyond the boundary of the site.
- 62) The ODP provided in the application shows that residential development will be located in the southern and eastern part of the site, away from the poultry farm. Under Rule 3.13.1.5 in the Rural Volume of the Selwyn Operative District Plan, sensitive activities in the rural zone, such as residential activities, are required to be setback 300m from intensive farming activities. Applying this approach to the residential development proposed in the plan change as a rough proxy for exposure to adverse effects, it is apparent that the proposed Living 1 zone in the development under the revised ODP is outside of the 300m buffer.
- 63) I therefore agree with the applicant that a sufficient buffer is capable of being put in place between the poultry farm and the proposed residential development. As noted earlier, the Business 2 zoning enables a wide range of activities, which could include potentially include sensitive activities under limited circumstances (for example residential units for security or custodial purposes as a controlled activity). However, given the permitted baseline and tolerance of effects in the Business 2 zone, I do not consider that the existing poultry farm will have a significant adverse effect on this proposed zone.

Figure 6 – PC61 ODP overlayed with 300m intensive farming buffer



- 64) I note that the potential exists for reverse sensitivity effects within the plan change area, given the adjacent zoning. The applicant intends to mitigate this through a landscape strip of 10m around the boundary of the business zone and the road width itself, which they state will create a 30m setback from the proposed living zone. I note that the amended ODP does not include an identifiable buffer between the proposed business zone and living zone on the north eastern side of the site where they immediately adjoin, although a rule is proposed that requires a 10m setback on any internal site boundaries where business zoning adjoins a residential zone.
- 65) In terms of whether a 30m setback is adequate, I note this was an issue when deciding Plan Change 24 (Silverstream) which is immediately adjacent to Plan Change 61, where a similar issue arose². Evidence given by Environmental Health Consultant Russell Malthus identified the following potential reverse sensitivity effects:
- Noise and vibration.
 - Hazardous substances, storage and use.
 - Light spill and glare.
 - Air discharges.
 - Electromagnetic radiation.
 - Waste generation, storage and disposal.
- 66) Here a 40m setback was deemed to be an adequate separation distance between the Business 2 Zone (located at Cardale St) and dwellings in the proposed Living 1 zone. An acoustic fence was to be erected along the southern and eastern boundaries of the Cardale Street Business Zone (Rule 12.1.3.14). The fence design/parameters was based on existing and quantifiable effects from established businesses.
- 67) I accept that the final separation distance for dwellings located on Living 1 zoned land to the south of the Business 2 zone is likely to be greater than 30m, given that dwellings will themselves need to be setback from the road boundary at a minimum of 4m. I consider that a consistent approach however (in terms of alignment with the decision and neighbouring ODP for PC24) would be to require a 10m setback for any dwelling from any road boundary where that road borders the landscaping strip set for the Business 2 zone. This would be 6m greater than the 4m generally required for a Living 1 zone from a road boundary, to a total setback of a dwelling from the Business 2 land of 40m. I note that dwellings located in the southern part of the Plan Change area may well be north facing, which may mean that residents who choose to undertake their outdoor living in the evening to take full advantage of the sun face the Business 2 zoning. I consider that the landscape strip could provide appropriate visual mitigation, provided appropriate species are selected and the strip is properly maintained.
- 68) Taking this into account, I consider that the 10m proposed internal setback as it would apply to the revised ODP in the north east of the site is insufficient and that the applicant needs to demonstrate a more suitable buffer is in place between the immediately adjacent business and residential zones, to ensure there is a consistent approach.
- 69) Further mitigation measures such as bunding and acoustic fencing may be required, depending on the nature of business that establishes within the Business 2 Zone. This can be dealt with through rules governing activities and their effects in the Business 2 zone and accommodated within the landscape buffer if needed.

Conclusion

- 70) I consider that the air discharge effects of the clay brick plant are likely to be less than minor on the plan change area, based on the specialist advice provided by NZ Air Ltd and peer review by Pattle Delamore. Whilst concerns have also been raised about the impact of the poultry farm, I consider that the effects are likely to be minor given that the residential component of the development sits outside the 300m buffer

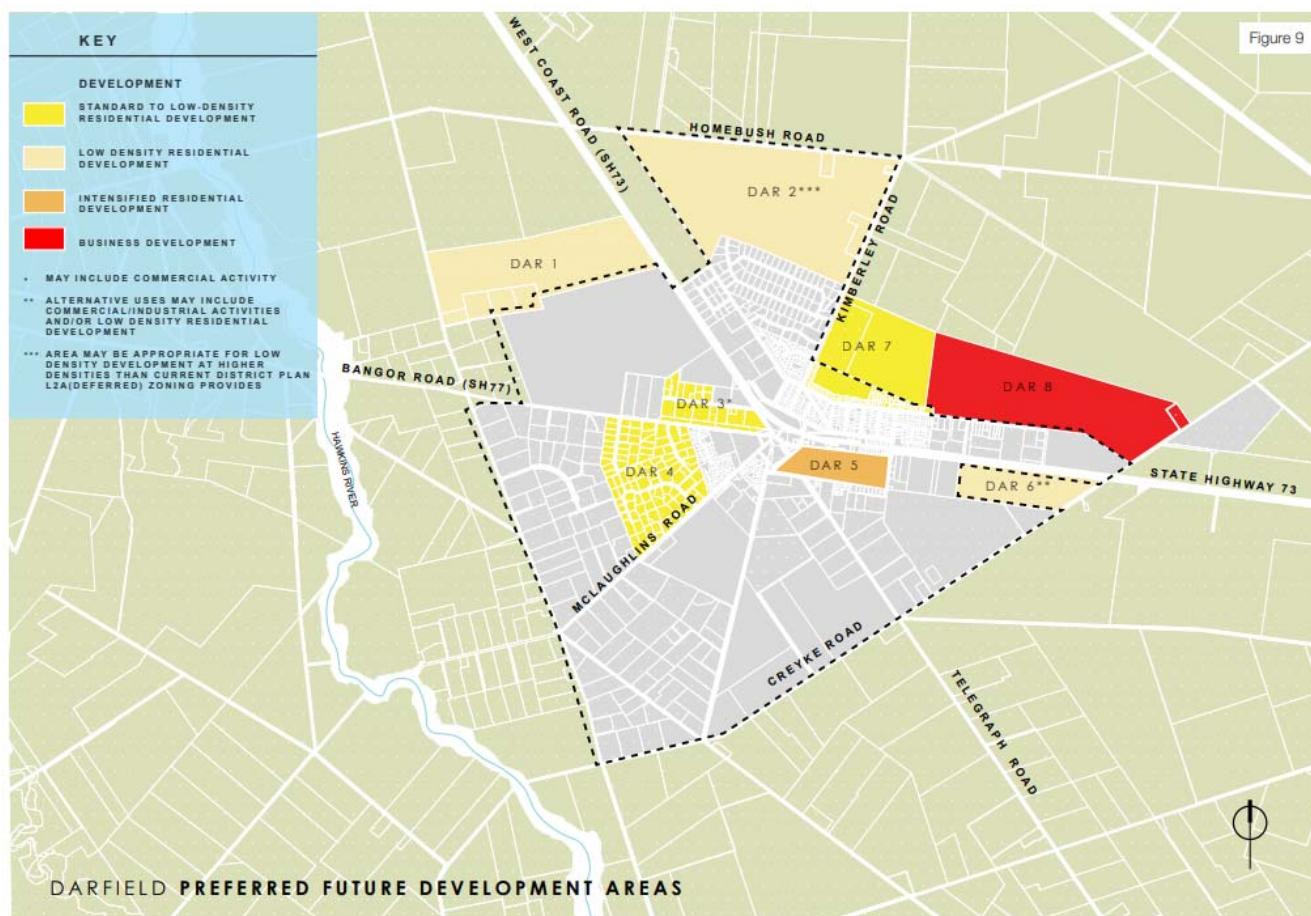
² https://www.selwyn.govt.nz/_data/assets/pdf_file/0005/92264/Section-42A-report-Jane-Whyte-031212-r.pdf

and would therefore typically be treated as a permitted activity, if located in a rural zone. The applicant has demonstrated that a buffer will be in place internally within the Plan Change area however this is not consistently applied in the ODP and I consider the applicant needs to demonstrate that an adequate buffer will be in place between the immediately adjacent business and residential zones in the north east of the site. In addition, I consider the standard setback requirement for a dwelling in the Living Zone of 4m from a road boundary should be increased to 10m, where bordering a road that is bounded by the landscape strip for the Business 2 zone.

b) The Need for and Appropriateness of the Change in Zoning.

- 71) Environment Canterbury (ECAN) in their submission are concerned that the development may be unnecessary, based on the availability of land already zoned but underdeveloped within the township and on population projections, residential and employment land capacity contained in the Malvern Area Plan and that if additional land is required, it may be better to consider this as part of a township or district-wide review. ECAN request that a thorough analysis is undertaken to determine the outcome re-zoning this land in light of direction in the Canterbury Regional Policy Statement and Proposed National Policy Statement on Highly Versatile Soils (I have addressed the issue of versatile soils separately in 'g' below).
- 72) Ascot Park Ltd oppose the plan change, partly on the basis of there being sufficient residential and business development land in Darfield, such as the Ascot Park subdivision and that the proposal represents an inefficient use of land. Darfield Seed Cleaning Co Ltd also opposes the plan change, again partly on the basis that they consider that there is sufficient development land already in Darfield.
- 73) The Malvern Area Plan anticipates reasonable growth for Darfield over the coming 15 years to 2031, with an increase of 440 households but identifies that there is existing capacity to accommodate up to 2,274 households within the boundary of the township. In addition there is 59ha of industrial zoned land of which approximately 23ha is available vacant industrial land.
- 74) The Malvern Area Plan concluded that there was sufficient available land to accommodate the projected growth without Council proactively zoning additional residential or business 'greenfield' land before 2031.
- 75) The Malvern Area Plan does however identify a number of sites where development may be appropriate before 2031 as part of a private plan change. The plan change area is one such site (DAR 6), identified as suitable for low density residential development but also potentially Business 2 as an appropriate alternative use. I acknowledge that the plan change is contemplating both these land uses, which is not necessarily a departure from the Area Plan according to Figure 9 of the Area Plan which suggests these uses could co-exist. I note that the Proposed District Plan identifies the site as being part of an 'Urban Growth Overlay' which largely reflects the intent of the Area Plan and signals that rezoning will be considered in principle.

Figure 7 – Darfield Preferred Future Development Areas



- 76) The Plan Change does require lot sizes that are in excess of the average size of 650sqm of the current Living 1 zone in Darfield. This is largely to reconcile that both residential and business zoned land will be within the Plan Change Area. The amended ODP proposes that a proportion of the residential land will contain lots sizes that are a minimum of 5,000sqm in size, which is larger still. The lack of a minimum size for the land proposed to have an average density of 1,950sqm is in my view problematic as this could lead to inconsistencies in the size of sites with a combination of very small and very large allotments. I consider that a minimum size should be required for the land that is subject to the proposed density requirement of 1,950sqm to safeguard against this possibility and to maintain amenity.
- 77) These radically different sizes to the anticipated average size of 650sqm do have the potential to undermine the integrity of the use of 'Living 1' zoning in Darfield. On the other hand the Area Plan recommends 'low density residential zoning' for the site. While not defined in the Area Plan, when compared to the average size for a standard Living 1 zone in Darfield, I believe this proposal can be considered to be 'lower density' consistent with the Area Plan. Additionally there is some discussion in the Area Plan that there are a lack of options in Darfield for sections averaging between 1,200sqm – 2000sqm, which is seen as a transition from standard to low density residential and which this proposal provides for. I also note that other living zone categories relevant to Darfield (Living 2 or Living 2A1) are not immediately useful as alternatives for the area proposed to be an average size of 1,950sqm, as they provide for average section sizes of 5,000sqm or 2ha. For that part of the development proposed to have a minimum lot size of 5,000sqm, the Living 2 zoning category may be more appropriate, although this mandates an average size of 5,000sqm.

- 78) Clearly the utilisation of Living 1 with larger lots than anticipated is not ideal and a mix of Living 1 and Living 2 may be more appropriate. Overall however there is a balance to be struck between maintaining zone integrity and managing potentially competing uses (business and living) and other site constraints by allowing a flexible approach, utilising larger allotments to allow sufficient setbacks and siting of residential use in relation to business land. I consider that overall, this balance can be struck, by increasing the setbacks as described above and ensuring the Business 2 zone standards are met (which might require further mitigation measures when the scale and effects of business development is known)
- 79) Turning to the specific points raised by ECAN, I agree that there is a surplus of business and residential land in the township as evidenced by the Area Plan. I also note that the Area Plan dates to 2016 and whilst relatively recent, the relevance of this document will inevitably decrease over time and it is important not to be overly bound to its assumptions given the pace of change in the district. As Darfield is outside of the Greater Christchurch Area, these provisions of the Canterbury Regional Policy Statement (CPRS), Chapter 6 do not apply to the plan change area. As such, the plan change should be considered primarily against CRPS Chapter 5. I note the applicant has provided a thorough assessment against Chapter 5 which I will discuss in more detail in Chapter 8 of this report below. The District Plan Review and the operative Malvern Area Plan do provide the district-wide and township review that ECAN suggest is needed and although Council have not proactively zoned the site for development, it has signalled that development proposals will be contemplated. I therefore do not consider that further strategic analysis is required at this time.
- 80) Addressing the Ascot Park and Darfield Seed Cleaning Co Ltd submission points together, I agree that whilst the Area Plan has indicated that no further greenfield rezoning is necessary, there is no policy that prevents new development being contemplated at this site. Lack of demand for new sections from existing development is not in-itself a reason to decline the plan change, providing site constraints identified in the Area Plan are addressed. I note that Ascot Park is a potential competitor to PC61 and the issue may be raised about whether the point about ‘oversaturation’ of residential zone land strays into trade competition territory. I am uncertain as to whether it meets this test. Regardless, I consider that there are no sound policy reasons to decline the plan change on the basis of a lack of existing demand for development.

Conclusion

- 81) I consider that the principle of a mix of residential and business zoning is, on balance, appropriate, taking into account higher level policy documents and the Malvern Area Plan. I note that a Plan Change is in itself an expensive exercise and this would suggest that there is demand for an alternative use of the site. Even if no development eventuates in the short term, the land can still be used for its current rural production use until such time it is developed.

c) Transport Safety, Connectivity and Efficiency

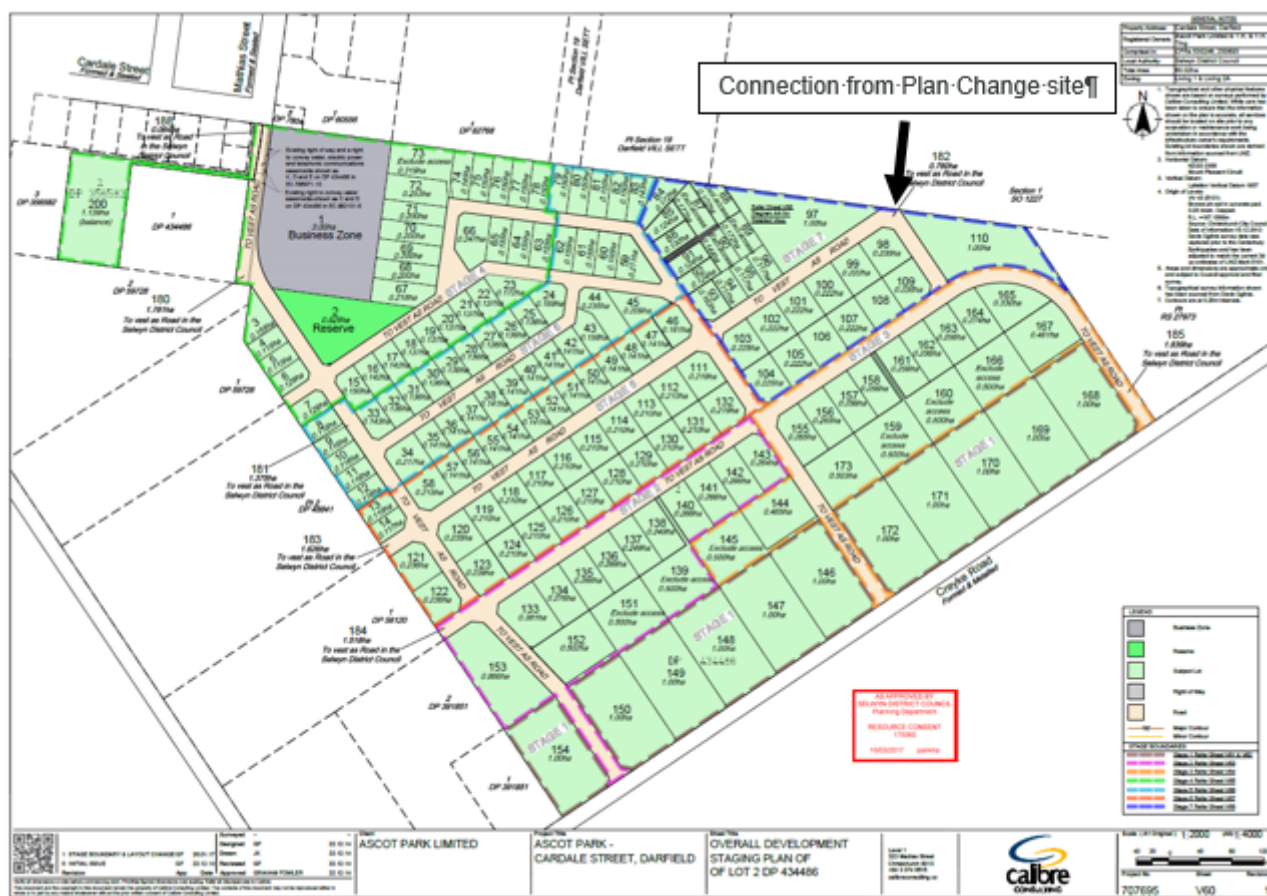
- 82) The application includes an assessment of the transportation issues associated with the plan change prepared by Carriageway Consulting in Appendix 9. This assessment has been peer reviewed by Mr David Smith of Abley Consulting, with his report appended as **Appendix 2** of this report. The assessment acknowledges the amended ODP received on 11 February 2021 and subsequent information supplied by the applicant on modelling the Horndon Street intersection on 17 February 2021. In summary he notes that the footprint of the business activity is reduced without a reduction in residential capacity which remains at 35 lots. This means that the level of traffic activity and any associated effects are likely to be slightly less than assessed in the ITA.
- 83) I would like to note that a pre-hearing meeting was held on 11 March 2021 to discuss a number of issues identified by Mr Smith (the meeting notes are appended to Mr Smith’s evidence). I consider that the meeting was useful to address some outstanding issues.
- 84) Despite this, Mr Smith has identified several areas of remaining concern (which I have grouped together into two topics), which lead to him being unable to support the Plan Change. These concerns are set out in

more detail below with reference to points made in submissions, where applicable. There is also the additional matter of inconsistency with the Christchurch Urban Development Strategy raised by Waka Kotahi which I have addressed separately.

Connectivity and Walking and Cycling

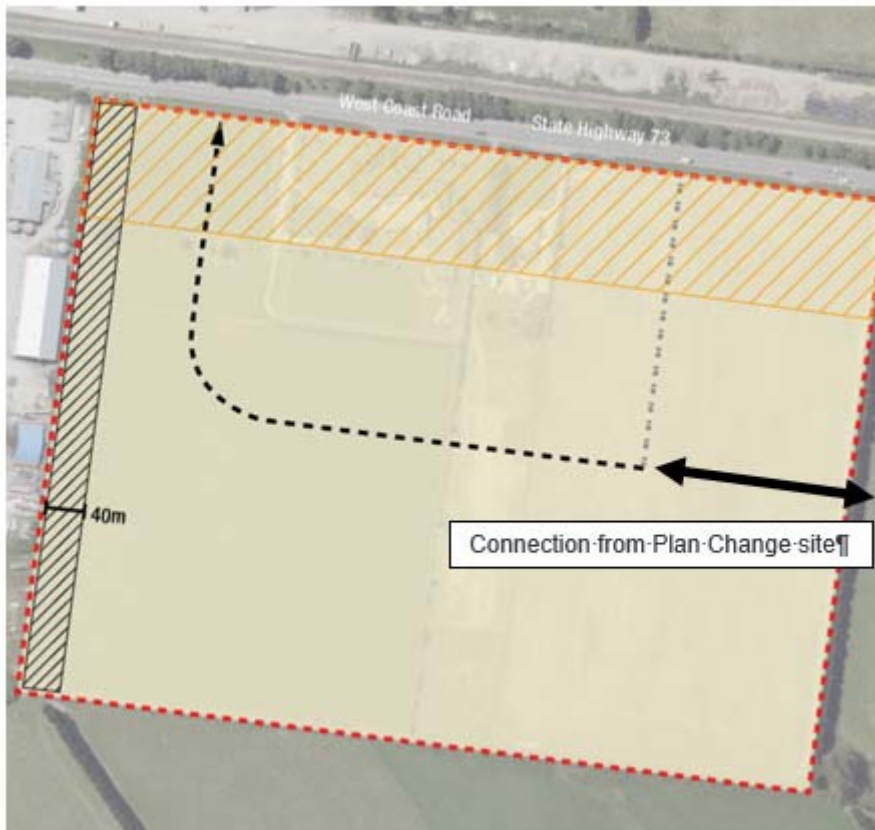
- 85) The submission of Ascot Park Ltd has raised concerns regarding the connectivity of the plan change area to the wider township and that the Outline Development Plan (ODP) is reliant on infrastructure on adjacent sites in order to provide adequate connectivity to the rest of Darfield. The layout includes road connections to the sites to the west and south. This issue also encompasses walking and cycling connectivity from the site which is also a key concern of Waka Kotahi.
- 86) Mr Smith considers that the lack of walking and cycling facilities is inconsistent with the Selwyn District Plan and the Canterbury Regional Policy Statement. He is specifically concerned that the potential use of Creyke Road and SH73 for walking and cycling is unsafe given the high speeds and lack of dedicated walking and cycling facilities.
- 87) In terms of considering alternatives, Mr Smith considers that the approved subdivision plan for Ascot Park does not explicitly account for a connection from the PC61 ODP area and any connection for traffic through the Ascot Park subdivision is likely to be somewhat circuitous, and is unlikely to be substantial in terms of improved vehicular connectivity to the wider network. However he does support a walking and cycling link in this vicinity to encourage uptake of these modes and provide a safer, lower speed alternative to walking and cycling along SH73.

Figure 8 – Ascot Park Subdivision – Approved Staging Plan (Potential Connection to PC61 Added)



- 88) He also considers the opportunity to utilise the site to the west, included in the Proposed Selwyn District Plan as Darfield Development Area 5 (DEV-DA5). The PC61 ODP has proposed a connection into this Development Area which Mr Smith supports and considers this connection is needed to provide safe and direct walking and cycling connectivity to Darfield Township from the application site and notes this would be a more direct connection from the Plan Change site to Darfield than the proposed connection through Ascot Park. Whilst this could include private vehicle use, traffic associated with the industrial component of PC61 should be discouraged as it will pass through a residential area.
- 89) He notes that the primary access to the business zone is located as close as possible to the primary site access on Creyke Road. To enable emergency access and egress, a second access has been included that leads directly into the proposed residential area. This access has been labelled as emergency access only on the ODP accompanying the RFI response but is not specified on the amended ODP received by Council on 11 February 2021. In his opinion, the status of this connection needs to be clarified.
- 90) Mr Smith considers that the connection between the cul-de-sac and residential ODP link can be designed and/or restricted to ensure heavy vehicles associated with the business zone are not travelling through the residential streets. However, there will be no way of preventing smaller commercial vehicles from using it as a standard site access. As it is plausible that a connection between the ODP and the township is achieved through Development Area 5, the location of the proposed B2 zone emergency access could encourage commercial traffic to travel westwards to access the state highway network, thus routing this traffic through residentially zoned areas both within this ODP and Development Area 5.
- 91) Based on likely traffic volumes however, he considers it is well within the capacity of a residential local road and, subject to suitable design features restricting heavy vehicles associated with the business activity from accessing the residential streets at the western end of the Plan Change site.

Figure 9 – Darfield 5 Developed Area – Proposed Selwyn District Plan (Potential Connection to PC61 Added)



- 92) Mr Smith has measured the current footpath provision which terminates at the vicinity of Matthias Street approximately 570 metres from the northwest corner of the site and Matthias Street. He agrees that provision of a walking and cycling connection from the Plan Change site directly to SH73 is not sufficient to address connectivity for pedestrians and cyclists with the additional 570 metre connection to existing facilities in Matthias Street.
- 93) He notes that the Applicant has not considered the proposed Darfield to Kirwee cycleway which appears in SDC's Walking and Cycling Strategy Action Plan and is in SDC's draft 2021-31 LTP. The location of the ODP would suggest an opportunity to connect from the application site to the future cycleway however I am aware that no route has been selected and funding from Council for construction is likely to be ten year's away at least.
- 94) In conclusion he states that the timing for the development of Ascot Park and the Darfield Development Area 5 are uncertain, however a safe and direct walking and cycling link should be provided between the Plan Change site and Darfield township prior to development of the site, either through Ascot Park, Development Area 5 and/or connecting into dedicated infrastructure along SH73 through to Matthias Street.
- 95) I have assessed this against the relevant statutory criteria in Section 8 of this report however I consider that the potential use of the State Highway to access the site by pedestrians and cyclists without dedicated facilities in a high speed area is inconsistent with objectives and policies in the Canterbury Regional Policy Statement and Selwyn District Plan.

Cumulative effects and impacts on the State Highway and Intersections

- 96) Waka Kotahi, Ascot Park Ltd and Darfield Seed Cleaning Co Ltd are concerned about an increase in traffic on SH73 and at nearby intersections with SH73 (notably Creyke Road and Horndon Street) as a result of the ODP.
- 97) Mr Smith has noted that cumulative effects from approved subdivisions had not been considered in the ITA when evaluating the impact of the Plan Change on the transport network. Five subdivision consents relating to approved PC24 and PC48, amounting to 224 residential lots have been approved in the nearby area. Subsequent to the ITA, Andy Carr (Carriageway Consulting) for the applicant has provided additional assessment of the cumulative effects of development and effects on the Creyke Road/SH73 intersection. Mr Smith agrees with the assessment of Mr Carr that a priority intersection has sufficient capacity for the expected traffic flows and considers that cumulative effects have been appropriately assessed.
- 98) Mr Smith also discusses the applicant's proposed changes to the SH73/Creyke Road intersection. The applicant proposes that the SH73 / Creyke Road intersection would be improved in stages based on defined 'triggers'. Following initial improvement of the intersection, a right-turn lane would follow at 10% development and a left-turn lane at 85% development. The ITA (paragraph 7.2.5) states *"these thresholds are influenced by whether any access to the plan change area is available from the west, and the extent of any development within the ODP area towards the south. At present, there is no such connection able to be formed, nor is any development proposed towards the south."* In the event of there being a connection to the west or development in the ODP areas to the south, Mr Smith states that it is unclear if and how the 'trigger' rules would need to be adjusted. Piecemeal upgrading of the intersection may have a greater impact on SH73 operation than if the works were completed all at once and there would be corresponding additional costs to the applicant and disruption to State Highway traffic. He therefore recommends that the full improvement works be undertaken prior to development (or subject to an agreed trigger rule) to minimise the effect on the state highway network. A trigger rule of 'Prior to any development within the Business 2 Zone, or prior to the development of the 18th residential allotment within the Living 1 Zone' was formally proposed in the initial plan change application. I note that at the meeting of experts on 11 March 2021, the applicant proposed a trigger rule where the full suite of upgrades are undertaken prior to any business land but after residential development, which Mr Smith supported in principle.
- 99) In terms of the issue raised by submitters about the safe and efficient operation of the SH73 and Horndon Street intersection, located approximately 500 metres to the west of Creyke Road, Mr Smith shared some of these concerns. The Applicant provided a technical note on 17 February 2021 addressing the performance of the SH73 / Horndon Street intersection which Mr Smith subsequently reviewed. The technical note demonstrated that the intersection performs well with good Level of Service and negligible queue lengths. He concluded from the Applicant's assessment that there will be no effects on the performance of the intersection associated with the Plan Change with regard to vehicular delays or queuing.
- 100) According to Mr Smith, there is still a lack of assessment of the safety impacts of the Plan Change along SH73 between Creyke Road and the existing urban limits to the east of Matthias Street. He considers that crash analysis and a potential increase in traffic of 23% above the assumed baseline increase indicates that there may be an underlying safety issue on the corridor which could be exacerbated by an increase in activity as a result of the application.
- 101) Mr Smith agrees that there is merit in reviewing (reducing) speed limits as this corridor becomes more urbanised including the introduction of a 'buffer zone' of 80 km/h, as opposed to the current immediate change from 50 to 100 immediately east of Matthias Street. To support this, he provides some analysis in his evidence that the Safe and Appropriate Speed along SH73 either side of Creyke Road through to the urban boundary and along Creyke Road is 80kph, which is lower than the current 100kph limit. This section of SH73 is also classified as being in the top 10% of Death and Serious Injury saving network sections and there are likely therefore to be high safety related benefits through reducing the speed limit. However, he also agrees with the applicant that this is not an RMA matter but a matter for Waka Kotahi and Council.

- 102) In conclusion Mr Smith considers that a more comprehensive assessment of impacts on the State Highway should be undertaken including consideration of safety effects along the SH73 corridor between Creyke Road and Matthias Street.
- 103) Again, I have assessed this against the relevant statutory criteria in Section 8 of this report however I consider that the potential safety issues raised by Mr Smith is inconsistent with objectives and policies in the Canterbury Regional Policy Statement and Selwyn District Plan.

Need to consider the Greater Christchurch Urban Development Strategy

- 104) Waka Kotahi consider that the Plan Change site should be considered against the provisions of the Urban Development Strategy (UDS) and Canterbury Regional Policy Statement. Using Statistics NZ 2018 Census journey to work data Mr Smith has calculated that approximately 36% of Darfield residents travel to the UDS area for work while approximately 10% of employees in Darfield originate from the UDS area. This demonstrates that there is some interdependence between Darfield and the UDS area.
- 105) Waka Kotahi have suggested that there is a risk to the successful implementation of the UDS from urban development beyond the UDS boundary by affecting residential demand within the UDS area.
- 106) Whilst I appreciate the concerns raised in this submission and note from Mr Smith's evidence that there is a level of interdependence between Darfield and Greater Christchurch, I consider this matter is outside the scope of the Plan Change. The plan change area currently falls outside of the area of concern of the UDS and was not recognised in the settlement pattern update or considered in the recommendations in Our Space for changes to the CRPS. I also disagree with the submitter that the site represents a 'large area of residential development'. The quantum of 35 lots is relatively small when considered against the population of the Greater Christchurch area.

Conclusion

- 107) I have noted the applicant's transport evidence, including the Integrated Transport Assessment and additional information provided as part of the Request for Information on 16 December 2019. However I accept Mr Smith's advice and consider that issues have been raised which are inconsistent with the objectives and policies of the Canterbury Regional Policy Statement and Selwyn District Plan. These include:
- the absence of links to undeveloped areas to the south and west and overall poor connectivity to Darfield Township; and
 - effects on the safe operation and performance of the State Highway network.
- 108) In addition, the application needs to demonstrate that the full suite of upgrades will be in place at Creyke Road/SH73 prior to, or at an appropriate trigger point, in the development of the Plan Change site.

d) Three Waters Servicing

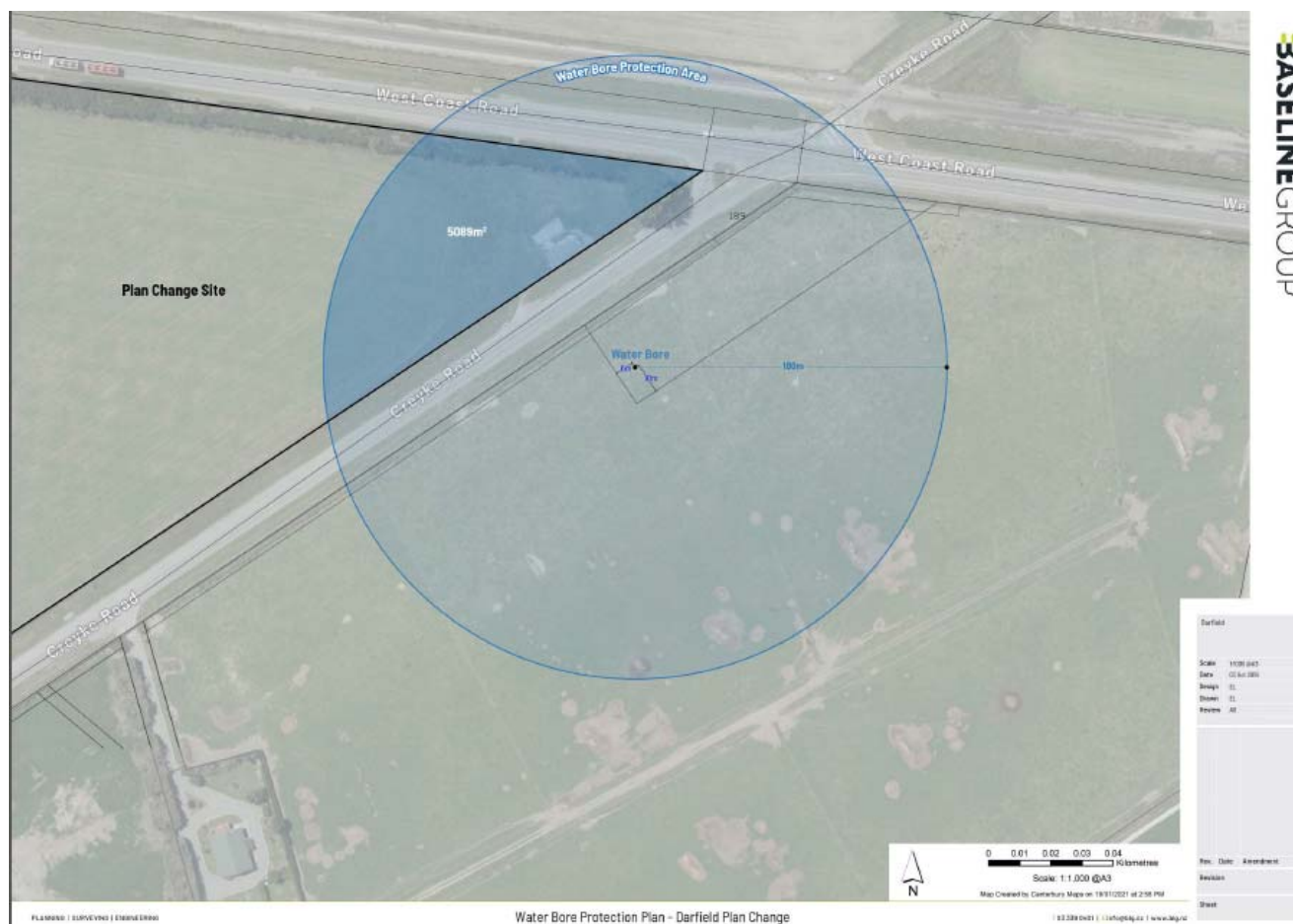
- 109) The application includes an assessment of infrastructure and servicing prepared by Baseline Group Ltd in Appendix 3. This assessment has been peer reviewed by Mr Murray England, Selwyn District Council's Asset Manager Water Services, with his report appended as **Appendix 3**.

Water supply

- 110) No submissions raised water supply as an issue.
- 111) According to Mr England, and in summary to his report, there is capacity for some growth in Darfield (with restrictions in place on water use).
- 112) The applicant notes that a new bore, pumps, reservoir and treatment facility will likely be needed to service the plan change area. To meet future growth needs in Darfield, a new well is currently being drilled on Council owned land on Creyke Road. If successful and a resource consent from ECAN is granted, water can be supplied to the proposed plan change area, service by on-demand on metred connections otherwise Mr England states that each individual lot will needed to be provided with a restricted water connection limited

to 3 units (3000 litres a day). A groundwater protection zone will be required around the well site if successful, which will entail restrictions on discharges on to land (refer to Figure 10 below)

Figure 10 – Proposed Groundwater Protection Zone



BASELINE
GROUP

- 113) In terms of providing water for firefighting needs, Mr England notes that the Darfield scheme was designed as a domestic supply which has been extended into surrounding rural areas and therefore not all areas within Darfield will comply with the NZ Fire Fighting Code of Practice due to reticulation sizing in rural areas.
- 114) Mr England notes that the infrastructure report contained in the proposed plan change states that the residential portion of the plan change area will be classified as fire water classification number 2 (FW2) with the commercial portion unknown at this time. Council, through its Engineering Code of Practice (Section 7.5.4 –Fire service requirements), requires that water supply reticulation complies with the New Zealand Firefighting Code of Practice SNZ/PAS 4509:2008 (Code of Practice). This will be achieved through adequate reticulated water pressure (for example through the new well if this is successful) or adequate on-site storage.

Wastewater

- 115) Wastewater was raised as an issue by ECAN and Canterbury District Health Board.
- 116) ECAN's concerns related to the timing of the plan change in relation to ongoing discussion with the community and investigatory work by the Darfield and Kirwee Wastewater Working Party on future wastewater servicing options for Kirwee and Darfield. It would be inefficient to have to switch from on-site treatment to reticulated network treatment at a future point in time when regional consents might be

refused or utilising on-site wastewater systems if there is the potential for a coordinated network approach in the future. Canterbury District Health Board appear to be opposed to the Plan Change 'in-principle' on the basis that they are seeking that all new developments in Darfield provide for reticulated sewage to avoid putting further pressure on water quality downstream of the township from on-site treatment systems. CCB concerns relate to reverse sensitivity effects caused by odour from a potential wastewater treatment plant on Council owned land east of Creyke Road.

- 117) Whilst I acknowledge that there are ongoing discussions around a potential reticulated system for Darfield this has not been confirmed in terms of design, timing, and ultimate approval. Therefore, I can only assess the applicant under the current infrastructure constraints on site, rather than speculate what may or may not happen in the future. Given this, the lot sizes proposed would mean that sufficient area of land is available to provide for an onsite land discharge area, which would then be subject to the Land and Water Regional Plan and ECAN consenting requirements.
- 118) Any ECAN discharge consent would then be the most appropriate way of dealing with a future scheme issue, by way of condition of the discharge permit that would require a dwelling to link in with a Council system within 12 months of a connection becoming available.
- 119) I note the Government's reforms to freshwater, the National Policy Statement on Freshwater Management 2020 and Te Mana o te Wai which may have a bearing on how resource consents for discharges to land are assessed by ECAN in the future.
- 120) As detailed in the letter to Council dated 22 January 2021, the applicant acknowledges that a Ground Water Protection zone is required over a small portion of the plan change area to protect a new community water supply bore currently being drilled. No discharge of wastewater should occur in this area. The letter concludes that *'it is likely that coordination with Council's reticulated system is feasible at the time of design and construction'*.
- 121) In my opinion and based on Mr England's report, there is presently no reticulated system but the applicant has proposed onsite treatment and discharge which can be accommodated by the proposed allotment sizes. Issues around nutrient discharge into groundwater is most appropriately dealt with through a discharge permit by ECAN.

Stormwater

- 122) No submitter raised stormwater as an issue.
- 123) The applicant has indicated that stormwater will discharge to ground via sump to soakhole which Mr England considers is appropriate.
- 124) In my opinion and based on Mr England's report, stormwater discharge can be appropriately accommodated on-site. It is noted that resource consent for stormwater from ECAN will be required before any subdivision consent is approved for any commercial development. Additionally, the same consideration for stormwater will apply to the proposed Ground Water Protection zone as for wastewater in that stormwater should not be discharged within this area and this would be subject to the consent process.

Conclusion

- 125) I consider that there are no water based infrastructure network reasons why the plan change should not be granted. Whilst I acknowledge ECAN and the District Health Board's concerns around wastewater disposal to land and consultation on the possibility of future reticulation, at this time I consider that wastewater can be disposed of to land and dealt with by way of a resource consent under the Regional Land and Water Plan, which has been the case for other development on allotments smaller than that proposed by this Plan Change in Darfield. The consent process will also ensure that the discharge of stormwater or wastewater within the Groundwater Protection Zone is avoided.

e) Flooding

- 126) ECAN note that rainfall runoff modelling shows that part of the site is subject to 1:200 year return period flooding. They recommend that any buildings forming part of this development have floor levels suitably above the 1:200 year flood level. The Operative Selwyn District Plan does not require buildings to mitigate the risk of a 1:200 flood event, being limited to only a 1:50 flood event. However I acknowledge the direction from the Canterbury Regional Policy Statement Policy 11.3.2 requiring floor levels suitably above the 1:200 year flood level and the requirement for district plans to 'give effect' to this. I note that the Selwyn Proposed District Plan does incorporate maps of 1:200 flood areas (those areas at risk of 5cm inundation or greater in the event of a 1:200 year flood) into the plan and requires that a 300mm floor level above the predicted flood level be achieved. Whilst the exact content of the proposed plan may change through the hearings process, including the 300mm requirement, whatever eventuates in the operative plan will need to give effect to the Canterbury Regional Policy Statement Policy 11.3.2 requiring floor levels suitably above the 1:200 year flood level. According to information supplied by ECAN³, the maximum predicted flood depths do not exceed 0.5m across the site area and therefore the maximum floor level height need not be above 0.8m above ground level. This risk is not spread evenly across the site, most of the site is not in fact identified as being flood susceptible. This is typical of many sites on the Canterbury Plains where the risk of flood inundation has been identified through discrete historic channels. I consider that a rule is required that requires an assessment of flood risk and proposed mitigation measures for subdivision and future land uses on the Plan Change site (refer to Chapter 9 below).

Figure 11 – Estimated Flood Depths (1:200 AEP)



Conclusion

- 127) I am satisfied that this matter can be adequately addressed through any future resource consents for subdivision and land use consents for earthworks, if required, providing a rule is in place in this Plan Change.

³ <https://apps.canterburymaps.govt.nz/SelwynNaturalHazards/>

f) Site Contamination

- 128) ECAN requests that a detailed site investigation should be undertaken to account for the risk of contamination from both a possum pit and another nearby pit with unknown material, identified as being towards the western boundary of the site. Due to the size of the possum pit, ECAN believe that other material may be present and it will not be possible to undertake remediation of the potentially hazardous material without a full understanding of the nature of any contamination. I note the Preliminary Site Investigation by Malloch Environmental Limited attached to the application which states that the presence of these pits is not an absolute barrier to the proposed plan change (and thus development of the site) from safely proceeding providing a detailed site investigation and remediation action plan be undertaken to ensure the future safe use of the site.

Conclusion

- 129) I note that ECAN's concerns relate to the possum and other pit which are relatively self-contained, rather than raising the possibility of any wider contamination issues. I am satisfied that the overall risk from contamination appears to be minor over the majority of the site, subject to a detailed site investigation and remediation action plan over the risk area identified in the preliminary site investigation. I however agree with the applicant that this matter can be adequately addressed through any future resource consent process, including that for land use and subdivision.

Figure 12 – Contamination identified on site



Figure 2 – Risk Areas Plan

g) Highly Versatile Soils

- 130) ECAN are requesting a thorough assessment of whether it is appropriate to re-zone the land for residential development in light of the direction contained within the Canterbury Regional Policy Statement and Proposed National Policy Statement on Highly Productive Land (PNPS-HPL).
- 131) According to the Land Resource Inventory, the class of soil on the site is Class III. The Canterbury Regional Policy Statement defines highly versatile soils as being either Class I or Class II.

Conclusion

- 132) The Canterbury Regional Policy Statement is only concerned with Class I and II soils, not Class III. The PNPS-HPL is a future national policy statement that has not yet been finalised and has no legal effect. Whilst soil

quality is a relevant issue across the district, in my opinion, the specific issue of highly versatile soils (as currently defined in the Canterbury Regional Policy Statement) does not apply to the Plan Change area.

h) Amenity

- 133) Ascot Park Ltd are concerned that the proposal does not include a 1ha buffer along Creyke Road, which would make it consistent with all other properties along Creyke Road from West Coast Road to Telegraph Road, which could reduce the amenity of the surrounding area.
- 134) The 1ha buffer refers to the intent to have 1ha sized lots along Creyke Road in association with the Ascot Park subdivision and Plan Change 24 area to provide a transition between denser subdivision to the west and the Rural Outer Plains zone to the east. Here a 20m setback was seen to be an adequate buffer between dwellings and the Outer Plains zone. I note that a 20m setback from the rural zone by any dwelling located in the living zone is likely to be obtained by factoring in the road width of Creyke Road itself, plus a required 4m setback from the road. This, combined with the fact that the applicant is now proposing larger allotments (5,000sqm minimum) fronting Creyke Road plus (if this is intended) a 10m landscaping strip along a portion of Creyke Road itself, is I consider sufficient without the need for requiring larger lots of 1ha or greater.
- 135) Amenity is a valid consideration for the interface between Business 2 and Living 1 within the Plan Change area. With sufficient setbacks and landscaping, as proposed by the applicant and also though those recommendations in this report, I believe amenity can be maintained.
- 136) I would also like to note that a setback is required from the State Highway of 40m for any dwelling, where the State Highway exceeds 70kph (Rule 4.9.3 Township Volume, Selwyn Operative District Plan).

Conclusion

- 137) I consider that the Plan Change application can maintain amenity by providing an adequate buffer from the rural zone and, with amendments, between the Business and Living zones internally within the Plan Change area.

8. Statutory Analysis

- 138) In considering the contents of District Plans, Council must give effect to any operative national policy statement (s75 (3)(a)) and any regional policy statement (s75 (3)(c)) and have regard to any proposed regional policy statement (s74 (2)(a)) and any management plan or strategy prepared under other Acts, including the Local Government Act (s74 (2)(b)(i)).

National Policy Statement on Urban Development 2020

- 139) The plan change application does discuss the National Policy Statement on Urban Development Capacity through a 'Request for Information' however this has since been superseded by the National Policy Statement for Urban Development (NPS-UD) which came into effect in August 2020. It is appropriate therefore to consider this Plan Change in the light of the new national policy statement.
- 140) Whilst Selwyn District is a 'Tier 1' authority, subject to the majority of objectives and policies in the NPS-UD, these provisions primarily relate to an 'urban environment'. The NPS-UD defines an urban environment as "any area of land (regardless of size, and irrespective of local authority or statistical boundaries) that either is, or is intended to be, predominantly urban in character; and is, or is intended to be, part of a housing and labour market of at least 10,000 people."
- 141) Darfield currently has a population of approximately 3,000 and while the Malvern Area Plan projects the population of Darfield to grow by 39% by 2031, this growth will still be less than 10,000.
- 142) Several objectives and policies of the NPS-UD have a broader applications than 'urban environments'. This includes Objective 2 which states that planning decisions will improve housing affordability by supporting

competitive land and development markets and Policy 2 which states that local authorities at all times must provide sufficient development capacity to meet expected demand for housing and for business land over the short, medium and long term. Whilst I am not aware of any constraints on available development land in Darfield, I consider that the Plan Change is nevertheless consistent with the intent of this objective and policy by increasing the availability of land for housing and business in the Darfield area.

- 143) As Darfield is not classified as an urban environment, and the NPS-UD is largely (with the exception of the above) not directly applicable to this Plan Change, I consider that the plan change request does not need to be assessed against the full suite of objectives and policies of the NPS-UD.
- 144) I also note, for completeness, that the Greater Christchurch Partnership has determined that urban environment subject to the NPS-UD is the Greater Christchurch Region, as shown on Map A within Chapter 6 of the CRPS.
- 145) I consider that, currently, the only National Policy Statement relevant to the application is the NPS-UD.

National Environmental Standard for Assessing and Managing Contaminations in Soil to Protect Human Health (NESCS)

- 146) A Preliminary Site Investigation ('PSI') was prepared by Malloch Environmental Ltd (MEL) in December 2017 in support of this Plan Change application. The reports concluded that there is a risk of soil contamination associated with a former poisoned possum disposal pit, and other potential waste material disposed to a former quarry pit. These are confirmed HAIL activities and there may be a risk to human health from potentially contaminated soils. A Detailed Site Investigation and Remediation Action Plan will need to be produced to provide surety that the site is safe for residential development. Through the PSI, the report concluded that the presence of the two disposal pits was not a barrier for development to proceed.
- 147) As this is an application from a zone change, and not the actual use of the site, the NESCS does not strictly apply. However, I consider that the appropriateness of residential use for the area has been established to an appropriate level of detail for the purposes of this process. Further evaluations will be required through any subsequent consent processes.
- 148) This is the only National Environmental Standard that appears to be directly relevant to this plan change application.

Canterbury Regional Policy Statement (CRPS)

- 149) Section 4.8 and Appendix 7 of the application contain a comprehensive assessment of the proposal against the relevant objectives and policies of the CRPS and conclude that the proposed plan change is generally consistent with the existing provisions.
- 150) The application site is located outside of the 'Greater Christchurch' part of the Region and therefore Chapter 6 of the CRPS does not apply. Urban growth is instead managed primarily through Chapter 5.
- 151) Chapter 5 recognises the need to provide for the region's urban growth, however this is not an open ended provision, rather growth should only occur in a manner that achieves the following outcomes (relevant to this Plan Change):
 - a) a consolidated and connected urban form i.e. is adjacent to, and connected with, existing townships and has logical boundaries;
 - b) provides sufficient housing choice to meet the Region's housing needs;
 - c) encourages sustainable economic development by enabling business activities in appropriate locations;
 - d) minimises energy use/promotes energy efficiency;
 - e) is able to be efficiently serviced;
 - f) is able to be integrated into the transport network;

- g) does not constrain the use or development of Regionally significant infrastructure;
 - h) maintains and where possible enhances the overall quality of the natural environment, including outstanding natural features and landscapes;
 - i) avoids conflicts between incompatible activities;
 - j) avoids locating new development in areas exposed to a high risk of natural hazard
- 152) The proposed plan change achieves some of these outcomes in that it is adjacent to the township boundary of Darfield, being identified as suitable for low density residential or business land, will provide for housing choice within the township, is able to be appropriately serviced (subject to the necessary consents) and is not in an area with identified outstanding landscape or other natural values. I consider that a rule is required to ensure that further assessment and mitigation of flood risk is considered, at the time of any future resource consents for subdivision or land use activities. I also consider that amendments are required to ensure that there is an appropriate internal buffer between Business and Living zoned land to avoid conflict between incompatible activities. I note the evidence from Mr Dave Smith of Abley Ltd that suggests that in its present form, the application does not demonstrate that it will be able to integrate effectively or safely with the existing transport network, including the State Highway, which is considered to be regionally significant infrastructure. Objective 5.2.2 *Integration of land-use and regionally significant infrastructure* requires development that does not result in adverse effects on the operation, use and development of regionally significant infrastructure. Implementing Objective 5.2.1 and 5.2.2 is Policy 5.3.7 *Strategic land transport network and arterial roads* which requires the avoidance of development which adversely affects the safe efficient and effective functioning of the strategic land transport network.
- 153) Therefore I consider that PC61 is unable to fully 'give effect' to the CRPS at a strategic level in respect of Chapter 5, in particular Objective 5.2.1 (Location, Design and Function of Development – Entire Region) subparts f and g, Objective 5.2.2 (Integration of land-use and regionally significant infrastructure – Wider Region) and Policy 5.3.7 (Strategic land transport network and arterial roads – Entire Region).
- 154) I also note that the Plan Change needs to give effect to Objective 11.2.1 (Avoid new subdivision, use and development of land that increases risks associated with natural hazards) and Policy 11.3.2 (Avoid development in areas subject to inundation - unless new buildings have an appropriate floor level above the 0.5% AEP design level). I consider this can be managed through an additional rule attached to this Plan Change that requires assessment and mitigation at the consenting stage of development.

Canterbury Land and Water Regional Plan (LWRP)

- 155) Section 4.8 of the application assess the proposal against the relevant provisions of the LWRP that provide direction in terms of the processing of resource consent applications related to the management of land and water resources in Canterbury. It is considered that the objectives of the LWRP are applicable when considering the proposed plan change.
- 156) The ability of the plan change area to efficiently discharge wastewater and stormwater has been discussed above.
- 157) In summary, the ability of the plan changed area to efficiently discharge wastewater and stormwater has been discussed above. Stormwater will be disposed of directly to ground via sump to soakhole, which is an appropriate disposal solution for this site. At present there is no reticulated wastewater infrastructure available in Darfield. Although a future reticulated system in Darfield may eventuate and the applicant has indicated development could connect to this, at this time I consider that on-site disposal is feasible given that stormwater and wastewater discharges are typically granted or permitted within this area. Based on the similar site characteristics of this site to the rest of Darfield it is envisioned that this aspect would not preclude development of this site. The detailed design of appropriate systems will form part of any subsequent discharge consent process required under the LWRP by ECAN.
- 158) I consider that the proposal can be efficiently and effectively serviced in a manner that maintains water quality and quantity and is consistent with the outcomes sought by the LWRP.

Mahaanui Iwi Management Plan 2013

- 159) Section 4.8 of the application assesses the plan change request against the relevant provisions of the Mahaanui Iwi Management Plan.
- 160) While there are no specific areas of cultural value identified on the application site, the applicant states that there are sufficient setbacks maintained from waterbodies, such as the stock race running along the southern boundary of the site. If wastewater is disposed of on-site, there is sufficient separation distance from groundwater to avoid contamination of groundwater and surface water. Likewise, stormwater will be disposed of in a manner consistent with the Iwi Management Plan.
- 161) I consider that the proposed plan change will not compromise the values set out in the Mahaanui Iwi Management Plan 2013.
- 162) I also note that the Taumutu Natural Resource Management Plan, the predecessor to the Mahaanui Iwi Management Plan 2013, is relevant as it was never formally repealed. As above, I consider that the proposed plan change will not compromise the values set out in that plan.

Operative District Plan

- 163) Section 4.8 and Appendix 8 of the application contains a comprehensive assessment of the proposal against the relevant objectives and policies of the Township Volume of the Plan and concludes that the proposed plan change is consistent with the existing provisions.
- 164) I consider that the assessment contained within the application correctly identifies the relevant objectives and policies that apply to this plan change request.
- 165) I accept a number of the conclusions reached in the application that the proposed plan change is consistent with the existing objectives and policies of the Plan. However, taking into account Mr Dave Smith's evidence, I do not consider that the applicant has adequately demonstrated that the Plan Change meets certain Objectives and Policies under the Physical Resources section of the Operative Selwyn District Plan. These include Objectives B2.1.1 and B2.1.2 and Policies B2.1.2 and B2.1.3.
- 166) Objective B2.1.1 and Policy B2.1.2 relate to integrating land use and transport planning to ensure the safe and efficient operation of transport infrastructure and avoid adverse effects from surrounding land use. Objective B2.1.2 and Policy B2.1.3 require that reverse sensitivity effects on the operation of transport networks are avoided and require protection of the function of key road corridors. Mr Smith has identified that the effects of safety on the State Highway have not been fully assessed and that there are identifiable safety concerns with the road from Creyke Road to Matthias Street. He has identified a change in speed limit from 100kph to 80kph would improve safety on the corridor, in light of development within the Plan Change area. The problem is, a condition requiring this is not enforceable under the RMA and would require agreement with Waka Kotahi. I can only consider what is possible under the RMA, or in place as of now, and therefore agree with Mr Smith that the Plan Change, without further assessment and mitigation, has the potential to affect the safe and efficient functioning of the State Highway.
- 167) Mr Smith also has concerns that there is no mechanism to ensure that safe access by pedestrians and cyclists to Darfield will be in place prior to development. Whilst this could be provided in the future through neighbouring sites, this may not align with the development of Plan Change 61 and therefore there may be a period of time where there is no safe walking and cycling access to the site with use of the grass reserve of the State Highway as a possible alternative. I agree that the Plan Change is inconsistent with the Selwyn District Plan in this regard as it fails to manage the effects of development on the safe operation of the State Highway.
- 168) Therefore I consider that PC61 is unable to fully 'give effect' to the Operative Selwyn District Plan in respect to the above identified objectives and policies at this time.

Selwyn District Development Strategy 2031 and Malvern Area Plan

- 169) Section 4.8 of the application includes an assessment against the Malvern Area Plan, adopted by Council on September 2016. As previously stated, the Plan Change area is identified as a potential site for future low density residential and/or alternatively as Business 2 (Darfield Area 6-DAR 6). The assessment does identify some of the advantages of the site that are highlighted in the Area Plan, such as suitability of servicing the site and providing for a concentric growth pattern with the wider township although is silent on addressing the disadvantages. These include (as identified on page 29 of the Area Plan), reverse sensitivity impacts from residential development within the Plan Change area in respect of the industrial land to the north as well as the presence of Class III versatile soils. I consider that the Plan Change is able to manage reverse sensitivity effects through the proposed layout of the site and appropriate buffers. Whilst Class III versatile soils are present on site, there is no higher order policy in effect that gives this matter preference over the proposed use of the site.
- 170) I also note that the PC61 is in general, consistent with the actions identified in the Selwyn District Development Strategy 2031.

9. Proposed Amendments to the District Plan

- 171) This section considers amendments required to the district plan through the Plan Change application including a staff assessment of the proposed changes by the applicant and further recommended changes.

Objectives and Policies

- 172) The objectives and policies of the Living 1 and Business 2 zone are operative and well settled. PC61 does not propose any amendments to the objectives and policies, and I do not consider that any are necessary.

Rules

- 173) The applicant has proposed a number of rule changes to be incorporated into the Township Volume of the Selwyn District Plan.
- 174) I agree that an amendment to Rule 12.1.3.16 is necessary in order to ensure subdivision complies with any ODP inserted into the plan governing development on the PC61 site (Amendment 3).
- 175) I also agree that a new rule is required to ensure that a potable water source is available for the development prior to any subdivision (Amendment 4).
- 176) Again, I agree with the applicant that a new rule is required to enable the upgrade of Creyke Road/SH73 intersection (Amendments 5 and 8). Mr Smith in his evidence states that the full suite of upgrades should be in place either prior to the development of the Plan Change site or through an appropriate and agreed trigger rule. I agree, although no trigger rule has been formally proposed other than that originally proposed by the applicant however I note the applicant's proposal as per the meeting of experts on 11 March 2021 and I have suggested an amendment along these lines.
- 177) A new proposed rule governing landscaping is appropriate (Amendment 6) and I agree with the various triggers that are proposed by the applicant. The rule will need to be amended slightly as currently drafted, does not allow for noise attenuation measures to be provided, if necessary within the landscape strip. The rule also refers to a landscaping strip along the 'common boundary', however the ODP does not show a landscaping strip between the Business and Living Zone where they adjoin in the north east portion of the site. Finally, the amended ODP shows a landscape strip around a portion of the Living Zone. If the applicant intends for this to remain (this was present in an earlier iteration of the ODP when the portion of the site was to be zoned Business), then the rules will need to be tweaked accordingly.
- 178) I also agree with the proposed setback rule (Amendment 7) between the Business 2 zone and road boundaries of 10m. However as I have concerns about reverse sensitivity within the site area, I recommend rules requiring a setback of 10m of any dwelling from any road boundary which also borders the landscape

strip attached to the Business Zone. I also recommend that internal boundaries setbacks are amended to require an effective 40m buffer between a dwelling in the Living Zone and the boundary of the Business Zone.

- 179) To address Mr Smith's concerns about walking and cycling access to Darfield township, it may be necessary to insert a 'trigger rule' to restrict development of the site until such time that convenient and safe walking and cycling access is secured. At this time, no such rule has been suggested or accepted.
- 180) To ensure the Plan Change gives effect to Policy 11.3.2 of the Canterbury Regional Policy Statement, I consider that a rule is required that ensures that flood risk is assessed and measures are identified that mitigate any identified flood risk prior to the granting of subdivision or land use consents.

Planning Maps

- 181) The applicant has proposed an amendment to the Planning Maps to rezone the application site from Rural (Outer Plains) to Business 2 and Living 1. I concur that this is a necessary amendment, should the Plan Change be accepted. It may be appropriate for that part of the area proposed to have allotments of a minimum size of 5,000sqm to be zoned as Living 2 rather than Living 1.

Outline Development Plan

- 182) The plan change does propose to include an ODP. I consider that the overall plan is the only ODP necessary to be included in the Plan, should the plan change be approved. This is consistent with the approach taken in the proposed district plan, of consolidating information from multiple layers into the one ODP. I consider that the ODP should be amended to specify a minimum allotment size for that area specified as having an average allotment size of 1,950sqm.
- 183) I consider that an amendment is required to the ODP to clarify the status of emergency access within the Plan Change area.
- 184) I consider that the proposed ODP needs to be amended to include an identifiable buffer between Business and dwellings located in the Living zone, where they immediately adjoin to the north east of the site. The buffer should incorporate a setback equivalent to that provided for in the southern part of the site which I recommend to be 40m (which amounts to the landscape strip of 10m, plus the road of 20m, plus the setback from the road of 10m).
- 185) The ODP may need to be amended further to demonstrate that there will be convenient and safe access to the site from Darfield Township for pedestrians and cyclists, if an acceptable solution can be arrived at.

Proposed amendments to the District Plan (Townships Volume) and Officer Recommendations

Text proposed to be inserted by the applicant is underlined, while text proposed to be deleted is ~~struck through~~ and included in the left hand column. Subsequent officer recommendations recorded against the applicant's proposed changes are included in the right hand column.

Provision	Proposed amendments by applicant	Officer recommendations
New Appendix	Add <u>Appendix X ODP – Darfield East</u> to Township Volume	Accept in Part 1) Amend the ODP to specify a minimum allotment size for that area specified as having an average allotment size of 1,950sqm.

Provision	Proposed amendments by applicant	Officer recommendations
		2) Amend the ODP to clarify the status of emergency access within the Plan Change area. 3) Amend the ODP to include an identifiable buffer between Business and dwellings located in the Living zone, where they immediately adjoin to the north east of the site. The buffer should incorporate a setback equivalent to that provided for in the southern part of the site which I recommend to be 40m (the landscape strip of 10m, plus the road of 20m, plus the setback from the road of 10m). 4) Amend as necessary the ODP to demonstrate that there will be convenient and safe access to the site from Darfield Township for pedestrians and cyclists, to reflect any mutually agreed solution. 5) Consider utilising Living 2 rather than Living 1 for that part of the Plan Change area proposed to have minimum allotment sizes of 5,000sqm.
Planning Maps	Amend Planning Maps to rezone the application site from Rural (Outer Plains) to Business 2 and Living 1 consistent with the proposed ODP.	Accept. (Consider utilising Living 2 rather than Living 1 for that part of the Plan Change area proposed to have minimum allotment sizes of 5,000sqm).
Rule 12.1.3.16	Amend as follows: <i>Any subdivision of land within the area shown in Appendix 47 - Living 2A Darfield - Bangor Road Outline Development Plan, and within the area shown in Appendix 41A - Living 2 Darfield - Creyke Road Outline Development Plan, and within the area shown in Appendix X - ODP- Darfield East, shall comply with the layout and contents of that Outline Development Plan and shall comply with any standards referred to in the Outline Development Plan.</i>	Accept
New Rule	Insert new rule after Rule 12.1.3.16 as follows: <u>No subdivision of land in the Living 1 zone shown in the ODP - Darfield East in Appendix X shall take</u>	Accept

Provision	Proposed amendments by applicant	Officer recommendations
	<u>place until a potable water supply is available that is capable of serving lots within the subdivision.</u>	
New Rule	Insert new rule after rule 12.1.3.16 as follows: <u>Prior to any development within the Business 2 Zone, or prior to the development of the 18 th residential allotment within the Living 1 Zone (whichever occurs first) shown in the ODP – Darfield East in at Appendix X, the intersection of Creyke Road and State Highway 73 shall be upgraded in accordance with the ODP</u>	Accept in part Amend as follows: <u>Prior to any development within the Business 2 Zone, or prior to the development of the 18 th residential allotment within the Living 1 Zone (whichever occurs first) shown in the ODP – Darfield East in at Appendix X, the intersection of Creyke Road and State Highway 73 shall be fully upgraded in accordance with the ODP.</u>
New Rule	Insert New Rule after 16.1.4 as follows: <u>Any principal building in that part of the Business 2 Zone located south of the State Highway and west of Creyke Road shown as Business 2 Outline Development Plan (Darfield East) at Appendix X if the following standards are met: All landscaping along the external perimeter of the Business 2 Zone as depicted on the Outline Development Plan at Appendix X, shall be landscaped to the following standards:</u> <u>1) A landscaping strip shall be established along the Business 2 Zone side of the common boundary to a depth of 10 metres.</u> <u>2) Landscape planting and an irrigation system shall be undertaken in accordance with the Outline Development Plan at Appendix X. Irrigation is to be provided for a minimum of 2 years following the establishment of the landscaping.</u> <u>3) All landscaping, once matured, shall meet the minimum heights depicted in the ODP East Darfield in Appendix X.</u> <u>4) The landscaping planted shall be maintained and if dead or diseased or damaged, shall be removed and replaced.</u> <u>5) No accessory buildings, fences, or structures shall be erected within the 10 metre landscape strip.</u> <u>6) Before any principal building is erected on any parcel of land subject to Rule 16.1.4, all of the landscape planting, irrigation system and fencing shown on the Outline Development Plan at Appendix X on that allotment shall be completed.</u>	Accept in Part Amend as follows: <u>Any principal building in that part of the Business 2 Zone located south of the State Highway and west of Creyke Road shown as Business 2 Outline Development Plan (Darfield East) at Appendix X if the following standards are met: All landscaping along the external perimeter of the Business 2 Zone as depicted on the Outline Development Plan at Appendix X, shall be landscaped to the following standards:</u> <u>1) A landscaping strip shall be established along the Business 2 Zone side of the common boundary to a depth of 10 metres.</u> <u>2) Landscape planting and an irrigation system shall be undertaken in accordance with the Outline Development Plan at Appendix X. Irrigation is to be provided for a minimum of 2 years following the establishment of the landscaping.</u> <u>3) All landscaping, once matured, shall meet the minimum heights depicted in the ODP East Darfield in Appendix X.</u> <u>4) The landscaping planted shall be maintained and if dead or diseased</u>

Provision	Proposed amendments by applicant	Officer recommendations
		or damaged, shall be removed and replaced. 5) No accessory buildings, fences, or structures shall be erected within the 10 metre landscape strip <u>unless such buildings, fences or structures are directly required for the purposes of noise attenuation or other such mitigation.</u> 6) Before any principal building is erected on any parcel of land subject to Rule 16.1.4, all of the landscape planting, irrigation system and fencing shown on the Outline Development Plan at Appendix X on that allotment shall be completed.
New Rule		Insert New Rule xx as follows: <u>Any dwelling in that part of the Living 1 Zone located south of the State Highway and west of Creyke Road shown as Living 1 Outline Development Plan (Darfield East) at Appendix X if the following standards are met: All landscaping along the external perimeter of the Living 1 Zone as depicted on the Outline Development Plan at Appendix X, shall be landscaped to the following standards:</u> 1) <u>A landscaping strip shall be established along the Living 1 Zone side of the common boundary to a depth of 10 metres.</u> 2) <u>Landscape planting and an irrigation system shall be undertaken in accordance with the Outline Development Plan at Appendix X. Irrigation is to be provided for a minimum of 2 years following the establishment of the landscaping.</u> 3) <u>All landscaping, once matured, shall meet the minimum heights depicted in the ODP East Darfield in Appendix X.</u> 4) <u>The landscaping planted shall be maintained and if dead or diseased</u>

Provision	Proposed amendments by applicant	Officer recommendations
		<u>or damaged, shall be removed and replaced.</u> 5) <u>No accessory buildings, fences, or structures shall be erected within the 10 metre landscape strip unless such buildings, fences or structures are directly required for the purposes of noise attenuation or other such mitigation.</u> 6) <u>Before any dwelling is erected on any parcel of land subject to Rule 16.1.4, all of the landscape planting, irrigation system and fencing shown on the Outline Development Plan at Appendix X on that allotment shall be completed.</u>
New Rule		Insert new Rule xx as follows: <u>In that part of the Living 1 Zone located at the corner of State Highway 73 and Creyke Road, Darfield, as depicted on the Outline Development Plan at Appendix X:</u> 1) <u>Any dwelling to be setback 30m from the internal boundary adjoining a Business zone.</u>
New Rule		Insert new Rule xx as follows: <u>In that part of the Living 1 zone located south of the access road as depicted on the Outline Development Plan at Appendix X:</u> 1) <u>Any dwelling to be setback 10m from the road boundary adjoining a Business zone.</u>
New Rule	Insert new rule after Rule 16.7.2.10 as follows: <u>In that part of the Business 2 Zone located at the corner of State Highway 73 and Creyke Roads, Darfield, as depicted on the Outline Development Plan at Appendix X:</u> 1) <u>Road boundaries: 10 metres</u> 2) <u>Internal boundaries adjoining a residential zone: 10 metres</u>	Accept
New Rule	Insert new rule after 22.13 as follows: <u>22.14 - Development within the Business 2 Zone East Darfield ODP</u>	Accept in part Amend as follows:

Provision	Proposed amendments by applicant	Officer recommendations
	<u>22.14.1 Prior to any development within the Business 2 Zone, or prior to the development of the 18 th residential allotment within the Living 1 Zone (whichever occurs first) located at the corner of State Highway 73 and Creyke Roads, Darfield, as depicted on the Outline Development Plan at Appendix X, the intersection of Creyke Road and State Highway 73 shall be upgraded in accordance with the ODP.</u>	<u>Prior to any development within the Business 2 Zone, or prior to the development of the 18 th residential allotment within the Living 1 Zone (whichever occurs first) located at the corner of State Highway 73 and Creyke Roads, Darfield, as depicted on the Outline Development Plan at Appendix X, the intersection of Creyke Road and State Highway 73 shall be <u>fully</u> upgraded in accordance with the ODP.</u>
New Rule		Insert New Rule xx as follows: <u>In relation to the Living 1 and Business 2 zones in the Outline Development Plan in Appendix XX:</u> <u>(a) Whether the subdivision of land or subsequent use of the land is likely to cause or exacerbate potential risk to people or damage to property; and</u> <u>(b) Any measures proposed to mitigate the effects of a potential natural hazard, including:</u> <u>i. Building platforms within each allotment, of sufficient size to accommodate a dwelling and associated curtilage; and</u> <u>ii. The filling (with inert hardfill) of any low lying area; and</u> <u>iii. proposed methods and locations for flood offset areas; and</u> <u>(c) How adequate and appropriate any such mitigation measures may be, and the mechanisms to secure any such measures.</u>

10. Conclusions and Recommendation

- 186) As set out in Section 6, the statutory matters that must be considered in relation to a plan change require the assessment of sections 31, 32, 74 and 75, and regard must be had to the overall purpose and principles set out in Part 2 of the Act.

Functions of territorial authorities

- 187) Council's functions under s31 include the following:

“(a) the establishment, implementation and review of objectives, policies and methods to achieve integrated management of the effects of the use, development or protection of land and associated natural and physical resources of the district”

(aa) the establishment, implementation, and review of objectives, policies, and methods to ensure that there is sufficient development capacity in respect of housing and business land to meet the expected demands of the district:”

188) The assessment and conclusions of this report establish that PC61 incorporates a number of appropriate methods to ensure any future land uses are appropriate. While I consider that PC61 will result in a number of positive social, economic and environmental outcomes, there are potentially significant adverse effects concerning transport efficiency, safety and connectivity that still need to be addressed. I also consider that amendments are required to avoid reverse sensitivity effects within the site boundary.

189) The matters proposed in PC61 are all matters that fall within the ambit of the content of a district plan under s75, and I consider that the application, and this report, have had appropriate regard to most, but not all the relevant matters set out in s74 and 75. I consider that further assessment and amendments are necessary, as detailed in my recommendations below, to mitigate the potential for significant adverse effects.

Consideration of alternatives, benefits and costs

190) The Council has a duty under s32 of the Act to consider alternatives, benefits and costs of the proposed change. The s32 analysis is a process whereby initial investigations, followed by the consideration of submissions at a hearing, all contribute to Council’s analysis of the costs and benefits of the amended provisions in its final decision making.

191) In summary, s32 requires the consideration and evaluation of the extent to which the proposal is the most appropriate way to achieve the purpose of the Act, having regard to the efficiency and effectiveness of all practicable options.

192) Appendix 13 of the application contains an assessment of the alternatives, benefits and costs of the proposed plan change. I concur with the applicant that the other practical options for achieving the purpose of the proposal include the following:

- a) Maintaining the status quo i.e. maintain the current zoning and not provide for intensification of the area
- b) Rezoning the area for residential use only.
- c) Rezone the site partially for residential use and partially for business use (the applicant’s preferred option).
- d) Seeking intensification of the site through a subdivision consent.

193) Having assessed the evaluation contained in the plan change request and the findings of the various peer reviews and evidence, I am satisfied that the proposed plan change is the best approach when considered against s32 of the Act.

Part 2 Matters

194) The Act requires the Council to manage the use and development of physical resources in a way, or at a rate, that will enable to the community to provide for its social, economic and cultural wellbeing while avoiding, remedying or mitigating any adverse effects of activities on the environment (s5).

195) There are no matters of national importance listed in s6 that are considered to be of specific relevance to PC61. The other matters in s7 to which Council must have regard to include the efficient use and development of natural and physical resources, the maintenance and enhancement of amenity values and the maintenance and enhancement of the quality of the environment.

196) I consider that the purpose of the Act is reflected in the current objectives and policies of the Plan and that these have already been through the statutory tests and are unchallenged. PC61 does not seek to make any

changes to the settled objectives and policies of the Plan, rather it seeks to change the Plan's zoning pattern and amend and insert rules relevant to the context of the site. I consider that this better achieve the Plan's objectives, and thereby Part 2, than the operative zoning, resulting in the efficient use and development of natural and physical resources, whilst maintaining the amenity value of the area.

- 197) There are no known sites of significance or specific cultural values affecting the development of the area and Iwi have been consulted as part of the plan change process. The Treaty of Waitangi has been considered in preparing and assessing PC61.
- 198) However for reasons stated above, it is my opinion, taking into account advice I have received, that the Plan Change has the potential to give rise to significant adverse effects on transport connectivity, safety and efficiency.
- 199) It is my opinion that PC61 will not achieve the purposes of the Act without further assessment and amendments to address this matter.

Conclusion

- 200) The assessment and conclusions of this report establish that PC61, to some extent, better achieves the Plans' objectives than the existing provisions however is not yet consistent with the provisions regarding urban growth management and does not yet give effect to the objectives and policies of higher order documents in place at the time that this report was written.
- 201) The plan change proposes to rezone land from rural to residential and business. I consider that this is a more efficient use of land that is already identified for rural use and is adjacent to the existing Darfield township boundary, resulting in appropriate concentric development. Servicing of PC61 is technically feasible through on-site management of stormwater and wastewater and connection to the Council's reticulated water network, potentially as a restricted supply. However it is not clear that the proposal will not result in any unacceptable effects on the safe and efficient functioning of the road network which is inconsistent with objectives and policies in the Canterbury Regional Policy Statement and Operative Selwyn District Plan. Additionally, amendments are recommended to the ODP and rule suite to avoid reverse sensitivity effects within the site boundary and to assess and mitigate the effects of flooding.

Recommendations

- 202) It is therefore my recommendation that Plan Change 61 be **declined** unless the applicant is able to provide:
- a) a demonstration that safe and convenient access to the site from Darfield township by walking and cycling in a manner that avoids adverse effects on the State Highway will be in place prior to development.
 - b) a demonstration that the application will not impact the safe operation of the State Highway network, and
 - c) amendments to the proposed ODP and rule suite as set out in the officer recommendations above.
- 203) It is recommended that submissions be accepted and rejected, as set out in Appendix 1.

Appendix 1 – Summary of Submissions and Officer Recommendations

Sub No.	Submitter	Submission Point	Support/ Oppose	Submission topic	Officer Recommendation/Comments
PC61-1	P&C Poultry	1	Oppose	Reverse sensitivity.	Reject (refer 7a)
PC61-2	Canterbury Regional Council	1	Neither Support/Oppose	Development capacity	Reject (refer 7b)
		2	Neither Support/Oppose	Highly productive land	Reject (refer 7g)
		3	Neither Support/Oppose	Wastewater servicing	Reject (refer 7d)
		4	Neither Support/Oppose	Natural hazards-flooding	Reject (refer 7e)
		5	Neither Support/Oppose	Contamination	Reject (refer 7f)
PC61-3	Ascot Park Ltd	1	Oppose	General	Accept in Part (refer 7a/c)
		2	Oppose	Land Availability	Reject (refer 7b)
		3	Oppose	Buffer	Reject (refer 7h)
		4	Oppose	Traffic	Accept in Part (refer 7c)
PC61-4	Canterbury District Health Board	1	Oppose	Reticulation	Reject (refer 7d)
PC61-5	Darfield Seed Cleaning	1	Oppose	Efficient use of land	Reject (refer 7b)
		2	Oppose	Development capacity	Reject

Sub No.	Submitter	Submission Point	Support/ Oppose	Submission topic	Officer Recommendation/Comments
					(refer 7b)
		3	Oppose	Traffic	Accept in Part (refer 7c)
		4	Oppose	Reverse sensitivity	Reject (refer 7b)
		5	Oppose	Lack of consultation	Reject
PC61-6	Waka Kotahi (New Zealand Transport Agency)	1	Oppose in part	Intersection safety and efficiency	Accept in Part (refer 7c)
		2	Oppose in part	Multi modal transport options	Accept in Part (refer 7c)
		3	Neither support/oppose	Impact on Greater Christchurch	Reject (refer 7b)
PC61-7	Canterbury Clay Bricks	1	Support (Changed from Oppose)	Reverse sensitivity	Reject (refer 7a)
		2	Support (Changed from Oppose)	Range of activities possible in Business 2	Reject (refer 7a)
		3	Support (Changed from Oppose)	Air assessment	Reject (refer 7a)
		4	<i>Oppose</i>	<i>Need for residential land</i>	Withdrawn
		5	<i>Oppose</i>	<i>Traffic effects</i>	Withdrawn
		6	<i>Oppose</i>	<i>Consultation</i>	Withdrawn
PC61-8	Nancy and Peter Boyes	1	<i>Oppose</i>	<i>Development capacity</i>	Withdrawn
		2	<i>Oppose</i>	<i>Traffic</i>	Withdrawn
		3	<i>Oppose</i>	<i>New business zone</i>	Withdrawn

Appendix 2 – Evidence of Dave Smith, Abley Consulting (Transportation)

Transport Comments on Plan Change 61 to the Selwyn District Plan

Prepared for: Jon Trewin, Selwyn District Council

Job Number: SDC-J039

Revision: Version 3a

Issue Date: 22 March 2021

Prepared by: Dave Smith, Technical Director

Introduction

1. My name is David John Robert Smith.
2. I hold a Bachelor of Technology (with Honours) in Industrial Operations Research and Master of Philosophy in Operations Research from Massey University. I am a Chartered Member of the Institute of Logistics and Transport (CMILT), a member of Engineering New Zealand (MENZ) and a member of the NZ Modelling User Group sub-group of ENZ. I have been appointed to the NZ Transport Agency Independent Professional Advisors panel for Transportation Modelling. I am also certified as a Hearings Commissioner having complete the Making Good Decisions course in 2019.
3. I hold the position of Technical Director of Transportation Planning at Abley. I have been in this position since 2018 and have been at Abley for nine years. I lead a range of development planning and transportation planning projects for both public and private sector clients.
4. My previous work experience includes 21 years of transportation planning and engineering experience. I have managed and led numerous projects related to transportation business cases, transportation research and Resource Management Act (RMA) related matters for public and private sector clients. As an expert witness I was engaged by the Environmental Protection Authority (EPA) to provide transportation advice and evidence directly to the Board of Inquiry presiding over the Basin Bridge hearing. I have also recently represented Foodstuffs South Island Limited, Auckland Council, Selwyn District Council, Queenstown-Lakes District Council, Ports of Auckland and Fonterra as an expert witness.
5. My role in relation to Private Plan Change 61 (PPC61) to rezone approximately 30 hectares located east of Darfield from Rural Outer Plains to a mix of Business 2 (17ha) and Living 1 (7ha) zone is as an advisor to Selwyn District Council on traffic and transportation matters.
6. In my assessment I have reviewed the following documents:
 - a. From the Application for Private Plan Change, Section 1 SO 1227, Darfield by Baseline Group dated 4 August 2019:

- i. Chapter 8: Description of Environmental Effects;
 - ii. Appendix 7: Assessment of CRPS Objectives and Policies;
 - iii. **Appendix 8: Assessment of DP Objectives and Policies; and,**
 - iv. Appendix 9: Integrated Transport Assessment (ITA) by Carriageway Consulting Ltd, dated 6 February 2019.
 - b. Request for further information from Selwyn District Council (SDC), dated 6 September 2019;
 - c. Request for further information response by Baseline Group, dated 16 December 2019;
 - d. Submissions from the following parties:
 - i. P & C Poultry, dated 5 July 2020;
 - ii. Canterbury Regional Council (Environment Canterbury), dated 27 July 2020;
 - iii. Ascot Park Limited, dated 28 July 2020;
 - iv. Canterbury District Health Board, dated 28 July 2020;
 - v. Darfield Seed Cleaning Co Ltd, dated 29 July 2020;
 - vi. Waka Kotahi NZ Transport Agency, dated 29 July 2020;
 - vii. W.D. Boyes & Sons Ltd trading as Canterbury Clay Bricks, dated 29 July 2020; and,
 - viii. Nancy Georgina Boyes and Peter Donald Boyes, dated 29 July 2020.
 - e. Amended ODP received by Selwyn District Council, dated 11 February 2021; and
 - f. Performance of SH73 / Horndon Street Intersection, Carriageway Consulting Technical Note, dated 16 February 2021.
 - g. Concept intersection design for SH73 / Creyke Road Intersection upgrade, dated 18 February 2021.
 - h. Performance of SH73 / Creyke Road Intersection, Carriageway Consulting Technical Note, dated 9 March 2021.
7. I have undertaken a site visit on 9 February 2021 in relation to this application and observed the local traffic environment. I have also attended a meeting of transport experts to discuss areas of disagreement, including Mr Carr representing the applicant and Mr Pearson and Mr Long representing Waka Kotahi on the 11th March 2021.
8. I have prepared evidence in relationship to:
- a. Assessment of the Application against the relevant RMA matters;
 - b. Matters raised through submissions; and,
 - c. Rooding upgrades proposed as mitigation in the application.

Relevant RMA matters and District Plan provisions

9. I have undertaken an assessment of PPC61 against the relevant transport objectives and policies of the Selwyn District Plan (SDP) and the Canterbury Regional Policy Statement (CRPS). I have identified three areas where the application is inconsistent with respect to these planning policy documents which are addressed in this section of evidence as follows:
- a. Lack of facilities to accommodate walking and cycling;
 - b. Consideration of cumulative effects of development; and
 - c. Assessment of the operation of the State Highway.

Walking and cycling facilities

10. The lack of walking and cycling facilities is inconsistent with SDP Objective B2.1.3 and Policy B.2.1.5, and are inconsistent with CRPS Objective 5.2.3 and Policy 5.3.8.
11. Paragraph 7.3.1 of the ITA states that *“any increase in walking and cycling...can be accommodated within the existing transportation network”*. I do not agree with the ITA on this matter as the application does not provide walking or cycling connectivity to existing walking and cycling infrastructure.
12. The Outline Development Plan (ODP) included in Figure 4 of the ITA was superceded by an amended ODP attached to the RFI response dated 16 December 2019. This shows that the primary access to the site is from Creyke Road. Creyke Road is a minor rural road that was until recently unsealed. It is 6 metres wide and does not have shoulders or a footpath. Creyke Road intersects with State Highway 73 (SH73) to the north of the site access. SH73 is a high-speed road with high flows and a high proportion of heavy vehicles. It has sealed shoulders but does not have a footpath. Both SH73 and Creyke Road have a posted speed limit of 100 kph. The ODP includes potential future connections to the west and south of the site linking to currently undeveloped land.
13. I have also reviewed the amended ODP received by Selwyn District Council on 11 February 2021 and note that the footprint of the business activity is reduced without a reduction in residential capacity which remains at 35 lots. This means that the level of traffic activity and any associated effects are likely to be slightly less than assessed in the ITA. I also note that the access arrangements and connectivity through the site compared with the amended ODP dated 16 December 2019 is unchanged.
14. In the event that Creyke Road is the only means of entering and exiting the site, the only route between the ODP and Darfield town centre will be via Creyke Road and SH73. For pedestrians, this means walking on the grass berms and shoulders over approximately 3 km. For cyclists, this trip would involve cycling on shoulders, where sufficiently wide, and the edge of the road carriageway otherwise. In my view these corridors in their current form are not suitable for walking and cycling without dedicated facilities being in place, and the current high vehicle speeds would be a deterrent for walking and cycling to and from the site.
15. I have sourced crash records along this corridor for the 10 years from 2011 to 2020 from Waka Kotahi's Crash Analysis System (CAS) (refer Attachment A) and observe that there were four single-vehicle run-off-road crashes (including one serious injury and one minor injury) along SH73 between Creyke Road and the 50 km/h speed limit boundary entering Darfield. These crashes resulted in vehicles entering the berm and shoulder area where pedestrians and cyclists could potentially be travelling. The consequences of a vehicle striking a pedestrian or cyclist on this corridor would in my view be severe. I consider that the development of the site in the absence of local road connections to Darfield has the potential to increase the number of people walking and cycling along SH73 and would exacerbate this safety risk.
16. The amended ODP shows links to the south and west of the site to currently undeveloped land. The establishment of these links is supported for providing safer and more direct walking and cycling connections to Darfield township, and is discussed in more detail in paragraphs 31-37 of this statement of evidence.

Cumulative effects:

17. In my view, without due consideration of cumulative effects the assessment of the impact on the transport network and its users has the potential to be inconsistent with SDP Objectives B2.1.1 and B2.1.2, and Policies B2.1.2 and B2.1.3, and CRPS Objectives 5.2.2 and 5.2.3, and Policies 5.3.2, 5.3.7 and 5.3.8.
18. Cumulative effects from approved subdivisions have not been considered in the ITA when evaluating the impact of the PPC on the transport network. I understand from Mr Trewin that five subdivision consents relating to approved PC24 and PC48, amounting to 224 residential lots have been approved in the nearby area. To address potential cumulative effects, I would expect the ITA to account for increases in traffic flows in the next ten years including these approved subdivisions in addition to background traffic growth. This is consistent with the NZ Transport Agency (now Waka Kotahi) ITA guidance in Research Report 422 which stipulates for Plan Change assessments *“...if the plan change or variation has a limited area of influence, then a minimum time of 10 years may be appropriate”*.
19. Subsequent to the ITA, Mr Carr has produced a technical note 'Performance of SH73 / Creyke Road Intersection' dated 9 March 2021, to address the cumulative effects of development at the intersection. Mr Carr's assessment considers a baseline increase in traffic of 36% in the peak hour on all roads which is consistent with his assessment from the ITA, the likely development associated with the full development of Plan Change 24 and 48 area and traffic associated with Plan Change 61.

20. Mr Carr concludes that “...we consider that the capacity of the intersection is not a concern, as even when existing (approved) plan changes are taken into account, coupled with the traffic generation of the proposed plan change, queues and delays remain acceptable. On this basis, it is considered that a priority intersection has sufficient capacity for the expected traffic flows.” I agree with Mr Carr’s findings and consider that the cumulative effects of development have been assessed appropriately.

Safe and efficient operation of the state highway network

21. In my view, a comprehensive assessment of the impact of the development in terms of both the safety and efficiency of SH73 is required to confirm that the application is consistent with SDP Objectives B2.1.1 and B2.1.2, and Policies B2.1.2 and B2.1.3, and CRPS Objectives 5.2.2 and 5.2.3, and Policies 5.3.2, 5.3.7 and 5.3.8.
22. In respect to the state highway network, the ITA has not adequately assessed the future performance of SH73. Based on the figures presented in the ITA, I calculate that the development will result in a 23% increase in SH73 traffic in addition to the assumed baseline increase. With an increase in traffic of this magnitude, I consider it likely that there is potential for a deterioration in the performance of other nearby intersections including Horndon Road on SH73.
23. In response to my concerns regarding the operation of the Horndon Road intersection, Mr Carr has prepared a Technical Note addressing the performance of the SH73 / Horndon Street intersection which I have subsequently reviewed. This demonstrates that the intersection performs well with good Level of Service and negligible queue lengths. I conclude from Mr Carr’s assessment that there will be no adverse effects associated with the Plan Change with regard to vehicular delays or queuing at SH73 / Horndon Street. I further conclude that the assessment of cumulative effects discussed in paragraphs 19 and 20 demonstrates no adverse effects associated with the Plan Change with regard to vehicular delays or queuing at SH73 / Creyke Road intersection.
24. The assessment should extend to consideration of safety impacts along SH73 between Creyke Road and the existing urban limits to the east of Matthias Street. The CAS analysis of this corridor that I have completed indicates four run-off road crashes on this corridor as noted in paragraph 15. This indicates that there may be an underlying safety issue on the corridor which could be exacerbated by an increase in activity as a result of the application. I also note that this section of SH73 is currently a high speed environment and a reduction in operating speed may be instrumental in improving the road safety performance of this corridor.

Matters raised in submissions

25. Comments are provided on the following submissions relating to transportation aspects. These comments are grouped into topics to assist in providing a comprehensive response. The specific submissions are those submitted by *Ascot Park Ltd* (#3), *Darfield Seed Cleaning Co Ltd* (#5), *Waka Kotahi NZ Transport Agency* (#6), *WD Boyes & Sons Ltd* (#7), and *Boyes* (#8).

Walking and cycling

26. The submission from Waka Kotahi raises concerns that the Plan Change does not provide options for multi-modal transport. Further concerns are raised about the safety of pedestrians and cyclists if they need to travel along SH73 between the ODP site and Darfield town centre. I agree with these points.
27. The Applicant has not considered the proposed Darfield to Kirwee cycleway which appears in SDC’s Walking and Cycling Strategy Action Plan and is in SDC’s draft 2021-31 LTP. The location of the ODP would suggest an opportunity to connect from the application site to the future cycleway, however there is no design available for this future cycleway and I would expect it would most likely be situated on the grass berm on the north side of SH73 adjacent to the railway reserve. I address provision for walking and cycling modes further in the following paragraphs under the Connectivity heading.

Connectivity

28. Submitters raise concerns that the Outline Development Plan (ODP) is reliant on infrastructure on adjacent sites to provide adequate connectivity to the rest of Darfield. The layout includes connections to sites to the west and south.
29. The site to the south (Ascot Park) is zoned as a mix of L1 and L2A (Deferred) and had subdivision consent approved on 15 March 2017. To date, the sections have been formed only in Stage 1 of a total seven approved subdivision stages. No new internal transport infrastructure is currently in place. The ODP proposes to connect to an internal local road within Stage 7 of the approved plan shown in Figure 1.

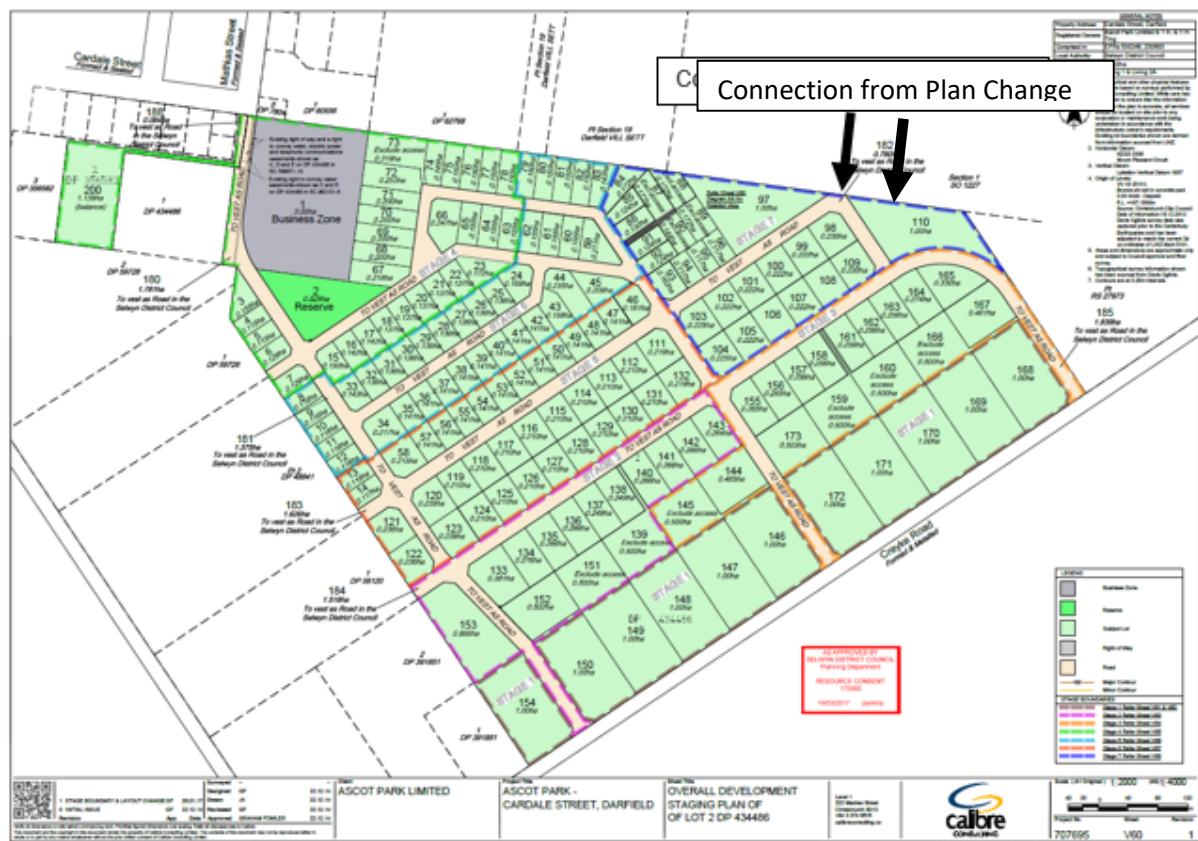


Figure 1 Approved Plan for Ascot Park subdivision

30. The approved subdivision plan for Ascot Park does not explicitly account for a connection from the ODP area. The connection would be to a local road that is primarily intended for property access and not through traffic. The routing through Ascot Park for ODP traffic to reach Darfield town centre is somewhat circuitous, and is unlikely to be substantial in terms of improved vehicular connectivity to the wider network. However I support a walking and cycling link in this vicinity to encourage uptake of these modes and provide a safer, lower speed alternative to walking and cycling along SH73.
31. The site to the west is zoned as L2A (Deferred) and does not have subdivision consent. This site is included in the Proposed Selwyn District Plan (refer to <https://eplan.selwyn.govt.nz/review/#Rules/0/474/1/0/0>) as Darfield Development Area 5 (DEV-DA5) shown in Figure 2. The ODP has proposed a connection into this Development Area. I understand the potential for a through road to be formed to Mathias Street has been previously investigated by SDC, but that this would require going through existing developed business and or residential properties. I support including this connection to provide safe and direct walking and cycling connectivity to Darfield township from the application site. I note that this would be a more direct connection from the Plan Change site to Darfield than the proposed connection through Ascot Park.

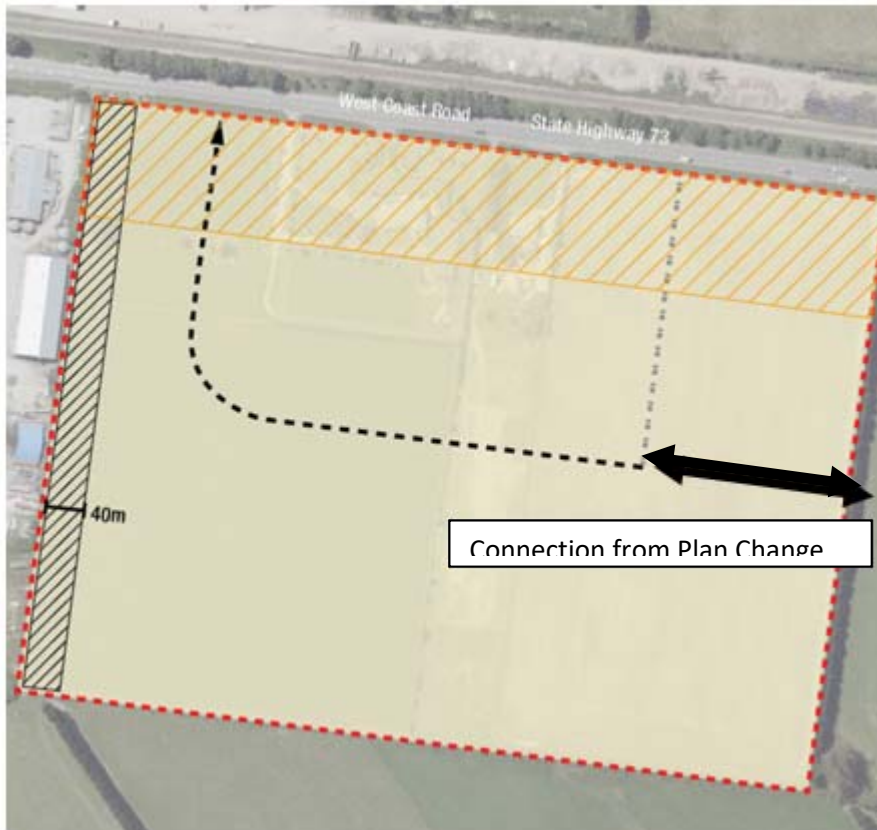


Figure 2 ODP for Darfield Development Area 5

32. The amended ODP layout includes no direct connection to SH73, with access provided via Creyke Road. Until a local road connection to the rest of Darfield is formed through the adjacent residential zoned land, pedestrians and cyclists desiring to travel to the town centre will be required to travel by a circuitous route that takes them out to Creyke Road and then along SH73. As previously stated, SH73 is a high speed, high volume road with high heavy vehicle movements and no pedestrian or cyclist infrastructure until Matthias Street, approximately 1.7 kilometres west of Creyke Road. I have measured the current footpath provision terminates at the vicinity of Matthias Street approximately 570 metres from the northwest corner of the site and Matthias Street.
33. The applicant notes in their RFI response to SDC that Waka Kotahi have indicated they would oppose access to SH73 from the north-western corner of the site. I agree that provision of a walking and cycling connection from the Plan Change site directly to SH73 is not sufficient to address connectivity for pedestrians and cyclists with the additional 570 metre connection to existing facilities in Matthias Street.
34. More direct pedestrian and cyclist access to Darfield would incentivise use of these modes and reduce the risk to cyclists and pedestrians using high speed corridors with little or no facilities. The timing for the development of Ascot Park and the Darfield Development Area 5 are uncertain, however the provision of a direct and safe walking and cycling link to Darfield town centre has the potential to address adverse safety effects associated with pedestrians and cyclists using SH73, and to meet Regional and Local transport objectives and policies.
35. The primary access to the business zone is located as close as possible to the primary site access on Creyke Road. To enable emergency access and egress, a second access has been included that leads directly into the proposed residential area. This access has been labelled as emergency access only on the ODP accompanying the RFI response but is not specified on the amended ODP received by Council on 10 February 2021. Clarity is sought with respect to the intended use of this link.
36. The connection between the cul-de-sac and residential ODP link can be designed and/or restricted to ensure heavy vehicles associated with the business zone are not travelling through the residential streets. However, there will be no way of preventing smaller commercial vehicles from using it as a standard site access. As it is plausible that a connection between the ODP and the township is achieved through Development Area 5, the location of the proposed B2 zone emergency access could encourage commercial traffic to travel westwards to access the state highway network, thus routing this traffic through residentially zoned areas both within this ODP and Development Area 5.

37. I have undertaken an assessment of the likely traffic volumes and impact of light traffic using the connection between the application site and Development Area 5 should this be available to general traffic. Table 4 from the ITA specifies a total of 334 and 376 two-way vehicle movements in the morning and evening peak hour respectively, and a total of 2,314 two-way traffic movements per day. Paragraph 6.2.2 of the ITA estimates that 45% of Plan Change traffic will be distributed to the west which corresponds to up to 150 and 170 two-way vehicle movements in the morning and evening peak hour respectively, and a total of 1,040 two-way traffic movements per day potentially using the future link to the east. These represent likely maximum volumes of traffic which have the potential to use a future connection through Development Area 5 to access the town centre. These volumes are well within the capacity of a residential local road and subject to suitable design features restricting heavy vehicles associated with the business activity from accessing the residential streets at the western end of the Plan Change site. I do not anticipate any adverse effects in that regard.

State Highway 73

38. Submitters are concerned about increases in traffic on SH73 as a result of the ODP. Based on the assumed traffic levels in the ITA it is stated that SH73 would operate at Level of Service (LOS) C in the morning peak and LOS D in the evening peak. The cumulative effects assessment prepared by Mr Carr for the SH73 / Creyke Road intersection estimates that PC24 and PC48 would likely result in an additional 100 vehicles in the morning peak hour and 40 vehicles per hour in the evening peak hour to the west of Creyke Road. I can confirm that with this additional PC24 and PC48 traffic, that SH73 would still be comfortably operating within its capacity and is unlikely to result in a step change in Level of Service on this corridor.
39. Submitters are concerned about the operation of the intersection of SH73 and Creyke Road. The results of Mr Carr's assessment of cumulative effects demonstrates that all vehicle movements operate at LOS D or better in peak periods with maximum vehicle queues not exceeding two and three vehicles in the morning and evening peak hours respectively. I consider that this demonstrates that the intersection will operate well with the inclusion of likely future traffic from PC24, PC48 and PC61.
40. The Applicant proposes that the SH73 / Creyke Road intersection would be improved in stages based on defined 'triggers' in the ITA. Following initial improvement of the intersection, a right-turn lane would follow at 10% development and a left-turn lane at 85% development. The ITA (paragraph 7.2.5) states *"these thresholds are influenced by whether any access to the plan change area is available from the west, and the extent of any development within the ODP area towards the south. At present, there is no such connection able to be formed, nor is any development proposed towards the south."* In the event of there being a connection to the west or development in the ODP areas to the south, it is unclear if and how the 'trigger' rules would need to be adjusted. Piecemeal upgrading of the intersection may have a greater impact on SH73 operation than if the works were completed all at once and there would be corresponding additional costs to the applicant and disruption to State Highway traffic.
41. Submitters have raised concerns about the safe and efficient operation of the SH73 and Horndon Street intersection, located approximately 500 metres to the west of Creyke Road. Of particular concern are delays to vehicles exiting Horndon Street onto SH73. I have reviewed Mr Carr's assessment of the performance of this intersection in paragraph 23 of this statement of evidence and concluded that this demonstrates that there are no adverse effects with respect to vehicular delay or queuing.
42. Submitters have also suggested that the speed limit on SH73 may need to be reviewed if the ODP is approved. The ITA does not consider any potential change to the 100 km/h speed limit on SH73 as it is not an RMA matter. I agree there is merit in reviewing (reducing) speed limits as this corridor becomes more urbanised. A solution could potentially include the introduction of a buffer speed zone of 80 km/h as opposed to the current immediate change from 50 to 100 immediately east of Matthias Street. A change in speed limit is also in my view likely to result in improved safety outcomes on the corridor and make it easier for vehicles accessing SH73 to find gaps in the traffic stream with a consequent improvement in intersection operation.
43. I have referenced Waka Kotahi's Speed Management Framework and MegaMaps tool to understand the appropriateness of reducing the speed along SH73. The MegaMaps tool is used by Waka Kotahi and other Road Controlling Authorities to provide an assessment of the Safe and Appropriate Speed (SaAS) of each road link on New Zealand's road network based on road safety risk in alignment with the Speed Management Framework. The SaAS is based on establishing the speed which is appropriate for each corridor based on the road function, design, safety and use of the corridor. Figure 3 shows that the SaAS along SH73 either side of Creyke Road through to the urban boundary and along Creyke Road is 80 kph, which is lower than the current 100 kph posted speed.

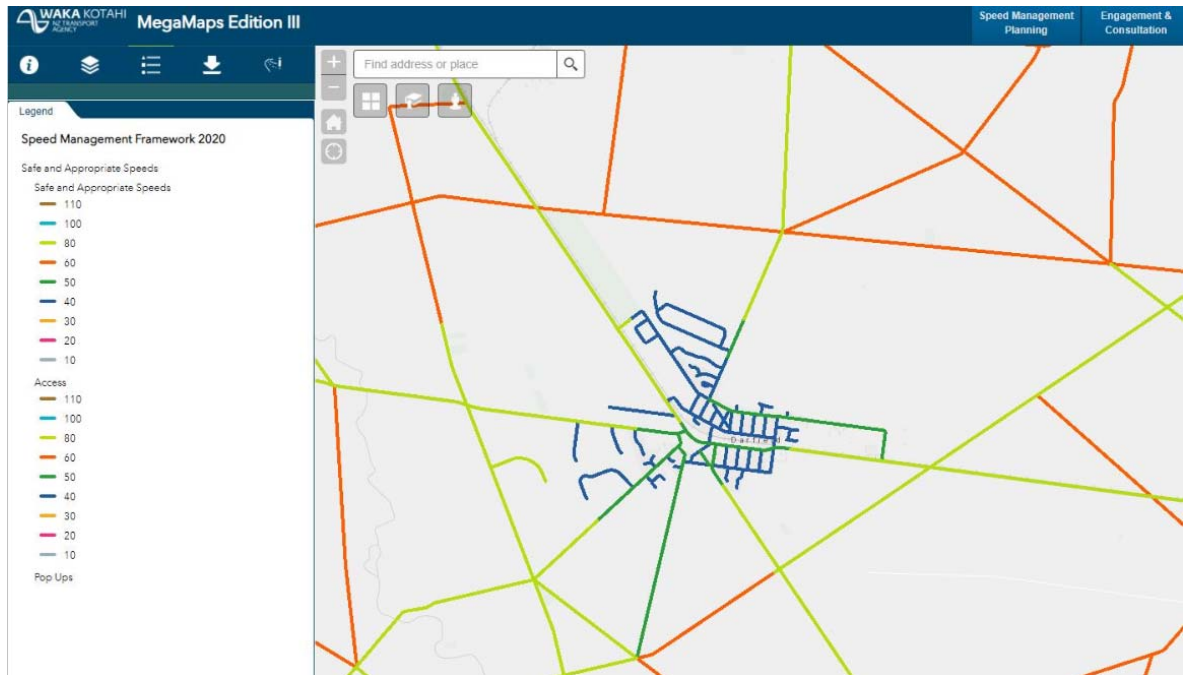


Figure 3 Safe and Appropriate Speed from MegaMaps

44. I have also identified from the MegaMaps tool that the SH73 corridor is classified as being in the top 10% of Death and Serious Injury (DSi) saving network sections as shown in Figure 4. This means that there are high safety-related benefits anticipated to be achievable through reducing the speed limit to align with the SaAS or from engineering up the corridor through safety improvements. In terms of process, I understand that further investigation would be required to confirm the SaAS is correct and this would be undertaken as part of a technical assessment known as a speed limit review. The Government Policy Statement 2018/19 – 2027/28 includes a target to address the top 10% DSi network sections, which indicates central government intent that a speed management review of this corridor may be planned or may be imminent.
45. I agree with the applicant that the setting of speed limits is not an RMA matter, however as the area becomes increasingly urbanised this issue becomes more pertinent. I encourage the relevant road controlling authorities to undertake speed limit reviews of SH73 and Creyke Road, and encourage discussions between the Applicant and road controlling authorities in this regard. I further note that residential development is already occurring fronting onto Creyke Road so in my view this would be an opportune time to review the appropriateness of the current speed limit.

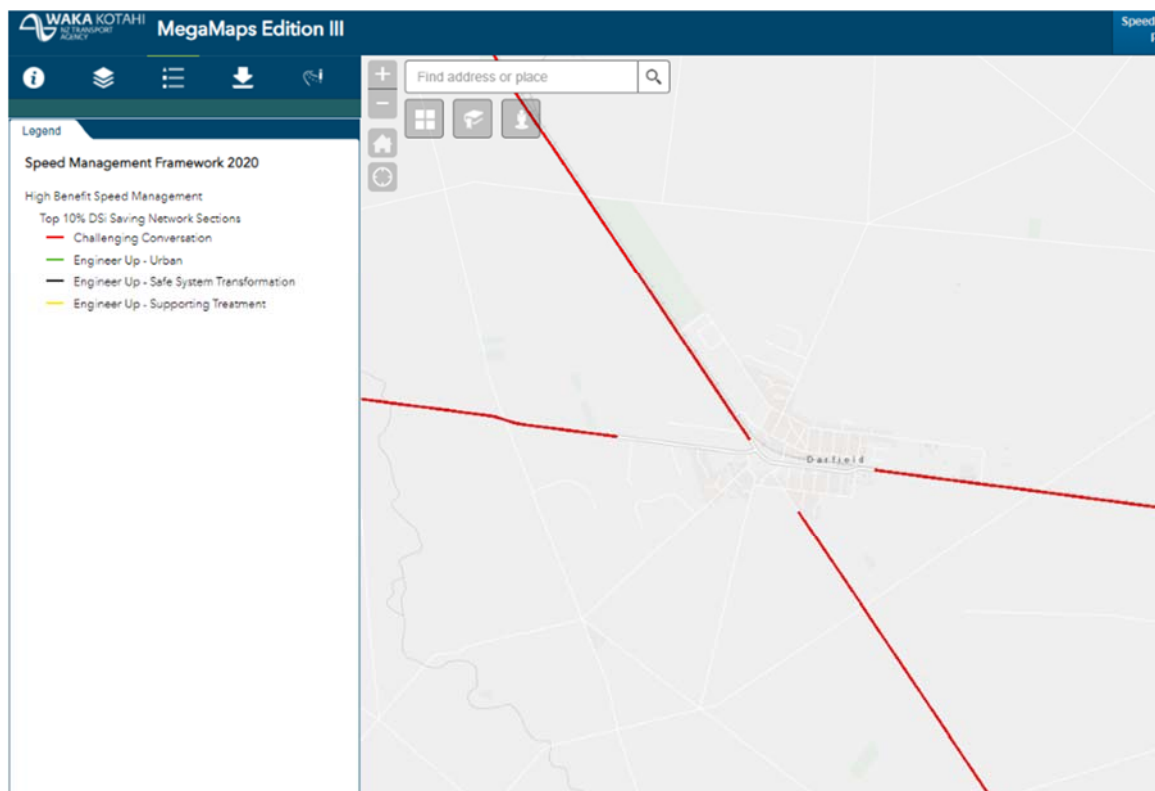


Figure 4 Top 10% DSI Saving Network Sections

Wider network transport effects

46. Waka Kotahi states in their submission that the PPC should be considered against the updated Greater Christchurch Urban Development Strategy (UDS) provisions. I defer to Mr Trewin on this matter. However, I note that although Darfield is outside the subject area of the UDS, the proposal may affect residential demand within the UDS boundary. Using Statistics NZ 2018 Census journey to work data (see Attachment B), I have calculated that approximately 36% of Darfield residents travel to the UDS area for work while approximately 10% of employees in Darfield originate from the UDS area. This demonstrates that there is some interdependence between Darfield and the UDS area.

Roading upgrades

47. The Applicant has proposed improvements at the SH73 / Creyke Road intersection to enable the southern Creyke Road approach to meet SH73 at a right angle rather than the present acute angle. The Applicant also proposes auxiliary right-turn and left-turn lanes to be added per agreed development triggers. I agree with the need to improve this intersection before development can go ahead. However, I would recommend that the full improvements be undertaken as a single stage of works to minimise the effect on the state highway network.
48. The Applicant calls for Creyke Road to be classified as a Collector Road under the SDP road hierarchy. The prime role of a Collector Road as defined in the SDP is "to distribute and collect local traffic within and between neighbourhood areas." I agree that Creyke Road will meet this definition in principle but note that the road will require upgrading to meet District Plan requirements for this to occur. Creyke Road forms a boundary between Darfield Township and rural Selwyn District, and the requirements differ between the Township Volume (Part E Appendix 13, E13.3) and the Rural Volume (Part E Appendix 10, E10.5) of the SDP.

Traffic expert meeting

49. I attended a meeting of transport experts to discuss areas of disagreement, including Mr Carr representing the applicant and Mr Pearson and Mr Long representing Waka Kotahi on the 11th March 2021 and prepared the minutes recorded at this meeting dated 16th March 2021, I can confirm that the matters addressed in my evidence take into consideration the discussions and points of agreement from that meeting as recorded in the minutes. I would however like to comment further on two matters:
- Mr Carr proposed an alternative trigger rule relating to the SH73 / Creyke Road intersection upgrade. This proposed that the upgrade works would be implemented as a single stage, and that residential

development could occur prior to the upgrade but no industrial development would be undertaken. I support this proposal in principle, however I retain safety concerns along SH73 due to the high speed environment and lack of facilities for pedestrians and cyclists.

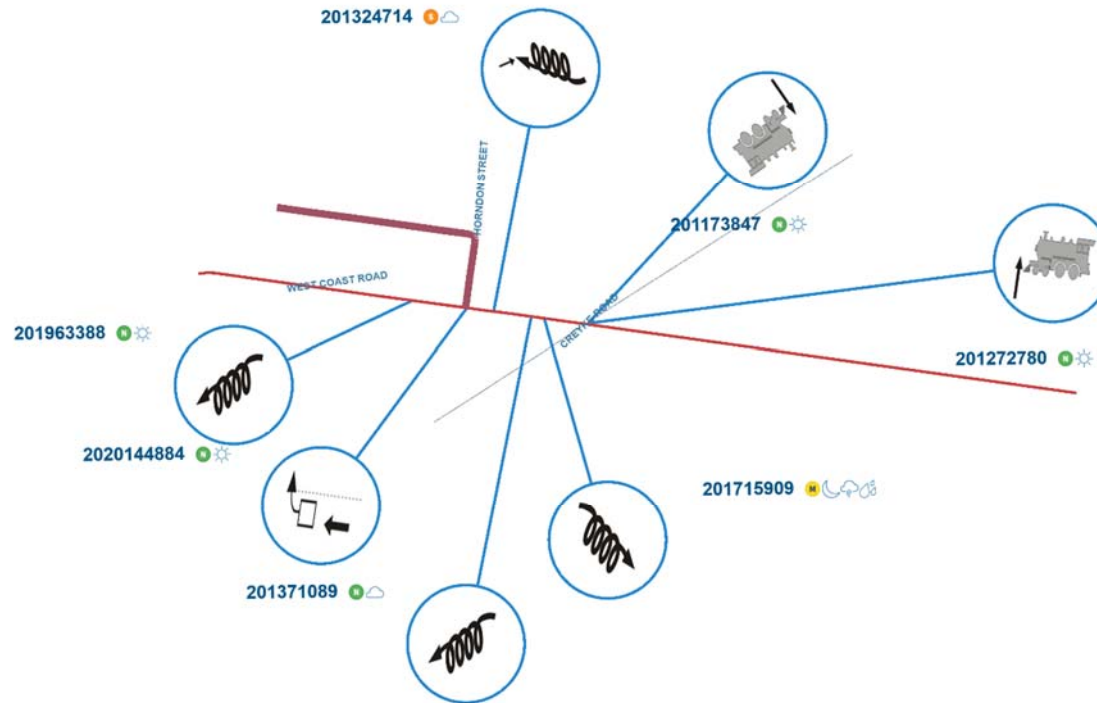
- b. The experts discussed the current 100 kph posted speed and merits of reducing the speed environment along SH73 and Creyke Road at length. I consider that reducing the speed limit would provide for a safer environment for all road users however the speed limit setting process can be lengthy. I encourage any opportunities for the Applicant and Road Controlling Authorities to work together towards a speed limit reduction on both SH73 and Creyke Road and/or implement a Speed Limit Zone at the Creyke Road intersection.

Conclusions

- 50. I have assessed the application against the policies and objectives of the SDP and CRPS, reviewed the assessment of effects and considered submissions on the Plan Change, and have concluded that:
 - a. The application is inconsistent with objectives and policies targeting multi-modal transport. In the absence of links to undeveloped areas to the south and west being available prior to development, the ODP provides for poor pedestrian and cyclist access to Darfield town centre.
 - b. Work undertaken subsequent to the ITA provides an appropriate assessment of the operation of SH73 including the Horndon Road intersection and cumulative effects at the Creyke Road intersection.
 - c. The application does not adequately demonstrate the safe operation of the state highway network.
 - d. Design measures and/or a condition is recommended to restrict heavy vehicles associated with the business zone from using future residential connections to access Darfield township.
 - e. The full suite of proposed upgrades to the SH73 / Creyke Road intersection should be constructed as a single stage of works and be in place prior to the development of business activities on the Plan Change site.
- 51. I consider that a safe and direct walking and cycling link should be provided between the Plan Change site and Darfield township prior to the development of the site, either through Ascot Park, Development Area 5 and/or connecting into dedicated infrastructure along SH73 through to Matthias Street. I also consider that a more comprehensive assessment of safety impacts on the State Highway should be undertaken.
- 52. I am of the view that the speed environment along SH73 and Creyke Road should be reviewed and whilst this is not a matter under the applicant's control, I encourage the relevant Road Controlling Authorities to undertake a speed limit review which is increasingly important as the local environment becomes more urbanised.
- 53. In summary, I am unable to support this plan change application from a transport perspective until such time as the safety effects of the development along SH73 have been adequately assessed, and any corresponding mitigation required being provided for within the Plan Change. I am also unable to support the application without provision for a safe and direct walking and cycling connection to Darfield being available prior to development of the site.

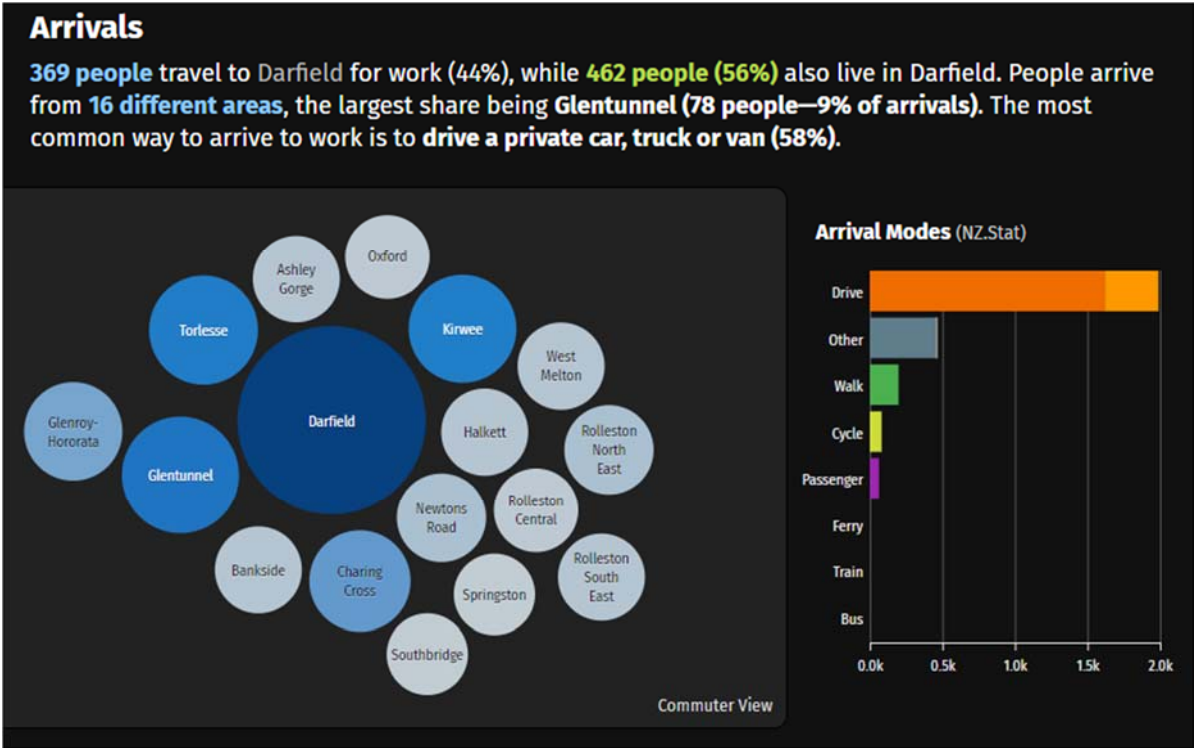
Dave Smith
22 March 2021

ATTACHMENT A CAS diagram for SH73

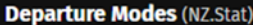


Crash diagram for SH73 (between Creyke Road and Darfield 50 km/h zone) and Creyke Road (between southern site boundary and level crossing) from 2011 to 2020 inclusive.

ATTACHMENT B Waka Commuter Journey to Work outputs



495 people (52%) leave Darfield to **33 different areas** for work. **Glentunnel**, with **45 departures (5%)** is the top destination outside of Darfield. To depart to work, people in Darfield most often **drive a private car, truck or van (62%)**.



Darfield Plan Change 61 Traffic Meeting Minutes

Prepared for: Transport Meeting Attendees
Job Number: SDC-J039
Revision: Final
Issue Date: 18 March 2021
Prepared by: Dave Smith, Technical Director
Reviewed by: Meeting Attendees

Meeting time and date:

3pm-5:20pm 11 March 2021, Abley Christchurch office

Attendees:

Jon Trewin (Selwyn DC)
Dave Smith (Abley) – representing Selwyn DC
Stuart Pearson; James Long (Waka Kotahi NZ Transport Agency)
Andy Carr (Carnageway Consulting) – representing Applicant
Anna Bensemann (Baseline Group) – representing Applicant

Issues:

1. Walk and cycle connectivity

DS raises concerns about a lack of connectivity for walking/cycling and potential reliance on SH73 as a way to walk between the PC61 site and Darfield. The Outline Development Plan (ODP) provides connections to the west (provides connectivity parallel to SH73) and south (connecting to greenfield areas to the south (but part of PC24)). A lack of walking/cycling connectivity may lead to temporary effects with respect to the safety of pedestrians and cyclists in the absence of these links, but in the longer term when the links to adjacent land are available this concern is resolved.

SP advised that walking and cycling within the 100kph state highway corridor was not seen as appropriate.

AC asks has this issue come up for Darfield Development Area 5 (DA5) which has rural residential zoning located immediately to the west? JT says DA5 currently has no ODP so it is not clear what walking/cycling connectivity would be provided. All agree that this would be logical and pragmatic for walking/cycling routes for PC61 to connect to DA5 routes.

AC suggested that PC61 could provide the links however DS/JT queried what would happen if DA5 was not to be developed for some time – the links would not create the joined-up route needed.

T +64 9 488 0898 (Aklid)
T +64 3 377 4703 (Chch)
E admin@abley.com

Auckland
Level 1, 70 Shortland Street
PO Box 613
Auckland 1140
New Zealand

Christchurch
Level 1, 137 Victoria Street
PO Box 36446
Christchurch 8146
New Zealand

www.abley.com

In each case, there remains a missing link back to Cardale Street which would need to be provided in the northwest corner of PC24.

The southern connections through PC24 are noted to be reasonably direct and may go ahead earlier as lots adjacent to Creyke Road have titles and there are several resource consents approved.

There is no certainty around the timing or delivery of a Kirwee-Darfield cycleway along SH73 adjacent to the site to provide an alternative connection. This cycleway does not appear to be a high priority.

2 SH73 / Horndon Street intersection

Several submitters raised concerns about the future performance of the SH73 / Horndon Street intersection. DS acknowledged receipt of a Carriageway Consulting technical note dated 18th February with an assessment of the delays at the SH73 / Horndon Street intersection. The assessment demonstrates satisfactory performance and any concerns around this intersection performance are considered resolved.

3 SH73 / Creyke Road intersection

Intersection design

Carriageway Consulting provided a concept design provided to all parties on the 18th February and it was acknowledged that this design was conceptual and not intended for construction. This design is important to understand the feasibility of the mitigation proposed and ensure that it does not result in additional effects.

The intersection upgrade in the drawings circulated fits into the road reserve but will require some modifications to the concept design circulated. JL would prefer this to be a roundabout to provide a safer solution. AC noted this was not an issue raised in PC24 or PC48 which generates more traffic through the intersection than the residential component of PC61 (setting aside the issue of industrial traffic for the time being). A roundabout appears to be a technically plausible long-term solution at some stage in the future if required, however it is agreed that this would encroach on Council land on the south-eastern corner of the intersection. AC proposes there may be conditions that could be offered at subdivision consent stage to ensure that land is preserved within the northeastern corner of PC61 for a roundabout if required.

The squared-up geometry of Creyke Road southern approach is considered an improvement over the current skewed layout. The left turn into Creyke Road in the design is noted by JL to impede visibility of vehicles turning out of Creyke Road. This can be addressed by providing more separation in the design, involves a slightly larger footprint and is likely to encroach further into Council land. AC notes that the current sight line for vehicles on the Creyke Road southern approach is already across Council land and could be blocked at any time.

Intersection modelling

Carriageway Consulting circulated a technical note with a modelling assessment including the cumulative effects of development to all parties on the 9th March. AC confirmed that the modelling assumed 100kph approach speed, default critical gaps and move up times from the software package, assumes no dedicated left and right turn bays as proposed in the application from SH73 lanes (to allow for a direct comparison between model runs). Full PC24 and PC48 development has been included in the future baseline to address cumulative effects. DS agreed that the technical note shows that PC61 would not lead to adverse efficiency effects in terms of queues and delays at the intersection.

The outcome of this assessment proposes that the previous trigger rule from the ITA establishing when left turn and right turning bays are provided be superseded by a rule to enable full residential development prior to an intersection upgrade, and upgrade Creyke Road intersection prior to any industrial development. This upgrade prior to any industrial development would include squaring up the intersection and providing both left and right turn lanes as a single stage of works. SP (from a planning perspective) considers this is a preferred approach. JL retains concerns regarding safety due to the current configuration of the intersection.

There is general agreement that industrial development should not occur prior to an appropriate intersection upgrade. JL considers an upgrade should occur prior to any type of development. AC considers the modest increase in traffic due to residential is acceptable especially when other developments are generating traffic through

this intersection. DS considering his position (*post meeting note from DS: DS concludes that the small increment of residential traffic from PC61 through the intersection is acceptable prior to an upgrade but retains concerns about the current speed environment in the vicinity*). AC proposes there may be some options in terms of minor interim works which could address residual concerns. JL noted any safety improvements from any small-scale interim works would be minimal.

It is acknowledged that an upgrade could be coupled with installation of an Intersection Speed Zone treatment (see item 4 below for more details). AC asked is there a process to capture levies for funding this (including possibly a cost-share between PC61, PC24 and PC48)? This may be complicated by fact that this is a State Highway intersection (that is under the control of Waka Kotahi who cannot collect Development Contributions and not SDC). JT to consider this matter.

4 Posted speeds

SH73 adjacent to the site currently has a posted speed of 100 kph. JL has spoken to speed team and understands this has been identified as a high benefit corridor but the assessment process for this corridor is likely to be three years away. JL independent view without assessment is that there is some likelihood it would go back to 80kph with potential for an intersection speed zone treatment (where lower speeds are displayed on variable posted speed signs when a vehicle(s) is approaching or stationary on one of more of the Creyke Road approaches). As the area becomes more urbanised over time a reduction in speed limit may be more likely.

AC asks whether a side agreement could be devised with respect to speed reductions should the plan change be approved and before any subdivision could go ahead, that is, the PC61 proponents would fund and therefore fast track the speed review process. SP/JL to discuss this with colleagues.

Creyke Road adjacent to the site and at the site access currently has a posted speed of 100 kph which also results in a non-compliance as documented in the ITA with respect to (definitely) intersection spacing and (potentially) sight distances at the PC61 access intersection. With PC24 properties developing along this corridor a review of the speed limit may be due and is becoming increasingly important. SDC may be able to respond to this matter – JT to follow up with colleagues.

5 Heavy vehicles using residential streets

DS noted a risk that heavy vehicles associated with industrial activity may use local residential streets including those in Development Area 5 and PC24. Acknowledged by all that there are design solutions and restrictions that could be placed on heavy vehicle movements to address this satisfactorily. This would be considered at Engineering Approvals stage (noting that ultimately the roads within PC61 will have to be vested, and if a satisfactory solution was not initially provided, then Council could decline the vesting until it was comfortable with the arrangement).

Appendix 3 - Evidence of Murray England (Water)

In The Matter of the Resource Management Act 1991 ("the Act") And

In The Matter Darfield Plan Change 61

OFFICER COMMENTS OF MURRAY ENGLAND

Introduction

1. My name is **MURRAY RUSSELL ENGLAND**. My qualifications are BE (Environmental) and NZCE (Civil).
2. I am the Asset Manager – Water Services for the Selwyn District Council ("the Council") and I am authorised to present this statement on its behalf. I have been employed by the Council since March 2009 initially holding the position of Stormwater Engineer and since May 2012 the position of Asset Manager Water Services.
3. I have the responsibility of managing Councils 5 waters which include Potable Water, Wastewater, Stormwater, Land Drainage and Water Races.
4. I have read the July 2019 Servicing Assessment by Baseline Group Ltd included in the PC Application and further information supplied by the applicant dated 22 January 2021.
5. I have considered the plan change application in relation to water supply, wastewater and stormwater management impacted by this plan change.

Water Supply

6. The Darfield Water Supply provides untreated secure groundwater to the Darfield community from bores L35/0980 and BX22/0006. These bores supply water to the network via a reservoir and booster pump station (**Refer Appendix 1 and 2**) .
7. Water take consent (CRC143985) limits the maximum rate of take to 83 litres per second and 6,000 cubic metres per day. There is 1000 cubic metres (plus 450 cubic metres of balance tank storage) of reservoir storage and a booster pumping system so the maximum flow rate that can be supplied to the community is around 88 litres per second.
8. There is also an annual take limit which is calculated from an estimate of the population to be provided with the water supply for the 12-month period x 227.3 m3 (227.3 = (365 days x 0.519 m3/person) +20%). Therefore the annual take grows with development and demand.
9. Over the last 3 years, the maximum supply demand was 71 litres per second⁴ and the daily volume 4,746⁵ cubic metres per day. This means capacity for some growth is available.
10. The water supply provides both 'on-demand' connections via water meters and also restricted connections mainly to rural properties.

Future Growth Demand

11. In response to the accelerated growth within the Selwyn District, hydraulic models have been used to plan future water infrastructure for a number of water supplies including Darfield.
12. The master planning provides an assessment of the sizing and timing of new infrastructure for new water sources (wells) and pipelines to service growth. Part of the master planning requires a water balance to be developed to forecast growth, using historical peak demand per household. The water balance forecasts the peak instantaneous flow per year versus the water resources available to determine the staging of new wells.
13. Darfield is expected to see growth over the next 30-years and to meet this growth, a new well is currently being drilled to increase supply capacity.
14. As identified by the applicant, a new bore is being drilled on land owned by Council on Creyke Road.

⁴ 2 Feb 2020

⁵ 13 Feb 2020

15. At the time of this statement, the new bore has been drilled to a depth of 233m, the drilling rig is now demobilised with cable tool rig mobilisation pending.
16. Once the bore is tested, a resource consent application to Environment Canterbury to abstract water from this well will be prepared and lodged. Consent is required before water can be abstracted.
17. Should the new bore be successful and a resource consent is granted from Environment Canterbury to take water, the proposed plan change area can be serviced by on-demand metered connections. Otherwise, each individual lot will need to be provided with a restricted water connection limited to 3 units (3000 l/day).

Fire Fighting Capacity

18. The Darfield scheme was designed as a domestic supply which has been extended into the surrounding rural areas and therefore not all areas within Darfield water supply will comply with the NZ Fire Fighting Code of Practice due to reticulation sizing in the rural areas.
19. The Infrastructure Report accompanying the plan change 'Darfield Plan Change - Servicing Report' states that *"the residential portion of the plan change area will be FW2 (from SNZ PAS 4509:2008 New Zealand Fire Service Firefighting Water Supplies Code of Practice), based on all properties being residential, non-sprinklered structures."* and *"individual buildings commercially zoned portion of the plan change is unknown this would need to be ascertained and managed at the time of building consent."*
20. Council confirms that all new subdivisions are required to be designed and constructed in accordance with Selwyn District Councils 'Engineering Code of Practice'. Section 7.5.4 – Fire service requirements, provides the following requirement:

"The water supply reticulation should comply with the Fire Service Code of Practice. In particular, the reticulation must meet the requirements for firefighting flows, residual fire pressure and the spacing of hydrants.

Location of hydrants shall comply with SNZ PAS 4509: 2008 with minimum hydrants spacing of 135 metres. Blue RRPM's (cat eyes) shall be installed to offset from the road centreline adjacent to all hydrants. Hydrant Marker posts are to be installed to comply with Section G3.4 of the NZ Fire Service

Code of Practice. Hydrant posts are not required in urban areas. The type of hydrant marker required is shown on drawing WS10.0 (see Appendix V).'

21. In summary, the reticulated water supply for this proposed plan change shall be designed to meet firefighting standards.

Conclusion

22. The ODP area can be adequately serviced with potable water initially via a restricted supply and ultimately on-demand metered supply once the new bore is drilled and consent is granted.
23. Firefighting requirements can be met.
24. It is noted that development contributions are payable for any additional lot developed.

Wastewater

25. There is no reticulated sewage network within Darfield
26. The application considers a number of wastewater servicing options. The preferred wastewater system is identified as consisting of *“individual on site disposal systems.”*
27. Resource consent from Environment Canterbury will be required before any subdivision consent can be approved.

Darfield and Kirwee Reticulated Wastewater

28. Over the past three years, a joint working party representing the Council, Malvern Community Board, Darfield and Kirwee township committees, Canterbury District Health Board and Environment Canterbury has been considering options for the possible establishment of a wastewater scheme for Darfield and Kirwee, which do not currently have a reticulated wastewater system.
29. A business case assessment in 2019, which included public consultation, indicated that while a full township wastewater scheme was not warranted, there was evidence to support a scheme for central Darfield and for any new development within the township. There was feedback from the business community of the potential benefits for growth and for reducing onsite treatment costs. It would also allow smaller houses to be provided in Darfield to provide for an ageing population.

30. The Council has endorsed the business case recommendation, to progress further planning and consultation for a reticulated scheme for central Darfield and for new developments. The Council also confirmed it will continue to seek cost-effective and environmentally sound solutions for both Darfield and Kirwee⁶.
31. Following the 2020/21 Annual Plan consultation, Council *“confirmed its intention to develop a reticulated wastewater system for central Darfield and new development areas in the town, and to investigate the option of servicing the wider community in the future. Work will be progressed over the next 12 months on preparing design, costs and funding options, including identification of a preferred treatment site, for further consultation through the Long-Term Plan 2021–2031⁷.”*
32. Following the above Council decision, a Technical Advisory Group was set up to fast track this work. The Technical Advisory Group first met on 13 July 2020 and since then prepared concept designs and cost estimates for a reticulated wastewater system for Darfield and Kirwee. A number of options were investigated including treatment at Darfield and piping wastewater to Rolleston for treatment at the Pines wastewater treatment plant.
33. Council decided to pursue the option of conveyance of wastewater to the Pines WWTP in Rolleston, and sought \$10.66 million of stimulus funding from the central government to subsidise this scheme. Council has since received the first instalment of the stimulus funding (\$5.33 million) on 20 November 2020. The final decision including the extent of the scheme will be the subject of the 2021-31 Long Term Plan consultation.
34. As detailed in the letter to Council dated 22 January 2021, the applicant acknowledged that a Ground Water Protection zone is required over a small portion of the plan change area to protect a new community water supply bore currently being drilled. No discharge of wastewater should occur within this area. **Refer Appendix 5.**
35. In terms of connection to a future wastewater system in Darfield, the 22 January 2021 letter concludes that it is *“likely that coordination with Councils reticulated system is feasible at the time of design and construction.”*

Conclusion

⁶ Council resolution – Appendix 4

⁷ Annual Plan 2020/21

36. There is a viable means to dispose of wastewater for this plan change area. I would recommend that a wastewater consent is obtained from Environment Canterbury prior to resource consent for subdivision being applied for from Selwyn District Council.
37. Should a reticulated wastewater system be available in time for the subdivision, connection to this system should be insisted on. Should a reticulated system be available, Development contributions would be payable for any additional lot developed.

Stormwater

38. It is anticipated by the applicant that stormwater will discharge to ground via sump to soakhole. The discharge of stormwater to ground is appropriate.
39. Resource consent for stormwater discharge from Environment Canterbury will be required before any subdivision consent can be approved.
40. As detailed in the applicant letter dated 22 January 2021, a Ground Water Protection zone is required over a small portion of the plan change area. No discharge of stormwater should occur within this area.

Conclusion

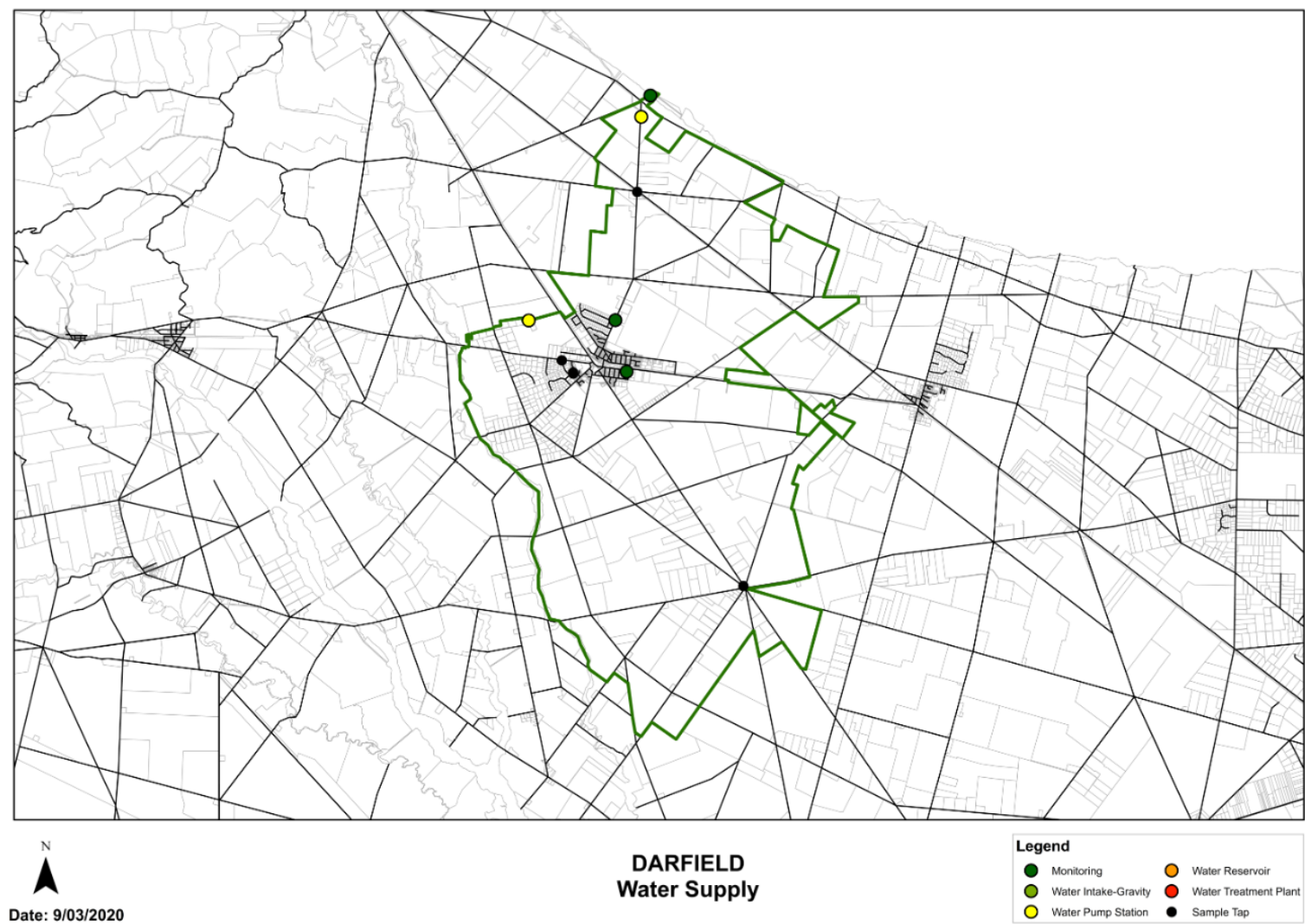
41. There is a viable means to dispose of stormwater for this plan change area. I would recommend that a stormwater consent is obtained from Environment Canterbury prior to resource consent been applied for from Selwyn District Council.

Murray England

18 February 2021

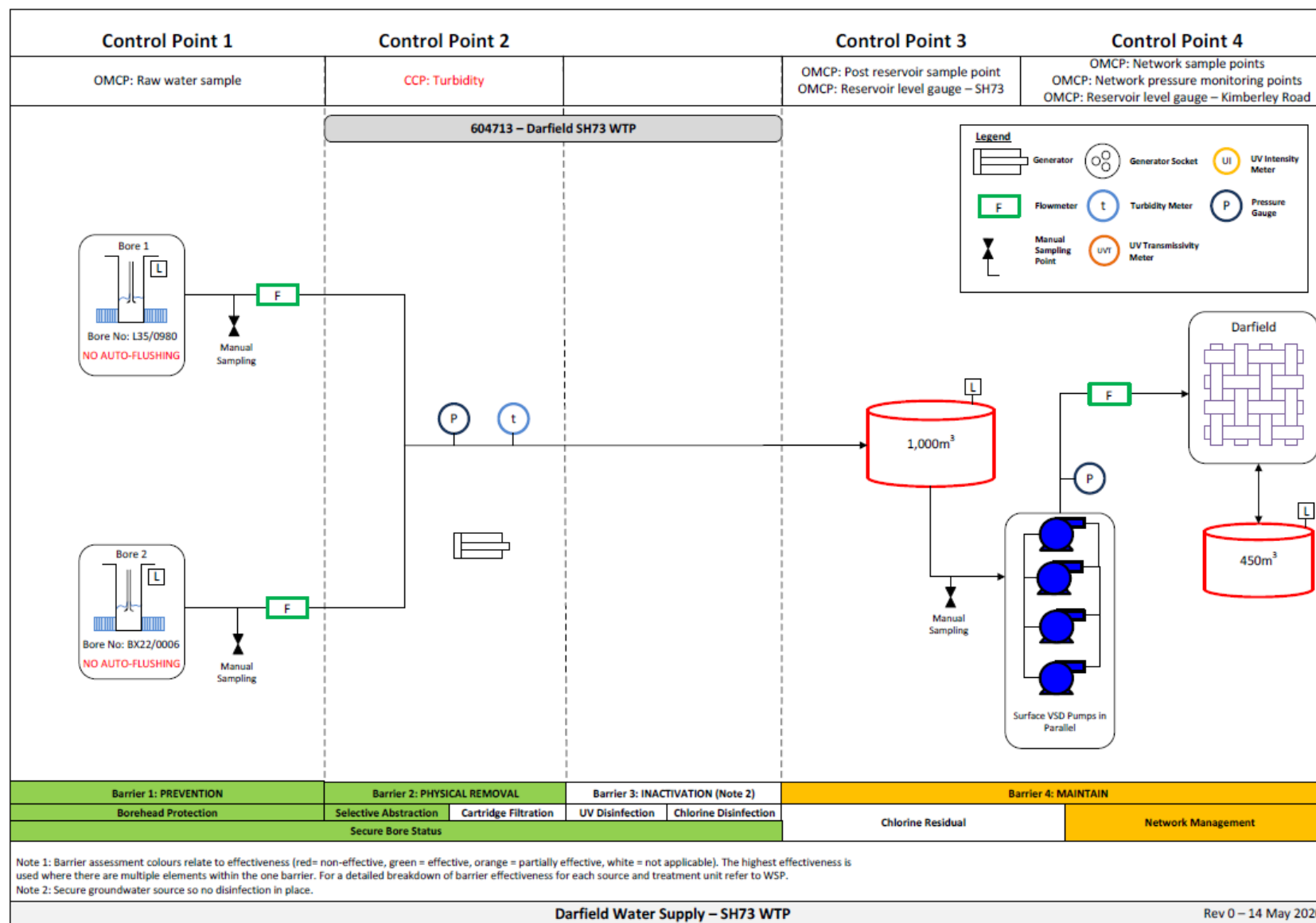
Appendix 1

Scheme Map – Water



Appendix 2

Process Diagram – Water



Appendix 3

Council 12 February 2020

‘That the Council:

- a) Receives this report ‘Darfield and Kirwee Wastewater Business Case’ for information, and
- b) Endorse the recommendation from the Darfield Business Case assessment that there is sufficient evidence to support planning toward a potential central Darfield Wastewater Scheme, and
- c) Request staff to prepare a brief statement to include in the 2020/21 Annual Plan consultation document to further engage the communities desire for a reticulated wastewater system within central Darfield and for any new development within the township; and indicating that formal consultation on any proposal would take place as part of the 2021 -2031 Long Term Plan Process.
- d) Continue to strive for cost effective and environmentally sound solutions that could ultimately benefit the whole Darfield and Kirwee communities in the future; and
- e) Review options for the location and treatment including piping to ESSS.’

Appendix 4

Darfield wastewater – planning and building a new wastewater system

What was proposed?

Following past consultation and an assessment of options for a future wastewater scheme, the Council proposed to seek further community input on the proposal to develop a reticulated wastewater scheme for central Darfield and new growth areas. This would include consultation on the preferred method to pay for the scheme, for those who connect.

Submissions and comments

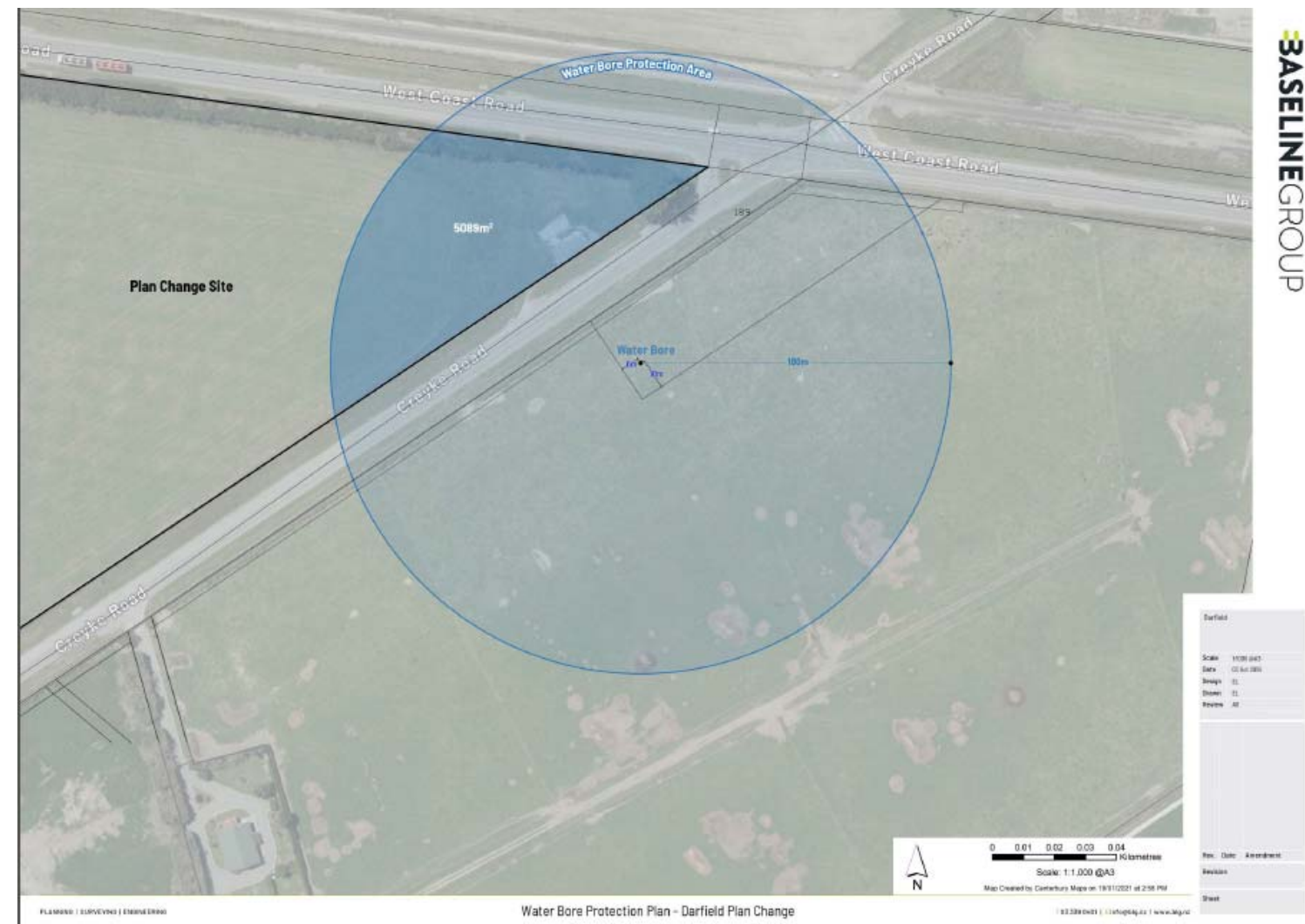
A significant majority of submitters and respondents favoured continuing with community engagement and planning for a reticulated system.

Council's decision

The Council has confirmed its intention to develop a reticulated wastewater system for central Darfield and new development areas in the town, and to investigate the option of servicing the wider community in the future. Work will be progressed over the next 12 months on preparing design, costs and funding options, including identification of a preferred treatment site, for further consultation through the Long-Term Plan 2021–2031.

Appendix 5

Ground water protection zone



Appendix 4 – Proposed Outline Development Plan

As discussed in the body of the report, it is considered that only the overall plan layer should be included in the Plan, should the plan change be approved. This is consistent with the approach taken in the proposed district plan, of consolidating information from multiple layers into the one ODP.

ODP Supplied 11 February 2021



ODP supplied 31 March 2020.



Appendix 5 – Peer review of Ascot Park Ltd submission by Pattle Delamore Partners

PATTLE DELAMORE PARTNERS LTD
Level 4, CSC House
111 Customhouse Quay, Wellington 6011
PO Box 6136, Wellington 6141, New Zealand

Tel +64 4 471 4130 Fax +64 4 471 4131
Web www.pdp.co.nz
Auckland Tauranga Wellington Christchurch



memorandum

TO	Jon Trewin	FROM	Chris Bender
	Selwyn District Council	DATE	15 February 2021
RE	Response to Issues Raised in <i>Submission in Opposition to Plan Change 61 Selwyn District Plan</i> by Canterbury Clay Bricks		

1.0 Introduction

Baseline Group Limited (BGL) have prepared an application¹ for a private plan change to the Selwyn District Plan (the Plan). The proposed plan change will rezone land located east of Darfield on SH73 from Outer Plains zoned land to Living 1 (L1) zoned land for up to 35 allotments and Business 2 (B2) zoned land. The land parcel proposed for rezoning is adjacent to a brick manufacturing facility, Canterbury Clay Bricks (CCB) on Horndon Street. BGL commissioned an independent air quality assessment from NZ Air² which assessed the effects of air discharges from the CCB site on the surrounding environment. The air quality assessment specifically considered potential reverse sensitivity effects on the proposed plan change area.

Selwyn District Council (SDC) requested an independent assessment from Pattle Delamore Partners Ltd (PDP) of the application, in particular in relation to air quality effects from the brick manufacturing plant on the proposed plan change area. PDP provided a technical review of the assessment of effects to SDC on 5 March 2020. The review considered the original air quality technical report as well as a technical air quality response to requests for further information³.

Subsequent to the acceptance of the application for private plan change by SDC, a submission opposing the proposed plan change was made by CCB⁴. SDC has requested PDP to respond to selected issues in raised in the submission which pertain to the air quality assessment and further information response provided by the applicant.

2.0 Scope of Assessment

In the email dated 11th February 2021, SDC requested that PDP consider three specific issues raised in the Submission by CCB, as follows:

- The underappreciation in the air quality assessment of the north westerly wind in the Darfield area and the potential for air discharges to be carried to the south towards the Plan Change area;

¹ Baseline Group, *Application for Private Plan Change, Section 1 SO 1227, Darfield*, 4 August 2019.

² NZ Air Limited, *Air Quality Assessment Canterbury Clay Bricks Furnace Operation*, 6 July 2018.

³ Letter, *Technical Air Quality Response to Request for Further Information – PC190061*, Donovan van Kekem (NZ Air) to Ben Baird (SDC), 4th February 2020.

⁴ W.D. Boyes & Sons Limited, *Submission in Opposition to Plan Change 61 Selwyn District Plan*, 29 July 2020.

- An assumption in the air quality assessment that product on site is always damp during the manufacturing process, however crushing of product under an open ended canopy does occur in dry conditions. Although water suppression is used, this is not failsafe.
- An assumption in the air quality assessment report that continuous operation of the brick manufacturing process is highly unlikely, whereas CCB state that operations run for 11 months a year on a 24/7 basis.

Our response to these issues is provided in the following section.

3.0 Response to Issues Raised in Submissions

3.1 Wind Direction

Paragraph 25 of the submission states:

Critically, the air quality assessment fails to take proper account of the north westerly winds in the Darfield area. As set out in PDP's technical review of the NZ Air Ltd assessment "the higher frequency of northerly wind directions measured in Darfield compared to what was modelled could potentially result in a underprediction of concentrations withing the proposed plan change area to the south of the brick manufacturing.

PDP acknowledges that distribution of winds used in the NZ Air dispersion modelling assessment differed from that which is observed at the nearest meteorological monitoring stations, and that the measured winds show a higher frequency of northerly and north-westerly winds as compared to the modelling dataset. However, in PDP's technical review of the NZ Air Ltd assessment, PDP stated that as the discharges were modelled on a continuous 24-hour basis over a three-year period, the worst-case meteorological conditions for dispersion during periods of northerly winds would be observed and accounted for in the modelling. In our experience this is an appropriate assumption for short term (1-hour and 24-hour averages), which are of most concern in regard to air quality effects. As such, PDP considers the meteorological data used in the dispersion modelling assessment to be adequate for assessing the effects of the CCB discharges.

3.2 Fugitive Dust Effects

The submission raised issues regarding the assessment of fugitive dust effects, which the submitter considered not to reflect actual practice at the CCB site. Issues included:

Paragraph 27 of the submission, which states:

The air quality assessment places heavy reliance on the product (being the clay and other materials used to manufacture the bricks) being "consistently damp/wet during the process". This is incorrect. Materials such as raw clay can sit dry at the Canterbury Clay Bricks site before and after manufacturing.

Paragraph 28 of the submission, which states:

The air quality assessment also makes the assumption that "much of the final product preparation, extrusion, drying and baking activities occurred within a large, enclosed building". However, crushing occurs underneath an open-ended canopy with effects often exacerbated on a dry summer day with a north westerly breeze. Canterbury Clay Bricks consider the weather conditions prior to crushing and utilise a sprinkler system however these mitigation measures are not fail-safe.

Best practice dust mitigation measures focus mainly on those that prevent the entrainment of particulate matter by strong winds. Keeping material damp or sheltered from strong winds are standard mitigation measures that are undertaken where there is potential for nuisance dust effects. These measures are

employed to some degree at the CCB site, although the submission indicates that they are not failsafe mitigation measures.

Regardless, it is the responsibility of CCB to ensure that there are no objectionable or offensive discharges of particulate matter beyond the site boundary. PDP acknowledges that the proposed plan change may result in an increased sensitivity to effects of dust and what may be classified as offensive and objectionable, particularly in the residential zoned area. However as stated in the air quality assessment, the residential area is 200 metres from the CCB site boundary. In our experience the main effects of nuisance dust occur within 100 metres of a significant dust source, and beyond 200 metres of the dust source the effects are generally considered to be negligible. Furthermore, the activities at the CCB site with potential for dust generation would in our experience be considered a relatively small in scale. Therefore, the potential effects of nuisance dust from the CCB site can be reasonably expected to be at a low level provided a reasonable level of dust mitigation is employed.

3.3 Assumptions of Continuous Operation

Paragraph 29 of the submission states:

The modelled results as contained in the air quality assessment are not conservative as suggested. Both PDP and NZ Air Ltd have made the assumption that “continuous operation would be highly unlikely”. This assumption is incorrect. Canterbury Clay Bricks runs from 15 January to 15 December each year with the core plant operating on a 24/7 basis.

While the commentary in the report states that “continuous operation would be highly unlikely”, the dispersion modelling of contaminant discharges undertaken assumed 24/7/365 operation of the plant at full capacity. The assumed emission rates were based on the maximum fuel usage rates for the operation of both kilns present at the site and contaminants were assumed to be discharged continuously over the three-year modelling period, which the applicant considered to be ‘very conservative’, given that it is unlikely that CCB would be burning fuel at the maximum rates which were modelled over the entirety of the three year period.

Dispersion modelling assessments of continuous or batch processes commonly assume the continuous discharge of contaminants at the maximum likely rates of emission in order to provide some assurance that if the highest emission rates coincide with unfavourable meteorological conditions, then the worst case scenario for environmental effects will be considered. We consider the approach taken by NZ Air to be a conservative representation of likely operations at the plant.

4.0 Closing

PDP trust the review presented in this letter meets the requirements of SDC. If you have any questions or comments on the review, please do not hesitate to contact Chris Bender or Steve Pearce.

5.0 Limitations

This memorandum has been prepared by Pattle Delamore Partners Limited (PDP) based on information provided by SDC and NZ Air. PDP has not independently verified the provided information and has relied upon it being accurate and sufficient for use by PDP in preparing the memorandum. PDP accepts no responsibility for errors or omissions in, or the currency or sufficiency of, the provided information.

This memorandum has been prepared by PDP on the specific instructions of SDC for the limited purposes described in the memorandum. PDP accepts no liability if the memorandum is used for a different purpose or if it is used or relied on by any other person. Any such use or reliance will be solely at their own risk.

© 2021 Pattie Delamore Partners Limited

Prepared by



Chris Bender

Service Leader – Air Quality

Reviewed and approved by



Steve Pearce

Technical Director – Air Quality