

IN THE MATTER

of the Resource
Management Act 1991

AND

IN THE MATTER

of Silverstream Estates
Limited Private Plan
Change 24 to the Selwyn
District Plan

SECTION 42A REPORT OF JANE WHYTE

1. My name is Jane Whyte. I am engaged by Selwyn District Council (SDC) to prepare this report. My qualifications and experience are set out in Appendix 1.

INTRODUCTION

2. I have prepared this report on Proposed Private Plan Change 24 (PC 24) in accordance with Section 42A of the Resource Management Act 1991 (RMA). The purpose of my report is to draw to the Commissioner's attention to matters pertinent to his consideration, including evaluating and making recommendations on the submissions received. My evaluation is based on the information presented in the Plan Change Application, the submissions and information provided by the applicant following the close of submissions.
3. Additional information is likely to be presented by parties at the hearing. The recommendations within the Section 42A reports are the opinions of the reporting officers. The Hearings Commissioner will decide on each submission after hearing and considering all relevant matters.
4. In addition to this report in Appendix 6 are additional reports which also form part of the Section 42A report from:
 - a) Andrew Mazey addressing traffic and transportation matters,
 - b) Murray England addressing servicing matters
 - c) Mark Rykers addressing reserve matters and
 - d) Russell Malthus addressing environmental health matters.
5. My report is structured as follows:
 - a) Overview of proposed plan change - within this section I provide an overview of PC24, including what is proposed, its status and the process followed.
 - b) Statutory context - within this section I summarise the RMA requirements that affect the determination of PC24.
 - c) Assessment of submissions and other matters- within this section I consider the points raised in submissions.

- d) Final statutory assessment - within this section I evaluate PC24 against the overriding RMA requirements.
 - e) Overall conclusion and recommendation - within this section I set out my overriding conclusion and recommendation.
6. The appendices forming part of this report are:
- a) Appendix 1: Qualifications and experience - within this appendix I set out my qualifications and experience.
 - b) Appendix 2: History to Proposed Private Plan Change 24 – within this appendix I summarise the pertinent events leading to PC24.
 - c) Appendix 3: Recommended Provisions – within this appendix are the recommended provisions relating to the Plan Change
 - d) Appendix 4: Recommendations on individual submission points - within this appendix I detail recommendations on each submission point as summarised by SDC.
 - e) Appendix 5. Revised Outline Development Plan. This appendix contains a copy of the revised Outline Development plan referred to in this report.
 - f) Appendix 6: Reports of Andrew Mazey, Murray England, Mark Rykers and Russell Malthus.

OVERVIEW OF PROPOSED PLAN CHANGE

- 7. PC24 is a private plan change to the operative District Plan (Township Section). The history and background to PC24 is set out in Appendix 2.
- 8. It is recognised that in order to develop this land, additional resource consents may be necessary from Environment Canterbury. These may include:
 - i) A water permit to provide potable water.
 - ii) A stormwater discharge permit.
 - iii) A wastewater discharge permit to enable servicing of the rezoned land. Consent for wastewater treatment and disposal from a limited area of the Plan Change Site has been granted by Environment Canterbury.

Process

- 9. By resolution, the SDC accepted PC24 on 11 May 2011.
- 10. PC24, together with the necessary supporting Section 32 report, was publicly notified and submissions closed on 30 June 2011. Twenty seven submissions were received. A summary of 26 of these submissions was publicly notified, with further submissions closing on 7 September 2012. A separate notice for one submission (Curtis) was notified

with further submissions on this submission closing on 5 October 2011. Further submissions were received from four parties.

Plan Change Overview

PC 24 As notified

11. PC24 as notified relates to an area just less than 114 hectares and is located in Darfield. The Plan Change area is located on the south-eastern boundary of Darfield Township. The site is bordered by West Coast Road (SH 73), Mathias Street, Cardale Street, Telegraph Road and Creyke Road.
12. The existing zone of the Plan Change area is predominantly Living 2A Deferred (this applies to the land fronting Creyke Road and Telegraph Road). The Plan Change proposes to change part of the current Living 2A Zone to a Living 1 Zone. The existing zoning over the remainder of the Living 2A Zone (closest to Creyke Road) will remain. An ODP for the entire area showing amongst other things key roading connections is introduced.
13. Part of the Plan Change area fronting Cardale Street and Mathias Street is currently zoned Business 2. Within the notified plan change an area of Business 2 land (approximately 12 hectares) is proposed to be rezoned to Living 1. A new area of Business 2 land of a similar size (0.9ha larger) is proposed to be rezoned in an area between Cardale Street and West Coast Road (SH73).
14. The Request seeks to rezone 113.4 hectares of land having a mixed Business 2 and Living 2A Deferred zoning resulting in approximately:
 - a) 13.3 ha of Business 2 zoned land located in the northern section of this site adjacent to West Coast Road (State Highway 73).
 - b) 45.3 ha of Living 1 land located towards the centre of the site adjoining parts of Cardale Street and Telegraph Road.
 - c) 45.8 ha of Living 2A zoned land on the southern part of the site adjoining part of Telegraph Road and Creyke Road.
15. The Request comprises land in 26 different Certificates of Title. The proposal seeks the land to be developed in accordance with the current zoning provisions applying to the Business 2, Living 1 and Living 2A Zones. The application provides for the development potential of the Living 1 and Living 2A zoned land to be deferred until a potable water supply is available. The removal of the deferred status would require a resolution of Council rather than another Plan Change. Minor changes are proposed to the policies and explanations of the Plan. These changes relate to updating the number of areas where the deferred zoning applies.
16. Additional changes are proposed to the rules to ensure that provisions necessary to enable the development of the Plan Change are within the District Plan. The rules are linked to an Outline Development Plan (ODP) which will guide the key integrated management components of the Change.
17. The key features of the original ODP (which are where necessary reinforced in proposed rules) include:

- A 5 metre wide landscape strip along the eastern boundary of the proposed Business 2 zone to screen industrial activities.
 - A 10 metre wide landscape strip to be planted in trees and shrubs to assist screening the proposed industrial activities along the boundary with State Highway 73.
 - No vehicle access is to be along the State Highway 73 frontage except where there are existing accesses. No road link is proposed in the subject site to State Highway 73.
 - The existing shelterbelt along Creyke Road is to be retained except for areas of road access.
 - All landscaping is to be subject to the Landscape Concept Plan.
 - Pedestrian and cycle links are to be established from the site to Pemberton Avenue on the western side of the site
 - Provision for future roading links are proposed
 - The water races that run along the Telegraph Road/ Cardale Street frontages into the northern part of the site are to be developed into landscape amenity features at the time of any building/activity.
 - Prior to the development of land for Living 1 purposes along the boundary with Cardale Street existing Business 2 zone an acoustic fence shall be constructed and a landscape strip provided.
 - Residential uses on any currently zoned Business 2 land is be limited depending on the adjacent land use.
 - A connected internal roading network is to be formed.
 - Any development of the Living 1 zoned land will commence at the Mathias Street/Cardale Street entrance of the Plan Change land the application identified that this was to ensure direct linkages with the centre of the township.
18. The changes to the provisions proposed by the applicant are detailed in section 5.0 of the application. In summary the key changes proposed are:
- a) Amend Policy 4.3.22¹ to recognise that an outline development plan for the plan change 24 area has already been developed.
 - b) Insert new rules relating to the Deferred Living Zone - Darfield to recognise that the land subject to this plan change is to remain deferred until such time as a Council resolution is passed concerning the availability and capacity of a water supply for the site.
 - c) Insert new rules relating to the deferment of the Business Zone Land relating to the availability of water.
 - d) Provide a new permitted activity rural that states that any vehicular access ways not provide access and Creyke Road from land within the subject site other than those accesses specified on the ODP.
 - e) Ensuring that any non-compliance with the above access rule renders the activity a non-complying activity.
 - f) Inserting new subdivision rules to provide for subdivision of the land (once the deferral is removed) as follows:

¹ The policy number has changed from the time the Plan Change was notified. This policy is now Policy B4.3.28

- i) subdivision be in general accordance with the layout and content of the outline development plan
 - ii) any subdivision plans be accompanied by a landscape plan and planting plan detailing plantings to be undertaken and reserve areas to be established generally in accordance with the Landscape Concept Plans to be contained in a District Plan appendix
 - iii) development of acoustic fencing along the boundary with the Cardale Street Business 2 zone (this rule is related to the Business 2 zone which is no longer proceeded with)
 - iv) prior to the development of land for Living 1 purposes along the boundary with the Cardale Street Business 2 zone an acoustic fence and landscaping strip be provided.
 - v) various rules relating to the residential use on any allotment currently zoned Business 2, into managing transformation access in relation to the new Business 2 zone that was proposed adjacent to the State Highway.
 - vi) Insertion of a new appendix in the District Plan inserting the ODP for the area and the associated Landscape Concept Plans.
19. It is the above Plan Change and Outline Development Plan that the submissions received have been based upon.

Revised Outline Development Plan

20. The Plan Change applicant has advised the Selwyn District Council that the Outline Development Plan for the Proposed Plan Change area is to be amended. A copy of this revised Outline Development Plan is in Appendix 5 of this report. The key change is that the applicant no longer proposes to rezone the existing Business 2 zoned land to Living 1. As a consequence the applicant is also no longer seeking to create a new Business 2 Zoned area adjacent to West Coast Road (SH73).
21. Updated assessments of environmental effects or evaluations relating to the revised ODP have not been provided. The applicants have advised that they intend on formally modifying the ODP through the hearing to address issues raised through the submissions received on the Plan Change. The changes to the Plan Change that are reflected in the revised ODP are considered to fit within the scope for change to the Plan Change enabled by the submissions.
22. While the Plan Change applicants could have waited for the hearing to identify these changes advance notice of the changes has been provided to the Selwyn District Council so that the Section 42A reports could consider the implications of the changes. While the lack of assessments addressing the specific changes is not ideal when preparing these reports, it is understood that the intent of the changes proposed to the ODP are in an effort to reduce the levels of actual or potential adverse effects that may result.
23. Overall, it has been beneficial to know that the applicant is no longer seeking to advance the relocation of the Business 2 Zoned land adjacent to West Coast Road, and is not seeking to change the existing Business 2 zoned area into a Living 1 zone.

24. I consider that a number of the most significant actual or potential effects associated with PC24 as notified resulted from the proposed changes to the Business 2 zoned land. The potential issues arising for the changed Business 2 zoned land raised significant issues of both a strategic and detailed nature. A number of these issues were identified in the report that went to Council prior to PC24 being notified and were raised in further information requests issued by Selwyn District Council. In summary the key issues of concern were:
- a) The implications of the proposed relocation of the Business 2 area resulting in the further spread of the business area of Darfield along State Highway 73.
 - b) The implications of the proposed relocation on the form of development that is anticipated to occur in the Business 2 Zone.
 - c) The implications of the proposed relocation on the current transportation strategy and plans being prepared for Darfield.
 - d) The implications of the change in location on the current form and function of the township.
 - e) The adequacies of the existing planning provisions for the Business 2 zone were a substantial new area adjacent to the State Highway established.
 - f) The implications of this change on the Darfield Development Integration Plan and the District Wide Strategy, particularly linkage issues within the township.
 - g) The location of the potential Business land and the implications of this on the overall amenity and function of the existing town centre and on town consolidation and infrastructure efficiencies.
 - h) The implications for existing business through rezoning the current Business 2 Zone to Living 1.
25. Within this Section 42A report – given the changes proposed by the applicant to not change the current Business 2 Zoning I have not completed a detailed evaluation of the actual or potential effects of relocating the changes to the Business 2 Zone. Had the applicant sought to continue to advance the relocation of the Business 2 zoning it is likely that additional input into the Section 42A report would have been sought to address the actual or potential effects from a retail functioning perspective and further assessments on the actual or potential effects on the existing Darfield town centre. In addition my report would have provided detailed information and an evaluation of the potential effects and implications of the plan change on the overall form and function of Darfield as I did have significant concerns regarding the appropriateness of the changes proposed to the Business 2 zone, both with the relocated zone and with rezoning an existing Business 2 area for residential purposes. Given that the revised ODP is no longer seeking to rezone the existing Business 2 land and is no longer seeking a new Business 2 zoned area adjacent to the State Highway I have not evaluated the implications of the original application relating to the Business 2 zone in further detail.
26. The changes to the ODP, relating to the Business 2 zone without accompanying detailed assessments, may make preparing for the hearing more challenging for submitters. From the perspective of preparing the Section 42A reports the key difficulty is that the assessments and information provided in the application related to the Outline Development Plan as notified. What this has meant is that some within the Section 42A report there are a number of uncertainties as to the detail that is intended to be on the new ODP, for example what

changes will be proposed to the Landscape Concept Plans, and how the deletion of the B2 zoned areas affects the assessments provided such as on traffic matters.

27. Any areas of uncertainty identified in the preparation of the Section 42A reports have been identified. It is considered that the areas of uncertainty identified within the Section 42A reports are capable of being satisfactorily addressed at the hearing by the applicant. If this occurs then adequate detailed information will be available to the Commissioner to aid his decision making.
28. The remainder of this report addresses, as far as possible, the revised ODP provided by the applicant.

Detail of Revised Outline Development Plan and Provisions

29. The revised ODP addresses land proposed zoned as Living 1 and Living 2A. The proposal would result in approximately the following:
 - a) An estimated 31.3² ha of Living 1 land located towards the centre of the site adjoining parts of Cardale Street and Telegraph Road. The development of this land is subject to being deferred until a water supply is available.
 - b) 45.8 ha of Living 2 A zoned land on the southern part of the site adjoining part of Telegraph Road and Creyke Road. The development of this land is subject to being deferred until a water supply is available.
30. The key features of the revised ODP include:
 - All landscaping is to be subject to the Landscape Concept Plan.
 - Provision for a future roading link to the north is proposed.
 - An amenity feature running along the boundary of the Living 1 Zone with the existing Business 2 Zone and along the frontage of Telegraph Road is proposed.
 - A connected internal roading network is to be formed.
 - Any fencing along the Telegraph Road or Creyke Road frontages or the boundary with the Outer Plains zone shall be generally consistent along the length of the frontage/boundary and is to be of open rural style, such as post and rail or post and wire.
 - No individual property access is to be provided along Creyke Road, except for those already existing.
 - A wastewater discharge area is shown on the plan change site, and an alternative possible area is shown on the adjoining Selwyn District Council land.
31. The current District Plan for the Living 2A zone currently provides that subdivision of the deferred zoned land is not to take place until there is:
 - 1) A potable water supply is available which is capable of serving the lots within our subdivision; and
 - 2) An outline development plan addressing those matters identified in the explanation and reasons to Policy B4.3.28³ Darfield Specific Policies has been incorporated into the District

² Confirmation is sought from the applicant as to the are of Living 1 zoned land proposed under the revised ODP

Plan for the area as identified in Appendix 25 within which the subdivision is proposed. (Rule 12.1.3.9).

32. This Plan Change introduces an outline development plan and still seeks to limit development until potable water can be provided. The plan change seeks to primarily utilise the existing provisions and objectives and policies in the Plan. The typical average allotment sizes (development densities) anticipated by these zones within Darfield are: Living 2A Deferred - 1ha and Living 1 - 650m². The only changes made to the provisions are those necessary to enable the outline development plan and the key components shown on the outline development plan to be implemented.
33. The applicant has not provided an updated set of provisions that would address only the new ODP. Given the overall list of provisions specified in paragraph 18 of this report any matters addressing changes to the Business 2 Zone are no longer be relevant. I consider the following provisions are likely to be relevant to the revised ODP:
- a) Amend Policy 4.3.28 to recognise that an outline development plan for the plan change 24 area has already been developed.
 - b) Insert new rules relating to the Deferred Living Zone - Darfield to recognise that the land subject to this plan change is to remain deferred until such time as a Council resolution is passed concerning the availability and capacity of a water supply for the site.
 - c) Provide a new permitted activity rural that states that any vehicular access ways not provide access and Creyke Road from land within the subject site other than those accesses specified on the ODP.
 - d) Ensuring that any non-compliance with the above access rule renders the activity a non-complying activity.
 - e) Inserting new subdivision rules to provide for subdivision of the land (once the deferral is removed) as follows:
 - i) subdivision be in general accordance with the layout and content of the outline development plan
 - ii) any subdivision plans be accompanied by a landscape plan and planting plan detailing plantings to be undertaken and reserve areas to be established generally in accordance with the Landscape Concept Plans to be contained in a District Plan appendix
 - iii) Insertion of a new appendix in the District Plan inserting the ODP for the area and the associated Landscape Concept Plans.
34. Within Appendix 3 I set out the provisions that, if the plan change is approved the Commissioner may consider inserting into the District Plan. I note that some plans, such as the Landscape Concept Plans would need to be updated prior to their inclusion into the District Plan so that works associated with the Business 2 Zone relocation are excluded. I expect that the applicant may wish to comment on the appropriateness or otherwise of the recommended provisions at the hearing. I note that some of the proposed rules (particularly the setback from any wastewater treatment area) lack certainty as a range in setbacks is identified in the rule as drafted. I anticipate that at the hearing greater clarity as to the appropriate setback, if any, will be provided.

³ Policy 4.3.22 in the application documentation

STATUTORY CONTEXT

35. The statutory considerations for determining a plan change are well established. In this circumstance these are largely found in sections 31, 32, 74, 75, 76 of the Act. As with all processes under the Resource Management Act Part II is the paramount consideration. In addition to Part 2, the most relevant matters are considered to be as follows:
- a) Section 74 (1) requires an assessment of the plan change request against Council's functions under section 31, its duty under section 32 and Part 2 of the Act. Section 74 or so requires Council to have regard to any proposed regional policy statement or regional plan and management plans or strategies prepared and other acts.
 - b) Sections 75(1), 75(3) and 75(4) require the District Plan, and therefore the plan change request, to state objectives, policies to implement the objectives and rules (if any) to implement the policies.
 - c) Each proposed policy or method (including each rule) is to be examined having regard to its efficiency and effectiveness, as to whether it is the most appropriate method for achieving the objectives of the district plan taking into account
 - i) The benefits and costs of the proposed policies and methods (including rules); and
 - ii) The risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies, rules, or other methods
 - d) In making a rule the territorial authority must have regard to the actual or potential effect of activities on the environment
 - e) Any district plan must give effect to any operative regional policy statement and have regard to any proposed regional policy statement.
 - f) After considering a request lodged and processed under clause 29 (4) of the First Schedule of Acts, the council may decline, approve or approve with modifications the plan change request and give reasons for its decision.
36. The above considerations must occur within the context of section 5 of the Act, which in turn is informed by sections 6, 7 and 8. The purpose of the Resource Management Act is to promote the sustainable management of natural and physical resources.
37. In the sections below, I set out the key provisions of the three directly relevant statutory documents: the Selwyn District Plan, Operative Canterbury Regional Policy Statement and the Proposed Canterbury Regional Policy Statement. While the Canterbury Natural Resources Regional Plan, the Proposed Regional Land and Water Plan and the Canterbury Regional Transport Strategy 2008-2018 are also technically relevant, in my view there is nothing in these documents which is central to determining PC24.

Selwyn District Plan

38. The township volume of Selwyn District Plan includes the provisions relevant to PC24.
39. In addition to the operative District Plan provisions Plan Change 31 is a Selwyn District Council initiated Plan Change which seeks to implement the Darfield Integration Plan. This Plan Change has been publicly notified and submissions have closed. This Plan Change does seek to alter a number of provisions in the township section of the District Plan relating to Darfield.
40. The primary focus of Change 31 is the introduction of provisions to manage development in the Darfield deferred zones. The overview to the change recognises that the change seeks to provide for the strategic development of a coherent roading/cycling and walking network in the deferred Living areas around Darfield Township. The purpose of Change 31 is to give some statutory weight to the Integration Plan within the District Plan. The Integration Plan sought to provide an integrated and comprehensive approach to planning and development within Darfield when the current shortage of potable water is overcome.
41. The area subject to Plan Change 24 is included as Area 3 within the Darfield Integration Plan and Change 31. Within the Integration Plan Area 3 is shown as having a Living 2A deferred zone. It is noted that consideration within Change 31 of the current shortage of potable water being able to be overcome are based on this land retaining a Living 2A zone.
42. Key matters within Change 31 relevant Area 3 include:
 - a) Management of the interface between the existing Business 2 zone and the rural residential development (average size of 1 ha) of Area 3, particularly reverse sensitivity issues.
 - b) Integration of roading networks and identification of open space focal points and retention of vegetation through the subdivision process.
43. Change 31 states that "the brief of this plan change does not consider any rezoning. Rezoning proposals, would allow for higher densities in proximity to the town centre (e.g. as Area 1). The reason for not being addressed within this brief are time constraints, which this plan change aims to meet. With the limitation of water solved in 2012, the pressure is on to implement the Outline Development Plans before or at the same time to make sure development occurs in a comprehensive manner and while rezoning is not part of this brief, Council is working on a District Wide Strategy which will further investigate the appropriateness of existing zoning" (Page 14 Change 31).
44. Submissions and further submissions have closed on Change 31 but to date no hearing has been held. While full weight cannot be put on Change 31 it is a relevant consideration. Further consideration of Change 31 is also provided within the report of Mr Mazey.
45. The Commissioner will need to be cognisant of the specific wording changes to the provisions introduced through Change 31 to ensure that any changes to provisions between this Plan Change and Change 31 are not inconsistent. In my view it is possible to achieve an outcome for PC24 that does not result in inconsistencies with Change 31. For completeness consideration has been given to the provisions of the Selwyn District Plan both as though they were unchanged by Change 31 and to the District Plan as altered by Change 31.

46. The most relevant provisions within the District Plan is Section 4 Growth of Townships.
47. The two key objectives are B4.1.1 and B4.1.2. These seek to provide a range of living environments in townships while maintaining the overall spacious character of Living Zones and that new residential areas are pleasant places to live and add to the character and amenity values of townships.
48. Policies B4.1.1 to B4.1.9 address general density issues. Overall the primary density outcomes are to provide for choice and flexibility in residential density provided that overall the density still achieves a spacious character. Policies 4.1.10-4.1.12 addresses the provision of open space and ensuring appropriate amenity and a spacious character of townships overall, having regard to open space, fencing and landscaping.
49. Matters relevant to consideration of these policies have been addressed in this report and with respect to open space in the reports of Mr Rykers. Overall I consider that the Plan Change can occur in a way that does not conflict with these provisions.
50. Section 4.2 addresses subdivision of land. As part of Change 31 a new policy is to be inserted into the District Plan. This policy will apply at the time any subdivision of land takes place, but it has some relevance to this Plan Change. This is Policy B4.2.10 and seeks:

“To ensure development within the Darfield Integration Plan area is in accordance with the Outline Development Plans so that development proceeds in a logical and coherent manner that provides for internal and through connections and a high standard of public amenity by:

 - a) Providing for pedestrian, cycle and vehicle movement within and through the area in accordance with the outline development maps (Appendix 26A-F)
 - b) Protecting the rural-residential character of Darfield’s fringes by retention of low density development, addressing potential reverse sensitivity issues between different activities and preserving and enhancing natural features such as water races and shelterbelts.”
51. Mr Mazey has identified the need for the Outline Development Plan within PC24 to not conflict with PC31. I am confident that this can occur. In order for inconsistencies to be avoided it will be necessary for the implications of both changes to be considered at this hearing and the hearing that will occur on Change 31.
52. Policies 4.3.1 to 4.3.6 are policies addressing town form. Policy B4.3.2 addresses areas outside of the Greater Christchurch area. This policy requires any land rezoned for new residential development to adjoin along at least one boundary an existing living or Business zone in a township. Policy 4.3.4 is to encourage new residential or business development to occur on vacant land in existing Living or Business zones. The policies seek to encourage townships to expand in a compact shape where practical. It is recognised that the subject land is already identified as being within a living zone albeit a Living 2A zone that seeks a low density residential environment of one dwelling per hectare. The proposed Living 1 zone under PC 24 does adjoin existing Living and Business zoned land in Darfield.

53. Policies B4.3.23 to B4.3.28 are directly relevant to Darfield. Change 31 adds a new policy pertaining to Darfield which addresses the rural residential areas in the Living 2A (Deferred) zone. It seeks that development occur in accordance with the incorporated Outline Development Plans. PC24 does introduce an Outline Development Plan for the Plan change area – albeit with some differences with the Change 31 ODP.
54. Existing policy 4.3.23 recognises that there are already large areas of land zoned for Living within townships within Darfield that remain undeveloped. The policy seeks to encourage new development to occur on vacant land within existing zones. Therefore purely in terms of the quantum of land zoned which would enable potential residential development within Darfield and the likely future demand for land there is not a shortage of zoned residential land within Darfield. Within PC31 it is recognised that the deferred areas are capable of accommodating up to some 2,000 new households in the event that all of the deferred zones and existing already zoned sections are fully developed in accordance with the average lot sizes of the relevant zones.” (Page 5 PC31).
55. While the policies express a preference for new residential development to be on sites in existing living zones if these are available – the policy is an encouragement policy, not a requiring policy. I address the issue of the need/demand for the land to be rezoned further in my evaluation of the submissions. I also note that the land subject to the Plan Change is currently zoned Living 2A and therefore it is land already within an existing Living zone.
56. PC24 retains an area of Living 2A zoning that will assist in maintaining the overall urban form of Darfield which will provide for rural residential development around the township in a manner consistent with Policy B4.3.28.
57. It is recognised that constraints remain with the provision of a potable water supply to service the increased density of development within the proposed Living 1 zone. While the new water supply by Selwyn District Council may be able to accommodate a greater area of development at a Living 2A density, issues remain in providing water for all of the land currently with a deferred zones⁴, and certainly remain for the increased Living 1 Zone density. To be consistent with the existing policies in the District Plan addressing water supply and reticulated services it is essential that no development occur until a suitable option for the provision of water to the increased density is provided.
58. The site of PC24 is already identified as suitable for residential purposes at a low density – therefore the future land use of this area is intended to be changed from that currently existing. Given the existing zoning I consider that the locational aspect of the relevant policies in the District Plan can be taken as being met. What is now of relevance is what is the appropriate form and density of residential development that should occur.
59. The policies also seek that any reverse sensitivity issues with adjoining zones be managed. In the case of PC24 there are some reverse sensitivity effects that may arise if the interface between the existing B2 zone and the proposed Living 1 zone is not appropriately

⁴ PC31 identifies that “It is anticipated that water will be available for early 2012 for servicing approximately half of the potential sections in the deferred zones. It is likely that the provision of additional wells will be required should all of the deferred land be developed.” (page 6 PC31).

managed. In addition there are some potential reverse sensitivity issues with adjoining land uses such as the Darfield Shooting Centre and the potential wastewater treatment area. These matters have been addressed in the report by Mr Malthus.

60. Transportation related provisions have been addressed by Mr Mazey. I have also reviewed the relevant transportation provisions. I note that Plan Change 12 was approved by Selwyn District Council on 12 September 2012. This Plan Change addresses Integrated Transport Management and its aim is to provide a more sustainable land transport system, better urban form and to cater for future transport networks. Plan Change 12 introduced some new provisions, and amended existing objectives and policies in the Township Section of the District Plan.
61. Mr Mazey has identified that he had significant concerns with the potential effects of PC24 relocating the Business 2 Zone adjacent to the State Highway. He has noted that the advice from the applicant that they no longer intend to progress the relocation of the Business 2 Zone has removed a number of the significant traffic and transportation concerns. However, Mr Mazey has advised that in the absence of an updated traffic and transportation assessment to support the revised Outline Development Plan he cannot with any certainty be sure that the effects of the revised ODP are appropriate.
62. Mr Mazey has raised a number of issues, which in my reading are capable of being adequately addressed through the hearing process. If this occurs then I consider that PC24, without the B2 zone changing would be able to occur in a manner that is not inconsistent with the relevant transportation provisions in the District Plan. However, given that I am relying on Mr Mazey's assessment I am not able to reach firm conclusions of this at this time.
63. Overall it is considered that PC24, subject to satisfactorily addressing any issues raised in the Section 42A report, can proceed in a manner that will not result in inconsistencies with the objectives and policies of the current District Plan. In addition provided that the PC24 ODP takes precedence over the PC31 ODP there should not be any conflict between these two Plan Changes.

Canterbury Regional Policy Statement

64. Any consideration of the Canterbury Regional Policy Statement is to the document as a whole. It is noted that there is both an existing operative Regional Policy Statement, and a Proposed Regional Policy Statement. The Proposed Regional Policy Statement is at the point where decisions have been made on submissions and appeals (to the High Court) have been lodged. Four appeals on points of law remain.
65. The PC24 area does not fall within the Greater Christchurch area that is the focus of Change 1 to the Regional Policy Statement. Therefore, this is not relevant to PC24.

Operative Regional Policy Statement

66. The relationship of PC24 to the operative Regional Policy Statement is that it must give effect to the Regional Policy Statement. I in completing this report I have considered the entire

Regional Policy Statement. In this report I only address the key provisions. The key chapter is Chapter 12 Settlement and Built Environment. I have identified two key issues for consideration.

67. The first is the appropriateness of the location of the rezoning. Given that the land already has a Living zoning this identifies that the land is considered generally suitable for urban development (albeit at a low density). Given this I find no issues or tension with this proposal and the relevant Regional Policy Statement provisions.
68. The second potential issue relates to the appropriateness of the Plan Change in relation to whether reticulated servicing can be provided. The land proposed to be rezoned Living 1 under PC24 does have constraints with respect to the provision of a reticulated potable water supply. This constraint could be addressed through either not allowing the rezoning to occur until such time as the water is no longer a constraint, or alternatively it could be addressed through retaining the restrictions on any development occurring until such time as a potable water supply is available. The applicant is proposing to not allow any development until water is available. Given this I consider that it is possible for PC24 to be advanced in a manner that does give effect to the Operative Regional Policy Statement. As I have identified no other issues I have not provided a more detailed assessment of other provisions.

Proposed Regional Policy Statement

69. The statutory relationship with the Proposed Regional Policy Statement is that regard must be had to it.
70. The most relevant Chapter to the consideration of PC24 is Chapter 5 Land-Use and Infrastructure.
71. Decisions on the Proposed Regional Policy Statement have been released and appeals to the High Court have been lodged. Only one appeal addresses any provisions within Chapter 5. This is the appeal by TrustPower. This appeal affects Objective 5.2.1 – although the part of the objective the appeal addresses relates to matter (g) which is “avoids adverse effects on significant natural and physical resources including regionally significant infrastructure, and where avoidance is impracticable, remedies or mitigates those effects on those resources and infrastructure”. While this objective is of some relevance with respect to the provision of reticulated servicing and key roading infrastructure the part of the objective subject to the appeal is not of particular importance to the overall consideration of PC24. The focus of the appeal relates to renewable electricity generation activities.
72. Other parts of this chapter appealed are Policy 5.3.9 which again relates to regionally significant infrastructure. Again this policy is of some relevance but the relief sought in the appeal is not likely to alter consideration of this policy under PC24. The appeal seeks to make the provisions more accommodating, particularly for renewable electricity generation activities. The appeal also addresses Policy 5.3.11 which relates to community scale irrigation, stockwater and rural drainage infrastructure. This policy is not relevant to the consideration of PC24.

73. Because there are appeals on provisions that do affect PC24 the matter of weighting to be given to the Proposed Regional Policy Statement is a relevant consideration. Overall, it is considered that even with the appeal of TrustPower considerable weight should be given to the provisions of the Proposed Regional Policy Statement. The appeal of TrustPower seeks to make the provisions more enabling rather than more restrictive.
74. The relevant objectives and policies address the management of growth within and beyond the Canterbury Region. Overall development is sought to be located and designed so that it achieves consolidated, well designed and sustainable growth in and around existing urban areas as the focus for accommodating the region's growth. Objective 5.2.1 seeks to provide for sufficient housing choice to meet the region's housing needs and avoid conflicts between incompatible activities. Objective 5.2.2 seeks to promote integration of land-use and regionally significant infrastructure so that effects are appropriately managed.
75. Overall urban growth is sought to be accommodated in a form that concentrates development within existing urban areas and promotes a coordinated pattern of development and supports urban consolidation. Overall given that the land subject to PC24 is already identified as suitable for Residential development, albeit at a lower density no direct conflicts with the character and location provisions in Chapter 5 are identified.
76. The key issues with PC24 are associated with the provision of a reticulated water supply. The objectives and policies relating to the transport network are also relevant. Relevant transport matters are addressed in the report by Mr Mazey. While Mr Mazey identifies some uncertainties in the effects, overall I do not foresee that these will result in a conflict with the Proposed Regional Policy Statement provisions for transport.
77. Policy 5.3.5 relates to servicing development for potable water, and sewage and stormwater disposal. The policy is:
- "Within the wider region, ensure development is appropriately and efficiently served for the collection, treatment, disposal or re-use of sewage and stormwater, and the provision of potable water, by:
- (1) avoiding development which will not be served in a timely manner to avoid or mitigate adverse effects on the environment and human health; and
 - (2) requiring these services to be designed, built, managed or upgraded to maximise their on-going effectiveness."
78. It has been recognised that currently there is no ability for the proposed Living 1 zoned land to be serviced for potable water. This could potentially result in some tension with this policy. I consider that it is less than ideal to rezone land for more intensive development when it cannot be serviced for potable water. However, due to the inclusion of provisions that mean no development can occur until such time as a water supply is provided this means that it is difficult to identify any adverse effect that would result from the rezoning. On this basis PC24 would not be in conflict with this policy.
79. PC24 could be approved in a matter that does not result in conflict with the provisions of the Proposed Regional Policy Statement. As the appeal of TrustPower seeks to make the provisions of the Proposed Regional Policy Statement more enabling I do not see that the outcome of the appeal would raise any areas where tension would occur between PC24 and the Proposed Regional Policy Statement.

ASSESSMENT OF SUBMISSIONS AND ISSUES

80. A total of 27 original submissions and four further submissions were received to the Plan Change.
81. Subsequent to the submissions being received notice has been received from Selwyn District Council that it has withdrawn its submission to the Plan Change. Two further submissions were lodged to the Selwyn District Council submission. The first is from J Pascoe which opposed the submission and the second is from Mahaanui Kurataiao Limited who supported the submission of Selwyn District Council. The submission by Mahaanui Kurataiao Limited has asked for an assessment of the potential cultural effects on tāngata whenua if the plan change is to proceed. The original submission of Selwyn District Council did not seek this relief nor did it specifically address cultural issues.
82. As further submissions can only be lodged in support or in opposition to original submissions the withdrawal of the original submission effectively means that there is no submission for these further submissions to support or oppose.
83. Notice was received from Foodstuffs that it no longer wishes to be heard in support of the submission. This submission has not been withdrawn.
84. In addressing the submissions I have generally grouped the submissions by topic area. Recommendations to individual submissions are set out in Appendix 4 of this report.
85. For the purposes of assessment the submission points are organised into the following groups:
 - a) Support PC24 (Assessment Group 1)
 - b) Oppose PC24 outright (Assessment Group 2)
 - c) Reverse Sensitivity Issues (Assessment Group 3)
 - d) Effects of zoning change on existing activities - Business 2 Cardale Street (Assessment Group 4)
 - e) Effects of zoning new Business 2 land adjacent to West Coast Road (Assessment Group 5)
 - f) Traffic and transportation matters (Assessment Group 6).

Assessment Group 1: Support PC24

86. A number of submissions support PC24 in its entirety. Other submissions are generally supportive of the change but seek some specific matters be addressed. These specific matters are addressed in the relevant assessment group. The reasons given in the submissions for the support include:
 - there is a need for smaller sections within Darfield
 - progress and mixed-use of land is good
 - the growth of the town is supported
 - the outline development plan demonstrates modern holistic town planning values and land use practices that are economic and acceptable to the community

- the plan change will support economic development in Darfield
- the rezoning of the business land and the residential land is supported
- support is provided providing that the entire proposal is approved if the status quo for the existing Business 2 zone is retained then reverse sensitivity issues would be significant
- the Plan Change can result in a quality development in Darfield
- support plan change but seek some consideration be given to providing green space within the development
- the new business park should be developed within 12 months of the date of rezoning
- the plan change is supported but additional staging rules for the development of the Living 1 zone and traffic rules associated with the Business 2 zone should be incorporated
- support the change in zoning on the submitters land

Evaluation

87. The primary matter for consideration with the land subject to the Plan Change is not whether it is suitable for residential development and inclusion as part of the Darfield Township. I consider that the District Plan already identifies that it is through the existing Living 2A zone (deferred). This zoning means that the existing character of the land is anticipated to change to have a residential rather than rural focus. The key matter for consideration is what form and density of development is appropriate for this land, particularly whether a Living 1 zone is appropriate. I address the issues I consider relevant to determining whether the Plan Change is appropriate or not in the next section when addressing the submissions in opposition.
88. As a result of other recommendations on submissions, changes to the provisions to PC24 are recommended. In addition, it is recognised that the relocation of the Business 2 zone is no longer sought by the applicant. It is for these reasons that the recommendations to the submissions supporting the change are to be accepted in part.

Recommendation

89. The recommendation is that these submissions be accepted in part.

Assessment Group 2: Oppose PC 24

90. A number of submissions oppose PC24 in its entirety. The key reasons given in the submissions for the opposition include:
- other areas of zoned land within the District Plan are more suitable due to the proximity to schools, shops and reserves
 - the plan change will increase traffic problems in an area that has poor visibility high acoustic fence is should not be provided
 - it is not necessary to rezone additional land
 - the plan change does not incorporate reserve land
 - the area will be remote from the main village and will be bordered by commercial areas

Evaluation

91. A number of specific matters raised in these submissions including traffic issues and the potential for an acoustic fence are discussed under other assessment groups.
92. A number of the submissions opposing the Plan Change have identified that there is already sufficient zoned land within Darfield for Residential Development and that this land is not required, particularly the Living 1 zoning. Further, other submitters identified that the location of this land means that the development will not be integrated with the current form and function of Darfield.
93. With respect to considering locational matters now that the applicant is no longer seeking the relocation of the Business 2 zone adjacent to the state highway I consider that the potential adverse effects on the overall form and functioning of Darfield to be significantly reduced. The proposed land is already identified as being suitable for a change in land use from rural to residential development, albeit at a low density. Therefore, it has already been determined that this land can be developed for residential purposes and that the development of this land will to some degree integrate with and be part of Darfield.
94. The proposed Living 1 zone does adjoin the existing township and over time is capable of being viewed as an integrated and coherent extension to the existing township. This is not downplaying the size of the area proposed to be rezoned as Living 1 and the large number of new residential dwellings that could become established. In seeking to achieve integration of this land with the existing township it will be critical to ensure that the development be staged and occurs in a logical manner. The applicant in its submission sought to include new rules addressing staging of the Living 1 zone land. Any concerns I have regarding the location of this land and its effect on the overall form and functioning of Darfield would be significantly reduced with the inclusion of staging provisions.
95. When considering the potential effects on the overall character and amenity of the township and the wider Darfield environment the District Plan does already recognise that the character of the area is proposed to change from that existing. The land is already zoned Living 2A (deferred). The development of dwellings in accordance with this zoning would make the character of the area more urban, even if there were no change to the Living 1 zone. While a one hectare density is quite low for a residential area the area would have a predominant character and would present as a low density residential area. Therefore, in my view it cannot be considered that adverse amenity and character effects will automatically result should this area be rezoned. The provision of a Living 1 zone will certainly mean that the character will be more intensive and will present as part of the urban environment, but this is not necessarily an adverse effect, it is a change.
96. I do have some concerns regarding the extent of land proposed to be rezoned and the limited amenity considerations evident within the revised Outline Development Plan. To illustrate there are very limited reserves and cycle links shown. To a degree the reason for this is because the applicant was previously given advice by the District Council that additional reserve areas in this location were not required. Mr Rykers has reviewed this position and now considers some additional reserve and open space areas are needed.

This is addressed later in this section of the report. I record here that to ensure appropriate integration of this development within Darfield and to provide an appropriate amenity and quality environment I support the recommendations of Mr Rykers.

97. With respect to the overall quantum of land proposed to be rezoned I do share the concerns of submitters relating to the overall quantity of zoned but undeveloped land in Darfield. If looked at purely as to whether the Living 1 zoned land is needed – if based on the amount of existing zoned but undeveloped land then the answer would likely be no. However, it must be recognised that just because land has been zoned as suitable for residential purposes this does not necessarily mean that it will be developed in a timely manner. In some situations already zoned land may not be developed over the current District Plan period.
98. I have not had any discussions with existing landowners of zoned but undeveloped land within Darfield as to their intent or desire to develop the land in the near or distant future. However, based on my experience of working in the planning field for over 20 years I know that there are multiple and complex factors involved in a parties decision of whether to develop land or not.
99. Consideration of whether the additional land is “needed” is a challenging resource management issue. The District Plan other than expressing a preference for development to occur in already zoned areas does not contain objectives and policies that seek to restrict the further rezoning of land if it is found to be appropriate for the purposes. I have found no reference in the District Plan that would indicate that additional development opportunities should not be provided until existing areas are completed. Therefore, on this basis as a planner while I have sympathy for the position expressed by the submitters as to the quantum of, and need for, a Living 1 zone in this location, I can find no guidance in the District Plan that this should be a ground for declining this Plan Change.
100. With respect to the submissions being concerned that insufficient reserve land is proposed I note this is addressed in the report of Mr Rykers. Mr Rykers report is attached in Appendix 6 and I rely on his assessment in undertaking my evaluation.
101. Mr Rykers in his assessment addresses the provision of reserves and open space within the PC 24 area. Mr Rykers has recognised that the overall lack of reserves proposed is likely a result of previous discussions between the applicant and the Council. He has recognised that he has reviewed the position previously advised and considers that additional open space and reserve areas are required to provide a quality development and to meet the needs of the future community that will be housed in the area if the plan change is approved.
102. Mr Rykers identifies that the following should be incorporated within the Outline Development Plan:
 - a) an extension to the existing Pemberton Reserve of around and additional 1100 m².
 - b) Provision of a centrally located reserve within the proposed Living 1 zone of 3000 m². The preferred location is at the junction of the collector and local road indicated on the ODP.

- c) Additional links within the area to form a connected pedestrian/cycle network which should be identified on the ODP.
 - d) Provision made for future servicing of the water race adjacent to the northern boundary of the ODP area by way of a continuous strip to provide future access to the water race as well as providing an amenity corridor. The area sought is a minimum of 6m in width and would be a Local Purpose Reserve for water race purposes.
 - e) No specific reserve/open space areas (apart from those required for the pedestrian/cyclist network and the surface water race) need to be provided within the Living 2A zone.
103. If the matters identified by Mr Rykers were included within the ODP then this may overcome the concerns raised by the submitters relating to the lack of reserves.
104. I support the changes to the ODP sought by Mr Rykers. Providing the additional reserve areas will contribute positively to the amenity and character of the Plan Change area and will assist in promoting the social well-being of people and communities. I note Mr Rykers has illustrated the areas for the proposed reserves on a copy of the Outline Development Plan attached to his report and I support these changes. In addition, in order to incorporate the matters of ensuring linkages within any future subdivision and the proposed reserve areas and to address the access to the water race I consider that these matters should be included within the ODP so that they will not be missed at the time of any subdivision.
105. Those submissions opposing the Rezoning relating to the Business 2 zone are addressed under a different assessment group. However, should the Business 2 Zone not be changed as a result of this Plan Change then a number of the submissions opposing PC24 should be accepted in part.

Recommendation

106. The recommendation is that the submissions opposing PC24 be accepted in part.

Assessment Group 3: Reverse Sensitivity

107. This grouping of submissions addresses reverse sensitivity effects and seeks changes to address particular issues identified. Key matters raised in the submissions include:
- the Darfield Gun Club/Darfield Shooting Centre is located on the corner of Creyke and Telegraph Roads and has existed on the site for over 30 years and seeks that subdivision of the PC24 area must only go ahead conditional to no noise complaints or restrictions occurring on shooting activities.
 - The proposed acoustic fence could be visually unappealing seeks consideration of blocking sound through other means.
 - If the entire plan change is not approved then reverse sensitivity effects could result with the Living 1 zone being located so close to the Business 2 zone.

Evaluation

108. Specific consideration of the potential for reverse sensitivity effects in the application and the submissions has been completed by Russell Malthus. Mr Malthus's report is attached in Appendix 6. I rely on Mr Malthus's report in undertaking my evaluation.
109. The key issue to consider is to ensure that the proposed rezoning should not result in inappropriate adverse effects on nearby land uses. In this situation there are two key areas of concern to the submitters. The first is the relationship between the Plan Change area and the Shooting Facility, and the second are the potential effects relating to the existing Business 2 zone.
110. Within Mr Malthus's report he has made a number of his recommendations to the Business 2 zone provisions and notes that these would only be needed if the Commissioner's decision was to change the existing Business 2 zoning as part of this plan change. Mr Malthus recognises that the amended ODP provided by the applicant no longer seeks any changes to the Business 2 zone.
111. To address any actual or potential effects associated with the new zone interface that will occur between the existing Business 2 Zone and the proposed Living 1 Zone Mr Malthus considers that a minimum setback of 40 metres should apply between the B2 boundary and any dwelling in the Living 1 zone. This is consistent with the zone buffer shown in page 1 of the notified ODP Planting Concept Plan. I consider this should either be shown on the ODP or a new rule inserted to provide for this setback. This is included in my recommended provisions.
112. With respect to addressing the interface between the Living 1, Living 2A zones and the Rural Outer Plains zone Mr Malthus identifies that generally the existing rules are appropriate. However, he considers that at least a 20 metre buffer should be provided between dwellings in the proposed living zones and the closest boundary of the Rural Open Plains zone. He also considers that the retention of shelter belts and roadside tree plantings to be beneficial.
113. I support the inclusion of the separation buffer recommended by Mr Malthus. I have given consideration to whether it is appropriate to apply this buffer to the Living 2A zone given that this zoning is existing. The current rules are that development of the L2A zoning is deferred until such time as an Outline Development Plan is prepared. The identification of buffer areas and specific setbacks are matters often addressed on Outline Development Plans. The recommended setbacks could be accommodated by inserting a note on the Outline Development Plan or through the insertion of a new rule. I consider the recommended setbacks can be provided in a manner that does not significantly impact on the ability for the land to be developed or affect the overall yield of the development. With respect to the retention of shelter belts and roadside trees I would expect these to be shown on the ODP or on a revised Landscape Concept Plan.
114. Mr Malthus has considered potential reverse sensitivity effects on the Darfield Shooting Centre. He has recognised that in his view the noise levels would exceed the District Plan limits at the Living 2A zone boundary on Creyke Road and Telegraph Road. As I understand it the noise issue he has identified is an amenity issue rather than a health issue. He notes

that either a 500 metre setback from the notional boundaries of new dwellings should be provided or an acoustic barrier be incorporated into any future subdivision and dwelling development to attenuate noise. The development of an acoustic barrier would be designed on an individual property basis.

115. I have provided wording that would enable the setback, or the noise mitigation option to be provided. I recognise that a 500 metre setback potentially affects a considerable area of the Living 2A zoned land. There are implications for the future development of this zone with the imposition of such a requirement. These implications and the costs and benefits should be carefully considered. I appreciate that the potential risk of future complaints relating to the operation of the Darfield Shooting Facility is a real concern.
116. Given that the Living 2A zoning exists I have considered whether such mitigation could be required as part of this Plan Change. While the Living 2A zone is existing within the District Plan it cannot be developed without an Outline Development Plan being inserted into the District Plan. Therefore, I consider that this matter can validly be considered in response to this Plan Change. However, given the potential implications this may have on the future development of the Living 2A zone I anticipate that the practical implications of the suggested mitigation may be something that the applicant wishes to address at the hearing.
117. The other potential reverse sensitivity matter identified by Mr Malthus relates to the Waste Water Treatment Plant. I note that there are no submissions lodged with respect to water servicing matters, including wastewater servicing. However, I have addressed this matter here as it does relate to reverse sensitivity. The management of wastewater is a matter addressed in the application and the ability to service any proposed development for wastewater is an important consideration as to whether the plan change is appropriate and promotes the sustainable management of natural and physical resources. Issues with respect to wastewater have also been addressed by Mr England in his report.
118. The applicant has identified two options for wastewater management being on-site individual systems or a community system. I note that if on-site treatment is utilised both Mr Malthus and Mr England have identified that the size of sections to be created in the Living 1 zone would need to be larger than the 650m² the current plan provisions allow. I also note that if a community system is to be developed that both have sought confirmation relating to the area of land proposed to be set aside for wastewater treatment.
119. With respect to managing potential reverse sensitivity effects of any potential wastewater treatment area Mr Malthus has identified that a setback of between 25 and 150 metres from the perimeter of a spray disposal area could be required depending on the e-coli concentrations in the waste stream, the design of spray systems, and wind conditions. Mr England has also identified that potential reverse sensitivity issues are of concern. Mr Malthus has suggested that the applicant may wish to provide additional information on this.
120. I consider that it is possible for a setback to be included on the Outline Development Plan for the PC24 area or a setback rule be provided.

Recommendation

121. The recommendation to Assessment Group 3 is that those submissions be accepted.

Assessment Group 4: effects of zoning change on existing activities

122. This grouping of submissions addresses specific issues associated with the rezoning of land. In particular the proposed rezoning of the existing Business 2 zone near Cardale Street and relocating that zone area adjacent to West Coast Road. Key issues identified are:
- the proposed rezoning will restrict any future development and use of existing land and buildings that are currently located with an appropriate zone
 - the rezoning will devalue properties
 - the rezoning will adversely affect any future sale of the properties
 - if the entire rezoning and relocation of Business 2 zone does not occur and only the residential component is approved potential reverse sensitivity effects on existing businesses could result in would be inappropriate
 - it is not appropriate for existing businesses to have to rely on existing use rights to operate if the Business 2 zone is relocated
 - there is not general support for the relocation of the Business 2 zone
123. Most of the submissions lodged on this topic have been submitted by landowners or current business operators within the existing Business 2 zone near Cardale Street. The primary focus of the submissions is the implication of the proposed change in zoning from Business 2 zone to Living 1 on existing business operators and landowners.

Evaluation

124. There are serious planning implications when a rezoning is proposed on an individual's land without their support. In this situation changing the zoning from Business 2 to Living 1 would leave current business operators in a position where they are reliant on existing use rights in order to continue their operations. Relying on existing use rights means that there would be limited opportunity to alter the scale, intensity or character of the activities within the zone without a resource consent being required. Given that the proposed zoning will be Living 1 I consider it may be difficult for businesses to expand in a manner that is consistent with the objectives and policies of the Plan applying to a Living 1 zone. In addition it is likely that it would be difficult for a business activity to achieve the amenity and quality of environment desired for a Living 1 zone. I consider that the change in zoning from Business 2 to a Living 1 zone would significantly impact on existing business operators.
125. I note that the applicants have advised that they are no longer pursuing the rezoning of the existing Business 2 zone and the relocation of that zone to adjacent to West Coast Road. My understanding is that change is in response to the concerns raised by submitters. Given that the applicant no longer wishes to pursue change in the Business 2 zoning I have not provided further evaluation of the implications that changing the Business 2 zoning would have on existing businesses.
126. In my view with the zoning changes to the Business 2 zone no longer being advanced the key consideration is to ensure that any actual or potential effects associated with enabling a Living 1 zone adjacent to an existing Business 2 zone, particularly reverse sensitivity effects, are adequately addressed. These matters have been addressed in the section of this report dealing with reverse sensitivity and are specifically addressed in the report by Mr Malthus.

Recommendation

127. The recommendation to Assessment Group 4 is that those submissions seeking the existing Business 2 zone not be changed to a Living 1 zone be accepted.

Assessment Group 5: Zoning New Business 2 Land

128. This grouping of submissions addresses matters specific to the rezoning of Business 2 land adjacent to the West Coast Road. The matters addressed include:
- adverse retail distribution effects may result
 - the retail impact assessment supplied by the applicant makes a number of unsubstantiated assumptions and has not provided sufficient information to address potential adverse retail distribution effects
 - potential adverse cumulative effects are not adequately considered
 - the plan change may not enable Council to fulfill its statutory functions in managing the nature and level of business activity in an integrated manner
 - the zoning change may affect the existing town centre
 - the transfer of the Business 2 zoning is logical and would create new opportunities for businesses to come to Darfield. It will also rectify the current mixed-use zoning present
 - the business zone area will create noise, lighting and traffic problems for the residential area.
129. The submissions are mixed in the outcome sought. Some of the submitters are strongly supportive of relocating the Business 2 zone while others are strongly opposed to the change. It is noted that some of the submissions in support were from landowners that would be affected by the change in zoning.

Evaluation

130. As identified earlier in this report I consider that the relocation of the Business 2 zone adjacent to West Coast Road had the potential to create the most significant effects associated with the development. These effects would have affected the overall form and function of the Darfield township, and may have impacted on the form and function of the existing commercial area. The current location of the Business 2 zone is not an area of demand for retail activities as it is away from the main through traffic of Darfield and is not a high volume pedestrian area. The relocated Business 2 zone would potentially provide a more desirable location for retail and service industries to locate as they would be in an area of high visibility from the State Highway.
131. I have not provided any further evaluation of the relocation of Business 2 zone as the applicants have advised that they no longer wish to proceed with this part of the plan change proposal. I recognise that some submitters may still wish to address the Commissioner on this topic at the hearing and the ability to rezone this land is still part of the original application.

Recommendation

132. The recommendation to Assessment Group 5 is that those submissions opposing the relocation of the Business 2 zone be accepted and those submissions supporting the relocation of the Business 2 zone be rejected.

Assessment Group 6: Traffic matters

133. This grouping addresses traffic matters and the matters raised in submissions includes the following:

- any increase traffic can be managed by the current proposed new roading
- the proposed roading pattern encourages good connectivity with Darfield and the surrounding rural area
- adequate road works are needed because of the number of residential sections proposed
- the movement of traffic at intersections needs to be carefully considered
- management of traffic needs to be carefully managed
- the roading layout should align with the Darfield Integration Plan.

134. Specific consideration of the traffic and transport related matters in the application and the submissions has been completed by Andrew Mazey, Transportation Asset Manager for the Selwyn District Council. Mr Mazey's report is attached to this report in Appendix 6. I rely on Mr Mazey's report in undertaking my evaluation.

Evaluation

135. Mr Mazey has identified that he has had difficulty in reaching a firm conclusion regarding the transportation effects and impacts of PC24 because the traffic and transportation assessments provided with the application are no longer reflective of the revised ODP. Mr Mazey has identified that he did have significant concerns with Proposed PC 24, particularly with respect to the relocation of the B2 Zone adjacent to West Coast Road. The removal of this aspect of the Plan Change has alleviated a number of his concerns.

136. The concerns he has raised in his report relate to uncertainty in the potential effects of the revised ODP. In considering the matters raised by Mr Mazey I am of the view that if clarification of the issues he raises is provided by the applicant at the hearing then a number of the issues raised in the submissions will also be overcome. Mr Mazey's report addresses in detail the matters where he considers clarification or more detail is required. I have briefly summarized these matters which are:

- There are concerns with the Mathias Street connections and intersection performance, including both at Cardale Street and SH73.
- There is uncertainty as to how any revised network and its connections will interact to the existing network.
- There is a lack of certainty as to what is proposed (or needed) with respect to the upgrading of the existing SH73/Mathias Street intersection and the intersection of Mathias/Cardale Street.

- There is a lack of certainty as to the overall upgrading of Creyke Road, and the intersection of Creyke Road and SH73.
 - There is a lack of clarity as to how the frontages of Telegraph Road and Creyke Road may develop based on access and amenity aspects.
 - More emphasis needs to be provided for walking and cycling networks on the ODP to reflect how existing and proposed reserves will be linked together.
 - PC24 and PC31 need to be reconciled so that inconsistencies do not result.
 - Clarification is needed on the internal roading hierarchy.
 - Clarification is needed as to why a possible future road connection is shown between the L2A area and an Outer Plains zoned area south of SH73 when there is no intention for the Outer Plains area to be further developed.
 - Staging of development in the Plan Change area is needed.
137. At this time Mr Mazey is not confident that the traffic and transportation effects are appropriate. As I am relying on his assessment for these matters I also cannot reach a conclusion at this time that the Plan Change is appropriate with regard to traffic and transportation matters. I consider that the applicant should be able to provide clarification of the matters raised by Mr Mazey at the hearing. In reading Mr Mazey's report I am confident that if an updated traffic and transport assessment were provided along with providing more detail on the ODP then the issues raised could be satisfactorily addressed.

Recommendation

138. The recommendation to Assessment Group 6 is that the submissions be accepted in part.

OTHER RELEVANT MATTERS

139. There are three other matters I wish to draw to the attention of the Commissioner, one relates to servicing matters, the second to potential contamination issues and the final matter being geotechnical issues.
140. In addressing servicing matters some reference has been made earlier in this report relating to wastewater and potable water. I note that the only submission that addressed servicing matters has been withdrawn. However, ability to service the proposed Plan Change is a key consideration as to whether the rezoning is appropriate and whether it will promote the sustainable management of natural and physical resources.
141. Consideration of servicing matters has been addressed in a report prepared by Murray England. Mr England is the Asset Manager Water Services for the Selwyn District Council. His report considers stormwater, potable water, wastewater and financial contributions. I rely on his assessment in undertaking my evaluation and in reaching my conclusions.
142. With respect to stormwater Mr England notes that stormwater is to be disposed of to ground and he considers this is appropriate.

143. With respect to potable water it is recognised that the provision of potable water is a key constraint to the development of this land. Mr England has identified that the increase in density proposed as part of this Plan Change (the Living 1 Zone) cannot be serviced at this time by the existing water supply network due to capacity limitations. While an additional water supply has been provided it is my understanding that this does not include the capacity to provide for an increase in density of development on the Plan Change area. When considering the appropriateness of rezoning additional areas of Living 1 land (above the existing zoned but undeveloped areas) I am of the view it is important that any rezoning this land does not artificially constrain or adversely impact on the ability for any existing zoned Living 1 or similar existing zoned land within Darfield to be developed through seeking to use all of the available water for the new Living 1 zone.
144. Mr England has identified that without having an adequate water supply no development should be able to occur on the Plan Change area. He states that the applicant should be required to either defer development until capacity allows further water connections or the applicant would need to supply an additional water source to Council's satisfaction.
145. It is recognised that the Plan Change seeks to include rules that ensure that no development can take place until a potable supply of water can be provided. In my view it is not ideal to rezone land that cannot be serviced for potable water. However, I recognise that providing no development can occur until water is provided that no adverse effects will result. Providing that the rules are included within the Plan Change any issues associated with water can be adequately managed.
146. Turning now to wastewater Mr England has identified that the applicant is proposing two options; one being individual onsite sewage treatment and the second being a reticulated system to a new treatment plant. If onsite sewage treatment is provided then it is likely that any Living 1 zone sections created will need to be larger than the 650m² that the current zoning allows. This will potentially affect the overall yield of the plan change area. If a reticulated system is provided Mr England has identified that the Council is not comfortable with the specific system that the applicant is proposing and at this time the Council is not in a position where it would be prepared to take over the system.
147. If a system is to be provided then it will be necessary for an adequate treatment area to be accommodated. This could either be provided on the application site, or there is a possibility that this could be located on the Selwyn District Council owned land which is opposite the application site on Creyke Road. Mr Malthus has addressed possible setback areas from any treatment facility.
148. Importantly for consideration of this Plan Change Mr England is of the view that it is feasible that the subject land can be adequately serviced for wastewater. Consideration of the best option can occur at the time of subdivision. At the time of this Plan Change it is important that the OPD not foreclose any option and I consider it important that any area identified on the ODP be of a sufficient area to accommodate any wastewater system to service the potential development.

149. The next other matter to be considered is whether there are any potential land contamination issues. The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 ("the NES"), has come into effect following the notification of the Plan Change. The applicant has undertaken a preliminary assessment and this has been subject to a peer review. The preliminary assessment identifies that at the time of subdivision there will be a need for a more detailed assessment to be undertaken. There is no need to incorporate any specific provision to address this matter within the Plan Change. The National Environment Standard already contains appropriate provisions and these apply irrespective of any provisions in a District Plan.
150. The final matter I wish to address is the geotechnical suitability of the site. The geotechnical evaluation provided in support of the application has been reconsidered by Golder Associates in light of the requirements of the CERA Recovery Strategy. The information provided by Golder Associates has been reviewed by Geotech Consulting Limited. The conclusion of the Geotech Consulting Report is that, "The number of tests undertaken is less than that suggested in the guidelines (0.2 per hectare and minimum of 5), but there is a degree of judgment allowed for suitably qualified and experienced geotechnical engineers as to the number and type of investigation depending on the site conditions. For this plan change stage, and for the site on this particular geological setting, we consider Mr Anderson of Golder Associates has exercised his judgment appropriately and that the site testing is sufficient to adequately demonstrate that there are no substantive geotechnical issues and minimal to no liquefaction hazard. As such we consider that the report complies with the intent of the CERA guidelines." Given this no issues of concern relating to the geotechnical suitability of the land associated with the Plan Change.

FINAL STATUTORY ASSESSMENT

151. Overall I consider that PC24 is likely capable of achieving the relevant objectives and policies of the Selwyn District Plan. It does have regard to the Proposed Regional Policy Statement. It can also give effect to the operative Regional Policy Statement. Providing that the issues raised in the Section 42A reports are adequately addressed at the hearing then the Plan Change may be capable of promoting the sustainable management of natural and physical resources.

OVERALL CONCLUSION AND RECOMMENDATION

152. At this time there remains uncertainty over the traffic and transportation effects, whether sufficient land is set aside for wastewater treatment and what form of mitigation is appropriate in relation to managing reverse sensitivity effects associated with the Darfield Shooting Centre. In addition some modification is necessary to the ODP and the potential rules.
153. Providing that the above matters are satisfactorily addressed then it is likely that PC24 could be approved with the following modifications to that notified:
- 1) The revised ODP be amended as follows:

- a) an extension of 1100 m² be provided to the existing Pemberton Reserve
 - b) a centrally located reserve of 3000 m² be provided within the Living 1 Zone in the vicinity of the junction of the collector and local road
 - c) pedestrian and cycle links are provided within the ODP area to connect the reserve areas and provide for integrated movement of people and cycles within the Plan Change area
 - d) a 6 m wide strip along the northern boundary of the ODP area adjacent to the existing water race be provided
 - e) an updated landscape concept plan addressing the revised ODP area be provided
 - f) the identification of a possible future roading link between the plan change area and any adjacent land zoned Outer Plains be removed and note 3 be deleted from the ODP
 - g) a minimum setback of 40 m apply between the boundary of the Business 2 zone and any dwelling to be erected in the Living 1 zone
 - h) a setback of at least 20 m be provided between any dwellings in the Living 1 zone and the closest boundary of the Rural Open Plains zone
 - i) an appropriate setback (between 25-150m) be provided between the wastewater treatment and disposal area shown within the Living 2A zone and any dwelling to be erected within the PC24 area
 - j) a setback of 500 m be provided between the Darfield Shooting Centre and the notional boundary of any dwelling to be erected within the Living 2A zone
 - k) a staging plan be introduced and reference to the staging plan incorporated into the ODP
 - l) the limitation on individual property access is other than those existing along the Telegraph Road and Creyke Road be removed.
- 2) Other changes may include:
- 1) Any changes necessary to address the issues raised by Mr Mazey.
 - 2) Any change in the area shown for wastewater treatment and disposal to provide for the yield from the full development area.
 - 3) Any necessary changes to ensure consistency between PC 24 and plan change 31.

RECOMMENDED PROVISIONS

154. Recommended provisions are identified in Appendix 3. The provisions recommended have used the provisions sought by the applicant in the Plan Change application as the starting point. A number of changes are recommended to take into account matters identified in my report. In particular any rules relating to the change in Business zoning have been removed.
155. A summary of the key matters recommended that may not be clear from my evaluation in this report are provided below. I note that in the Plan Change Application the ODP to be inserted was referred to as Appendix 37 – as a result of other plan changes the appendix reference should be to Appendix 41.

Policies and explanations.

156. I have not included the changes introduced to the policies as part of PC31. I have reviewed the submissions received to PC31 and not that some submitters have requested changes to Policy 4.3.28 (4.3.22 as referenced in the PC24 documentation). This hearing is being held prior to the hearing for PC31. Therefore it is not certain what the final wording for the policy may be under PC31. For this reason I have not sought to include changes to the proposed rewording introduced in PC31.

Rules

157. It is proposed to retain the suggested rule relating to development of land within the Living 1 zone and the Living 2A zone until such time as water is available. I have recommended that separate rules be provided for the Living 1 zone and the Living 2A zone. This is to be reflective of water likely being available for the Living 2A zone, but not yet being available for the Living 1 zone. In addition I am suggesting some changes to reflect the possible situation where water is available for only part of the zone. If this occurs any deferral should only be removed from that part where water can be provided.
158. I have proposed to insert a staging rule into the subdivision provisions.

APPENDIX 1: QUALIFICATIONS AND EXPERIENCE

1. My name is Jane Whyte. I hold the degrees of Bachelor of Arts and Master of Regional and Resource Planning from Otago University. I am a full member of the New Zealand Planning Institute. I have over twenty years planning and resource management experience.
2. I am a director of RESPONSEPLANNING Consultants Limited established in 2004 specialising in resource management matters. I began resource management practice in 1992. Between 1992 and 1997, I held the position of planner for Ruapehu District Council being jointly responsible for the preparation of the Ruapehu District Plan and all Plan administration matters. Following this, between 1997 and 2000 I worked as an associate with Gabites Porter Consultants. Finally, between 2000 and 2003 I held various positions for the Banks Peninsula District Council, firstly as a Senior Planner, and then for a period of 18 months as Environmental Services Manager.
3. During my professional planning career I have been involved in the development of numerous district plans, plan changes and private plan changes across New Zealand. This includes the: preparation of district plans, providing section 42A reports, acting as a commissioner to determine submissions, participating in and leading plan appeal negotiations and mediations, and providing expert evidence in front of the Environment Court. Further, I have administered a number of proposed and operative district plans. In addition, over the years I have prepared many publicly notified and non-notified resource consent applications.
4. I am engaged by Selwyn District Council (SDC) to prepare this section 42A report. My involvement with this application started just prior to the consideration of the Plan Change at the Council meeting and prior to the public notification of Proposed Private Plan Change 24. To date I have been involved in a number of discussions with the applicant and SDC officers.
5. I am familiar with the site and the surrounding area. I have undertaken a site visit.
6. For the sake of completion, I note that I have read the Environment Court's Code of Conduct for Expert Witnesses, and agree to comply with it. The issues addressed in this report are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed. Further, within my report I record the opinions of others that I rely upon in order to make my assessment.

APPENDIX 2: HISTORY TO PROPOSED PLAN CHANGE 24

1. A draft application had been provided to the Council for comment on 24 May 2010. Silver Stream Estates Limited lodged their formal privately requested plan change with the Council in September 2010. An amended application was provided to the Council in November 2010. The Selwyn District Council considered the Plan Change application in May 2011 and the application was publicly notified and submissions and further submissions received.
2. An amended Outline Development Plan (ODP) was received by the Council from the Plan Change applicant in October 2012. The key change between the ODP in the notified application and the revised ODP is that the Business 2 zone is no longer proposed to be relocated. The current zoned Business 2 zoned area would remain as in the District Plan unchanged. A copy of this revised plan is attached to this Section 42A report so that submitters can see the changes.
3. In addition to a revised ODP additional information was also received from the applicant following the close of submissions. This information included:
 - a. An updated letter from Beca Consultants regarding potential Wastewater Treatment relating to the Plan Change site;
 - b. An assessment under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES) by Golder Associates. This has been subject to a peer review by Tonkin Taylor and Golder Associates has provided a response to the peer review.
4. A resource consent application to enable the subdivision of approximately 50 lots on part of the plan change site was processed by Selwyn District Council. The application was declined and was subject to appeal to the Environment Court, however, this appeal has subsequently been withdrawn. A wastewater discharge consent has been obtained from Environment Canterbury for the discharge of wastewater from the 50 lots.
5. The purpose of the plan change request was to *"remove the deferral across the area as well as provide for the rezoning of the land to ensure that the most efficient zoning result can be achieved."* The request sought to rezone 113.4 hectares of land currently zoned Business 2 and Living 2A Deferred. The site is located on the south eastern boundary of the existing township of Darfield. The site is bordered by West Coast Road (SH73), Mathias Street, Cardale Street, Telegraph Road and Creyke Road.
6. The existing deferred zoning relates to both the provision of a water supply and the inclusion of an Outline Development Plan (ODP) within the District Plan.
7. The original plan change application sought to provide for up to 550 Living 1 zoned properties, 45 Living 2 zoned properties. In addition the Plan Change sought to relocate an area of the existing Business 2 zoned land to an area adjacent to State Highway 73. The amended ODP now no longer seeks to change the existing Business 2 zoned land. The Plan

Change area shown on the latest ODP no longer includes that area of land nearest the State Highway.

8. The applicant noted that any development resulting from the plan change will occur in stages but that will be determined at subdivision consent stage and it was not considered that a detailed staging plan is necessary at the time of this Plan Change.

APPENDIX 3: RECOMMENDED PROVISIONS

The changes below do not reflect the changes proposed to the provisions, particularly Policy B4.3.28. There have been submissions lodged seeking the wording of the policy from that notified in PC31 to be changed. Therefore, the final outcomes of that policy are unknown. Therefore the changes to the existing policy have been recommended.

Issues, Objectives and Policies

Changes are shown as underlined and or struckthrough

Policy B4.3.28

To provide for mixed densities in the Living X zone, and rural residential development around the township in the Living 2A (Deferred) zone to a minimum average area of 1ha, and in the Living 2A1 zone to a minimum average area of 2ha, subject to the following:

- That all new allotments are able to be serviced with a reticulated potable water supply.
- That outline development plans have been incorporated into the Plan for the coordinated development of four ~~five~~ identified areas of land in the Living 2A zone, the Living X zone and part of the Living 2 zone to address roading, reserve, and pedestrian/cycle linkages;
- Where applicable, provision has been made to address any reverse sensitivity issues.

Explanations and Reasons

As of April 2004, the Darfield water supply system was at capacity, and pending the development of a new system and the obtaining of the necessary resource consents, further subdivision in the Deferred Living X and 2A zones is unlikely to be possible. The scope for further development, and the likely rate of re-subdivision in the Living 2A1 zone, is such that it is less affected by this constraint.

The Living X zone provides for a range of allotment sizes as may be nominated by the developer, but not to a lesser area than specified in the Living 1 zone. Development in the Living X zone is also subject to deferral pending the incorporation of Outline Development Plans.

The Living 2A1 zone applies to land already substantially subdivided into lots of between 2 and 4 ha, generally bounded by Clinton, Bangor and Creyke Roads. This degree of fragmentation is such that requiring an outline development plan is unrealistic. However, the zone already has a distinct low density rural residential character and as generally uncoordinated internal roading pattern. Having regard to this, and the expectations of existing residents, the Council does not wish to allow further subdivision below an average area of 2ha without consultation with the resident community. Given the existing subdivision pattern and low density allowed in the zone, deferred status is not considered necessary for the Living 2A1 zone.

For the Living 2A Deferred zone, deferred zoning also applies, to enable the incorporation of outline development plans for each of the four ~~five~~ areas labelled 1. 2. 4 and 5 ~~1- 5~~ in Appendix 25. The purpose of the outline development plans is to ensure the provision of through roading patterns where necessary; preventing frontage access for properties to state

highways and managing the location and number of new access roads; staging of development for provision of services; and cycle/ pedestrian links and reserves; and to address reverse sensitivity issues.

In some cases, the presence of business zones, utilities, arterial roads (noise) or plantations adjacent to future residential developments will necessitate provisions of setbacks or other methods to mitigate reverse sensitivity effects and to avoid operation of existing activities being compromised. With the exception of a large block of land north-east of the Township (bounded by Homebush and Kimberley Roads, (Area 4, Appendix 25), outline development plans will have to be added by variation or plan change. However the Living 2A and 2A1 zonings signal that subject to constraints being addressed, these areas are suitable in principle for low density residential development.

Rules

1.4 Deferred Living Zone –Darfield

1.4.1 Development of the land identified within the Darfield Outline Development Plan within Appendix 41, and zoned Living 2A is to remain deferred until such time as a Council resolution is passed confirming the availability and capacity of a water supply for the zone. If water is available to only part of the area then the deferred status is will remain on the other areas.

1.4.2 Development of the land identified within the Darfield Outline Development Plan within Appendix 41, and zoned Living 1 is to remain deferred until such time as a Council resolution is passed confirming the availability and capacity of a water supply for the site, or part of the site. If water is made available to only part of the area then the deferred status is will remain on the other areas.

Insert the following rule within Part C, 5, Living Zone Rules – Roading Permitted activities – vehicular accessways (note Mr Mazey is recommending this rule is not necessary)

5.2.1.8 Any vehicular access way does not provide access onto Creyke Road from land within the Appendix 41 Darfield Outline Development Plan area unless indicated as an access on the Appendix 41 outline development plan.

5.2.4 Any activity which does not comply with any of the rules in 5.2.1 and 5.2.1.8 shall be a non-complying activity.

Amend rule 12.1.3.8⁵ within Part C, 12 Living Zone rules – Subdivision.

Darfield

12.1.3.9 No subdivision of land in any of the areas labelled Areas 1, 2, 4 and 5 'Areas 1 5' as shown in Appendix 25, shall take place until:

⁵ This is referred to as Rule 12.1.3.8 in the application documentation. The numbering of the rules has been changed

- a) A potable water supply is available which is capable of serving the lots within the subdivision; and
- b) An Outline Development Plan addressing those matters identified in the explanation and reasons to Policy B4.3.22⁶, Darfield Specific Policies has been incorporated into the District Plan for the area as identified in Appendix 25 within which the subdivision is proposed.

(note the form of this rule is affected by Plan Change 31)

12.1.3.12 Upon the removal of any deferral over the land contained within the Appendix 41 Darfield Outline Development Plan, any subdivision shall be in general accordance with the layout and content of that Outline Development Plan for that area.

12.1.3.13 Any development of the Living 1 zone the Darfield Outline Development Plan within Appendix 41 shall occur in accordance with the Darfield Staging Plan in Appendix 41

- a) Development shall commence with the area Shown as Stage 1. Stage 1 shall commence with the development of no more than 100 lots (the first release). The balance of Stage 1 shall not commence until 80% of the first release has been developed and sold.
- b) Development of the land shown within Stage 2 on the Darfield Staging Plan shall only occur at such time that 80% of the residential allotments within the Stage 1 area have been developed and sold.
- c) Development of the land shown within Stage 3 on the Darfield Staging Plan shall only occur at such time that 80% of the residential allotments within the Stage 2 area have been developed and sold.

12.1.3.14 For the subdivision of Living 1 and Living 2A zoned land shown in Appendix 41 Darfield Outline Development Plan, any subdivision plans submitted to the Council shall be accompanied by a landscape plan and planting plan detailing plantings to be undertaken and reserve areas to be established. Landscaping and planting of reserve areas shall be established generally in accordance with the Landscape Concept Plans in Appendix 41.

12.1.3.15 Prior to the development of land for Living 1 purposes along the boundary with the Cardale Street Business 2 zone a building restriction area shall be established so that no residential building can be erected within 40 metres of the Business 2 zone boundary.

12.1.3.16 Prior to the development of land for Living 1 and Living 2A purposes along the boundary of a Rural Outer Plains zone a building restriction area shall be established so that no residential building can be erected within 20 metres of the Rural Outer Plains zone boundary.

12.1.3.17 Prior to the development of land for Living 2A a building restriction area shall be established so that no residential building can be erected within 500 metres of the Darfield Shooting Centre unless acoustic barriers are incorporated into any subdivision design that will attenuate noise from the Darfield Shooting Centre to

⁶ Within the rule Policy B4.3.22 is still referred to when the amended reference is now Policy B4.3.28

55 SNL at any residential building site. The design of any acoustic barrier must be supported with certification by an appropriately qualified and experienced acoustician.

12.1.3.18 Prior to the development of any land shown in Appendix 41 Darfield Outline Development Plan if a wastewater treatment plan is to be established within the Living 1 zone or Living 2A zone within Appendix 41 a building restriction area shall be established so that no residential building can be erected within 25-150 metres of the Waste Water Treatment Plant or Disposal site.

(and renumber subsequent clauses respectively)

Add a new Appendix to the Township Volume of the Plan.

Appendix 41 Outline Development Plan for Darfield and associated Landscape Concept Plans and Staging Plan

Amend Appendix 25 (See Appendix 13)

Amend planning maps sheets 73, 74 and 77 (See Appendix 12)

Outline Development Plan

It is noted that if all of the changes identified below are made to the ODP then some of the rules identified above could be removed in particular those relating to setbacks if building exclusion areas are shown on the ODP.

- 1) The revised ODP be amended as follows:
 - m) An extension of 1100 m² be provided to the existing Pemberton Reserve
 - n) A centrally located reserve of 3000 m² be provided within the Living 1 Zone in the vicinity of the junction of the collector and local road
 - o) pedestrian and cycle links be provided within the ODP area to connect the reserve areas and provide for integrated movement of people and cycles within the Plan Change area
 - p) a 6 m wide strip along the northern boundary of the ODP area adjacent to the existing water race be provided
 - q) an updated landscape concept plan addressing the revised ODP area be provided
 - r) the identification of a possible future roading link between the plan change area and any adjacent land zoned Outer Plains be removed and note 3 be deleted from the ODP.
 - s) a minimum setback of 40 m apply between the boundary of the Business 2 zone and any dwelling to be erected in the Living 1 zone
 - t) a setback of at least 20 m be provided between any dwellings in the Living 1 zone and the closest boundary of the Rural Open Plains zone
 - u) an appropriate setback (between 25-150m) be provided between the wastewater treatment and disposal area shown within the Living 2A zone and any dwelling to be erected within the PC24 area

- v) a setback of 500 m be provided between the Darfield Shooting Centre and the notional boundary of any dwelling to be erected within the Living 2A zone
- w) A staging plan be introduced and reference to the staging plan incorporated into the ODP
- x) the limitation on individual property access is other than those existing along the Telegraph Road and Creyke Road is removed.

APPENDIX 4: RECOMMENDATIONS ON INDIVIDUAL SUBMISSION POINTS

Private Plan Change 24 - Silver Stream Estates, Darfield						
Summary of Decisions Sought						
Submission Number	Submitter	Decision No	Request	Decisions Sought	Wishes to be Heard	Recommendation
S01	Darfield Gun Club - James Robertson	1	Neutral	Subdivision of this area must only go ahead conditional on no noise complaints or restrictions on Gun Club activities	Yes	Accept in Part
<i>Further Sub</i>	<i>Darfield Township Committee Support S01</i>		<i>Support S01</i>	<i>Approve PC24 on the condition that there are no noise complaints or restrictions on Club activities</i>		<i>Accept in Part</i>
S02	Robert Beith & Maureen Reid	1	Accept	Approve plan	No	Accept in Part
S03	Selwyn District Council	1	Decline	Refuse plan in its entirety	Yes	WITHDRAWN
		2	Decline	In the alternative, all consequential, additional or other amendments to the provisions of the plan change necessary to give effect to the intent of this submission	Yes	WITHDRAWN
<i>Further Sub</i>	<i>Judith Pascoe Oppose S03</i>		<i>Oppose</i>	<i>Approve PC24</i>	<i>Yes</i>	<i>Original submission withdrawn</i>
<i>Further Sub</i>	<i>Mahaanui Kurataiao Limited</i>		<i>Support</i>	<i>That the assessment of effects specifically include an assessment of the potential cultural effects on tāngata whenua</i>	<i>Yes</i>	<i>Original submission withdrawn</i>

S04	Darfield Shooting Centre - Marcel van Leeuwen	1	Neutral	Consideration be given to the Shooting Centre when drawing up the plans for subdivision. Needs to stay business as usual.	Yes	Accept in Part
<i>Further Sub</i>	<i>Darfield Township Committee Support S04</i>		<i>Support S04</i>	<i>Don't want activities at the shooting centre to be affected.</i>		<i>Accept in Part</i>
S05	Peter & Marilyn Higgins	1	Decline	That the zoning of 1 and 1a Cardale St remains as present	No	Accept
S06	Evan Miles & Maureen Frew	1	Decline	That the Council NOT create any new Living 1 land at this time	Yes	Accept in Part
		2		We want the current B2 land on Cardale St, incl that owned by the applicant, to remain as B2. We support the rezoning of some L2A Def east of existing B2 on Mathias St to B2, industrial NOT retail. Extend Cardale St for access to new B2 and Mathias St through to Creyke Rd for access to current L2 Def land to the south.	Yes	Accept in Part

		3		If any additional B1 or B2 land is required in town centre then current B1 along south side of Sth Tce from Ritzo to Bray St should be extended south in order to keep all Business land together. Expansion by rezoning some L2 south of Mitchells timer yard SH73 between Cridges & Bangor Rd. Existing economic ctr needs protecting and have ability to expand in order not to fragment township.	Yes	Reject
S07	Paddy McKay	1	Accept	Accept entire application - let's get on with developing Darfield	Yes	Accept in Part
S08	Maxim Projects - Melissa Brownlee	1	Accept	That PC24 is accepted in its entirety	Yes	Accept in Part
<i>Further Sub</i>	<i>Judith Pascoe Support S08</i>		<i>Support S08</i>	<i>Approve PC24</i>	<i>Yes</i>	<i>Accept in Part</i>
S09	Foodstuffs	1	Decline	That proposed PC24 be rejected, unless and until a comprehensive retail assessment is produced and a more comprehensive planning framework is developed to address the concerns outlined above and give full effect to this submission.	Yes	Accept in Part
<i>Further Sub</i>	<i>Judith Pascoe Oppose S09</i>		<i>Oppose S09</i>	<i>Approve PC24</i>	<i>Yes</i>	<i>Accept in Part</i>
S10	Kelvin Taege	1	Not stated	I am concerned about PC24 in its current form because I want the town centre to remain the heart of the Darfield community and a focus for business activity.	Yes	Accept in Part
S11	Torlesse Travel Ltd	1	Support in part	Approve plan change and make recommended rezoning as proposed.	Yes	Accept in Part

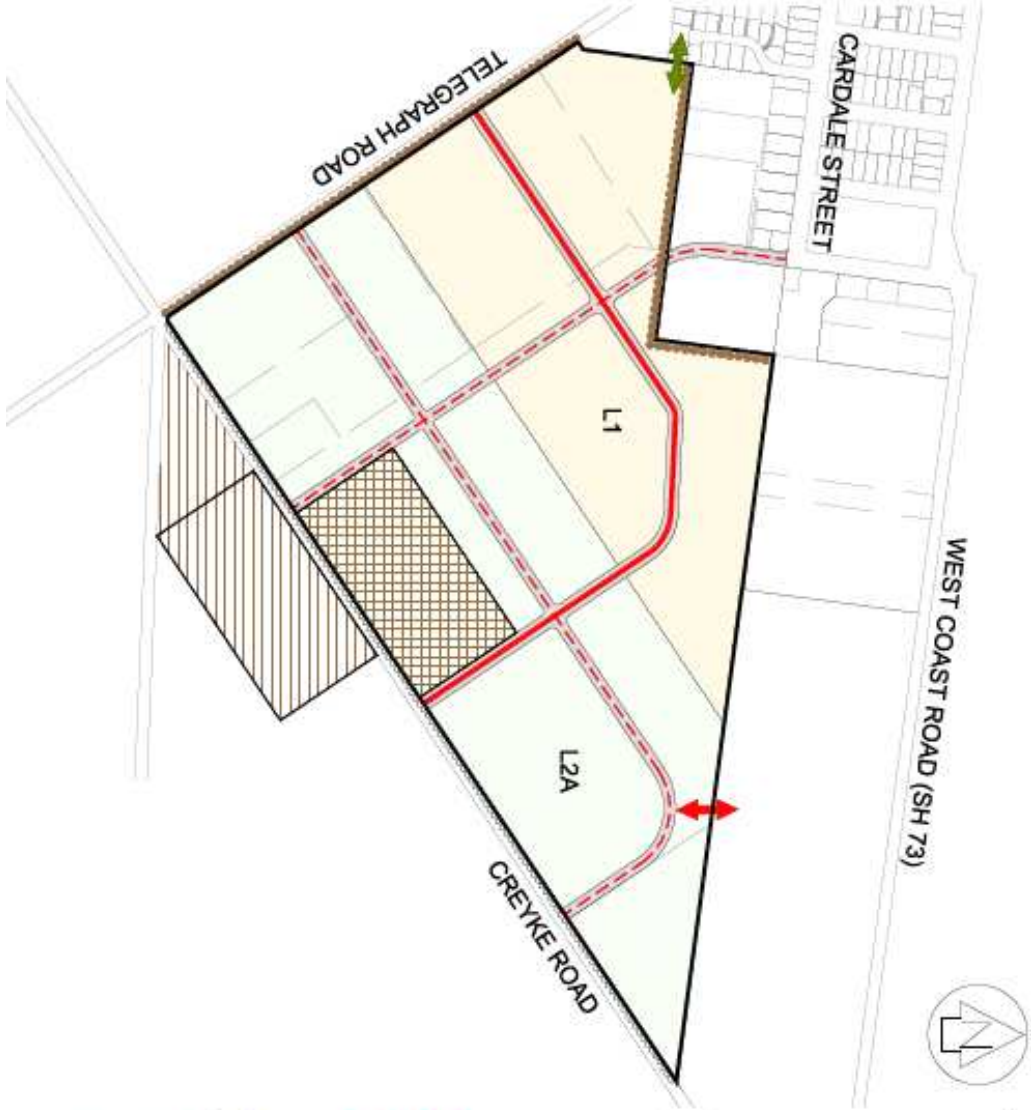
S12	Mary Ireland	1	Accept	That this particular private plan change be accepted and that staff work with developers to achieve a quality development in this town of Darfield.	No	Accept in Part
S13	Darfield Township Committee	1	Not stated	Make a balanced decision	Yes	Accept in Part
S14	Vance Perrin	1	Not stated	Relocation of the Cardale St business zone, to remove future zoning conflict	No	Reject
		2	Not stated	Rezoning of the identified L2A to that of L1 to ensure the continued structured and planned growth of Darfield and a township.	No	Accept in Part
S15	Silver Stream Estates	1	Accept	Council accept proposed plan change with amendments, set out in appendix A of submission, regarding Staging.		Accept in Part
<i>Further Sub</i>	<i>Judith Pascoe Support S15</i>		<i>Support S15</i>	<i>Approve PC24</i>	<i>Yes</i>	<i>Accept in Part</i>
S16	Trevor Wood	1	Decline	Don't rezone Living 2A (def) land to L1	No	Reject
		2	Amend	If a significant sized subdivision takes place, ensure a connecting road from Cardale to Creyke is built at the time	No	Accept in Part
		3	Amend	Don't permit fences higher than 1.8m	No	Reject
		4	Amend	Ensure more thorough consultation and planning before allowing existing B2 land to be rezoned as L1.	No	Accept in Part
S17	Frew's Transport Ltd	1	Decline	Decline consent to PC24	Yes	Accept in Part
<i>Further Sub</i>	<i>Judith Pascoe Oppose S17</i>		<i>Oppose S17</i>	<i>Approve PC24</i>	<i>Yes</i>	<i>Accept in Part</i>
<i>Further Sub</i>	<i>Darfield Township</i>		<i>Oppose S17</i>	<i>Approve PC24</i>		<i>Accept in Part</i>

	<i>Committee Oppose S17</i>					
S18	Judith Pascoe	1	Accept	Approve PC24 as presented in the Silver Stream application documents and including roading placement, accessways, residential density and B2 zoning.	Yes	Accept in Part
S19	Roger Knowles & Allan Cullen	1	Accept	Accept the application in its entirety	Yes	Accept in Part
S20	Ronald & Elva Glassey	1	Accept	We fully support Silver Stream Estates Ltd for their future planning of this area of Darfield	No	Accept in Part
S21	Jules Snoyink - Malvern Branch NZDA	1	Neutral	We are neither for or against the proposal, but we would like to make it very clear how important these recreational activities are to many (Shooting Centre). While we have planted trees to absorb noise this can still be heard in certain wind directions	Yes	Accept in Part
<i>Further Sub</i>	<i>Darfield Township Committee Support S21</i>		<i>Support S21</i>	<i>Draw attention of developers and future purchasers of the situation of the Darfield Gun Club</i>		<i>Accept in Part</i>
S22	Ross Saunders	1	Accept	To approve the Silver Stream plan change application	Yes	Accept in Part
S23	Reese Valpy	1	Accept	Please approve, thank you.	No	Accept in Part
<i>Further Sub</i>	<i>Darfield Township Committee Support S23</i>		<i>Support S23</i>	<i>Approve PC24</i>	<i>Yes</i>	<i>Accept in Part</i>
S24	Darfield Preschool & Nursery - BOT	1	Accept	That SDC approves the proposed changes of rezoning in this area	No	Accept in Part

S25	Stanley Stevenson	1	Decline	That the existing zone remains so that my sons and I can carry on the business.	Yes	Accept
S26	Donald Chambers	1	Decline	Reject the whole plan change	No	Accept in Part
<i>Further Sub</i>	<i>Judith Pascoe Oppose S26</i>		<i>Oppose S36</i>	<i>Approve PC24</i>	<i>Yes</i>	<i>Accept in Part</i>
s27	Mrs Karen Curtis	1	Amend	Access required from SH73 to proposed B2 land	No	Reject
		2	Amend	Green space for recreation required		Accept in Part
		3	Amend	No heavy traffic should be allowed on Mathias / Cardale Street		Accept in Part
		4	Amend	Acoustic fence may not be required if trees and shrubs are adequate		Accept in Part
		5	Amend	Roads widths should be wider to be in keeping with the rest of Darfield / to ensure fire engines can get access / enable more parking in the streets		Reject
		6	Support	Moving the B2 zone makes sense		Reject
		7	Support	Roading plan a good idea as traffic will be spread around the township		Accept in Part
		8	Support	Subdivision has a good mix of section sizes which will encourage a mix of people		Accept in Part
<i>Further Sub</i>	<i>Reese Valpy Oppose (no specific submission identified) general opposition to those submissions opposing the Plan Change</i>		<i>Oppose submission in opposition</i>	<i>Approve PC24</i>	<i>Yes</i>	<i>Accept in Part</i>

APPENDIX 5: REVISED OUTLINE DEVELOPMENT PLAN

Darfield
Outline Development Plan



Notes

- 1) A connected road network is to be formed, linking Telegraph Road, Mathias Street and Creyke Road.
- 2) Roads are to be aligned to provide a view along the road towards the Southern Alps
- 3) Provisions are to be made for road links between land zoned Outer Plains and both the L2A and B2 zone to allow for either living or industrial use in the future.
- 4) Any fencing along the Telegraph Road or Creyke Road frontages or the boundary with the Outer Plains zone to be generally consistent along the length of the frontage/boundary and to be of open rural style, such as post and rail or post and wire.
- 5) For landscaping, refer to the landscape concept plan.

- Collector Road
- Local Road
- Provision to be made for possible future road connection
- No individual property accesses except for those already existing
- Pedestrian / cycle links
- Amenity feature
- Wastewater & discharge area 7.5ha (approx)
- Alternative location of wastewater treatment and discharge area 7.5ha (approx)

APPENDIX 6: REPORTS

- Andrew Mazey addressing traffic and transportation matters,
- Murray England addressing servicing matters
- Mark Rykers addressing reserve matters and
- Russell Malthus addressing environmental health matters.

Resource Management Act 1991



Proposed Plan Change 24 to the Selwyn District Plan

Silver Stream Estates, Darfield

Technical Report on Transportation

To:	Hearings Panel
From:	Andrew Mazey, Selwyn District Council
Date:	13 December 2012

This report has been prepared under Section 42A of the Resource Management Act 1991. The purpose of the report is to assist Selwyn District Council's Hearing Commissioners to evaluate and decide on submissions on provisions in Plan Change 24 to the partially operative Selwyn District Plan by providing expert advice on technical matters. The report does not make recommendations on submissions but the information and conclusions contained within it may be used by planning officers as a basis for making recommendations on submissions. This report should be read in conjunction with the planning officer's report and any other relevant reports identified.

1. Introduction

My name is Andrew Mazey. I am Selwyn District Council's Transportation Asset Manager. I have been asked to prepare a report commenting on transport-related matters and associated submissions on Proposed Plan Change 24 (PC24) by Silver Stream Estates Ltd (the Applicant) at Darfield to the partially operative District Plan (DP).

I hold the following qualifications:

NZCE (Civil)

B.E Hons (Civil)

I have worked for the Selwyn District Council for over 21 years in various positions associated with the provision of roading and transport services and infrastructure, of which I have held the position of Transportation Asset Manager for approximately 6 years and an equivalent position before this.

PC24, as notified, seeks to alter the zoning of the site in accordance with the proposed Outline Development Plan (ODP) resulting in 45.3ha of Living 1 land (L1), 45.8ha of Living 2A zoned land (L2A) and 13.3ha of Business 2 zoned land (B2), a total of 113.4ha. It is noted that the Applicant has recently provided the Council with a revised ODP (RODP) that now excludes the relocated B2 zoned area as originally proposed, although the Applicant has not provided the Council with updated assessments of environmental effects detailing these changes.

The Applicant has advised that they intend on formally modifying their original ODP and associated assessment through the hearing to address issues raised through the submissions received on PC24. These changes are considered to be "with-in scope" as they are attempting to address submissions received and to reduce potential adverse effects. Therefore, this report will address the PC24 as notified; though will note the pending changes to the ODP as identified by the Applicant where it is possible to do so.

The biggest change from a transport perspective is that the proposed relocated B2 land has

been removed and changes to the main roading network. No further information or updating of the original transportation assessments in support of the RODP has been received from the Applicant.

2. Report Content

- Section 1: Introduction (as above)
- Section 2: Report Content
- Section 3: Background Information
- Section 4: Plan Change Overview
- Section 5: Assessment of Submissions
- Section 6: Conclusions

3. Background Information

This report is principally hinged on my previous involvement with land use and transport planning matters for Darfield, including the formulation and submission assessments on the DP, and more recently advice on proposed Plan Change 31, the Darfield Integration Plan (DIP). It also draws on any relevant Council strategic transport studies and strategies, policies, together with my own local knowledge and experience. Where relevant to this plan change, this is explained in more detail in this report.

3.1. Selwyn Transportation Activity

The Selwyn Council is responsible for providing land based transport system across the District. Central to this is a 2400km urban and rural local roading network that includes associated bridges, signage and other related infrastructure. There are 29 individual townships, including Darfield, throughout the district that collectively contains over 156km of footpaths and cycleways, and street lighting and road drainage systems. Council also provides bus facilities and bus capable roading networks in support of the public transport services provided by Environment Canterbury in the district.

The main information describing Councils Transportation activity is detailed in the Selwyn District Council Long Term Plan 2012 - 2022 commencing on Page 56.¹ This is derived from a much more detailed analysis and comprehensive representation of all the facets of the

¹ http://www.selwyn.govt.nz/data/assets/pdf_file/0006/78783/Pages-21-96.pdf

activity contained in Councils 2012 Transportation Activity Management Plan.² The Council also has to give effect to the 2012 Recovery Strategy for Greater Christchurch³ produced by CERA in any planning or decision making. In this document Greater Christchurch covers all of Selwyn District, including Darfield.

3.2. Council Transportation Strategies, Guidelines and other Plan Changes

Other Council roading and transportation information considered relevant to this plan change are as follows:

- 2009 SDC Walking and Cycling Strategy and Action Plan
- 2009 SDC Design Guide for Residential Subdivision in the Urban Living Zones
- 2012 SDC Engineering Code of Practice
- Plan Change 12 – Integrated Transport Management (PC12)
- Proposed Plan Change 31 – Darfield Integration Plan (DIP)

PC12 aims to encourage a more efficient and sustainable approach to the development of roading and transport systems and networks that can cater for future growth demands within emerging new urban forms. ODPs are a highly effective way to achieve this by inserting these into the DP on a spatial basis. This then provides the confidence that main roading, walking, cycling and public transport networks will progressively develop as planned in an integrated and coordinated way.

PC31 has the ability to lift the deferred status of approx. 645 hectares of existing zoned land at Darfield which could provide for an additional 2000 new households over time. This is sought to be achieved by inserting six ODPs into the DP to give effect to the DIP. A significant role of the ODPs is to show how the new transport networks will connect to existing ones to achieve an integrated land use and transport system over a wide area of development.

² <http://www.selwyn.govt.nz/services/roading/transportation-activity-management-plan>

³ <http://cera.govt.nz/recovery-strategy/overview>

4. Plan Change Overview

I have been involved in the various discussions and proposals promoted by the Applicant to develop the land in question since 2007. More recently in 2010 a private plan change application was received by Council to rezone land to the east of Mathias St and between SH73 and Creyke Rd to create a higher density L1 area, and a relocated B2 area over and above the underlying Living 2A zoning already provided in the DP.

As a general comment the process to date has been long and convoluted in attempting to have addressed some fundamental transportation concerns and significant work has gone into this to explaining this to the Applicant, and I am sure the Applicant may hold a similar view in reverse.

Originally I raised a number of issues based on the September 2010 Transportation Assessment Report (TAR). This included differences between that suggested in the Urban Design Assessment⁴ and the TAR. These were extensively referenced in a formal Request for Further Information⁵. Further discussions were held with the Applicant and subsequently a revised TAR was provided dated November 2010.

I reviewed this and had identified continuing concerns that were explained in detail to Councils planner⁶. The following summarises these points from this review work conducted at that time. These are still relevant however some issues may be more or less important based on the RODP that has been provided. However as no supporting technical information has been provided based on the RODP I can only surmise on the change in effects in most cases.

1. Utilisation of existing zoned land closer to Darfield's town centre appears more beneficial and efficient to Darfield than that proposed from a network development perspective.
2. Uncertainty about development intensities and related traffic generation and effects, in particular the relocated Business 2 area that could generate very high traffic volumes through network "pinch points".
3. The proposals could establish an alternative Darfield town centre that is relying on limited access to the surrounding network.

⁴ Appendix 5, November 2010 Application

⁵ Letter to Davis Ogilvie & Partners, Request for Further Information, 27 October 2010.

⁶ Memo to Planner, Transport Comments, 17 December 2012

4. No development staging provided to determine how infrastructure will be efficiently and effectively provided including intersection and road upgrading.
5. Lack of clarity on the roles that connections to Mathias St, Telegraph Rd and Creyke Rd would play.
6. Possible confusion on the access and LoS expectations along Telegraph Rd and Creyke Rd relating to urban form and amenity.
7. Possible Internal roading hierarchy misalignments
8. Provision of off road walking and cycling linkages through the site

These aspects are elaborated on further as follows.

Existing Zoning

I consider that the existing zoned (deferred) L1 land in the DP closer to the existing town centre is better positioned to utilise existing roads to develop an integrated transport network using a “hub and spoke” concept than that offered by the Applicant. Indeed this is the basis of the DIP to develop efficient and well-connected transportation networks over these existing currently zoned areas. This includes roading and walking and cycling networks.

The “spokes” are seen as SH73, Bangor Rd (SH77), Telegraph Rd, Greendale Rd, McLauglins Rd and Kimberly Rd connecting to the existing town centre “hub”. However I acknowledge that the problem with development in a number of these areas relates to multiple property ownership and differing expectations. This can make integrated development difficult to coordinate (and hence the need for the DIP). This does not seem to be a significant impediment to the PC24 so in that respect if it caters for demand in the interim until other areas can develop then it has some advantages from that perspective.

Traffic Generation

The major area of doubt from my perspective has been the level of traffic generation from the proposed development and what is the likelihood of this occurring and when. This plays a significant part in understanding what the effects are and what the necessary mitigation maybe. The Applicant had previously provided 3 different development proposal intensities with varying degrees of traffic generation potential based on these.

In most respects the current L2 deferred zoning in the DP in this area acknowledges the potential issues to connect to the existing roading network, particularly at the Mathias

St/Cardale St intersection and was a reason why a lower density zoning was considered more sustainable than say that proposed by PC24.

If the Applicants “Low Intensity” option is discounted then possible traffic generation for the relocated B2 area would range between 8,200 and 18,000 vehicles per day (vpd). This could also be heavily influenced by the suggestions to locate a new supermarket in this area, as these activities are significant trip generators in their own right.

It would be of significant concern if this B2 traffic was channelled through Mathias St and its intersections with Cardale St and SH73. It has been shown in the TAR that in some instances existing intersections could not provide the Level of Service (LoS) necessary without significant improvements. This would be aggravated by the traffic generated from the proposed neighbouring PC24 L1 and L2A areas further compounding the issue.

Therefore removing the proposed B2 area from the RODP has avoided this significant adverse traffic effect which I consider would not have been able to have been sustainably provided for unless there was a major upgrading of the network in places e.g. Mathias St and its related intersections.

The Applicant had assessed, based on a 550 lot yield from the L1 area and 45 lot yields from the L2 area, that 3600vpd would be generated from the development based on 6 vehicle trips per day from each lot⁷. This seems a reasonable estimation (excluding the B2 area) so equally could be applicable to that proposed under the RODP in a similar context.

However as an updated TAR has not been provided to support the RODP this is not entirely certain, and neither the proportion of traffic that will access the existing network at Mathias/Cardale St, Telegraph Rd, and Creyke Road. Therefore an assessment of effects cannot be undertaken on these roads and intersections. I could assume “less is better” from a trip generation perspective with the removal of the relocated B2 area, but there is no definitive current data to draw comparisons on.

New Town Centre

A larger new and/or relocated B2 area with a potential supermarket and retail activities would have opened up a significant area of new commercial development in competition to the existing town centre. From a transport perspective this would not be desirable as it would

⁷ Section 9.1.2 Transport Assessment Report November 2010

promote more people to drive to and between these different areas or “centres”. The development of a network of walking and cycling linkages through the DIP are prime outcomes that seek to reduce travel demand and car use utilising the existing centralised town centre “hub”.

Removing the relocated B2 area as shown on the RODP addresses my concerns in that regard, however even with the remaining PC24 living zones good roading, walking and cycling networks and connections will still need to be achieved.

Development Staging

A criticism to date has been the lack of detail on how development will be staged to optimise connectivity to existing networks and infrastructure in an efficient and effective way. It would be my expectation that any new development would radiate out from the existing township areas utilising Mathias and Cardale Streets as the initial connection point between existing and proposed roading networks.

Under PC12 Mathias and Cardale Streets are both classified as collector roads, and hence have an inherent wider assigned wider network function for connecting to the existing town centre, SH73, and other arterial routes. Equally the staging of new development areas should capitalise on the proposed walking and cycling connections such as through the Pemberton Drive Reserve for similar reasons.

I believe confirming how the staging of the development will occur is important part of the PC24 process as this will determine when connectivity needs to occur, and when key infrastructure needs to be provided or upgraded in a coordinated way to achieve this.

Key Roding Connections

As identified above there seems to be doubt on what the form and function of the key roading connections will be between the existing and proposed networks. This is heavily influenced by the proportion of traffic using these connections and also how the development will be staged to what they need to accommodate.

The original ODP showed “collector” roads through the PC24 site connecting between Mathias/Cardale St, Telegraph Rd and Creyke Rd. On a fundamental level this is supported, at least on the basis of identifying a roading hierarchy through the development and how this may interact with wider network connectivity and development.

By comparison the RODP has removed the collector link to Mathias/Cardale St and changed the main roading layout. I do not support the removal of this higher order link to Mathias/Cardale St as it would be nonsensical to not have a collector type link to the existing collector road network in this vicinity, particularly when it provides connections to the town centre, SH73 and wider arterial network.

As there is no TAR relating to the RODP, I cannot determine what is envisaged or needed to upgrade the existing SH73/Mathias St intersection, and the appropriate intersection treatment of Mathias/Cardale St. In regards to the SH73/Mathias St intersection the original TAR indicated that improvements were necessary to address LoS issues, such as the need for additional turning lanes.

Equally there has been confusion in the information previously provided by the Applicant on what form an intersection of Mathias/Cardale St and the new PC24 access road would take. This could be a priority controlled intersection but what route would have priority? A roundabout has also been suggested but whatever option this needs to take account of the existing network priorities, traffic composition and future connections. This would include heavy vehicles from the existing B2 area and more specifically trucks from Frews Transport and buses from Torlesse Travel needing to access SH73 and the Telegraph Rd arterial to State Highway 1.

Whatever is confirmed appropriate with Council will need to be provided by the Applicant at these intersections plus any upgrading of Mathias St and Cardale St between them to provide the footpaths, street lighting and other related infrastructure that will connect the existing township and proposed development areas together.

The proposed connections to Telegraph Rd and Creyke Rd are more straight forward as “T” intersections however it is noted that Telegraph Rd is classified as an arterial route in the DP, and also a Strategic Road⁸. Creyke Rd is currently an unsealed rural road which will be required to be upgraded and sealed by the Applicant to cater for the significant increase in traffic generated from the development.

Whilst the NZTA have advised the Applicant⁹ that they have no objections to the proposed development relating to the highway, I have been aware of concerns from a more

⁸ Canterbury Regional Land Transport Strategy 2012 - 2042

⁹ As recorded by the Applicant in Appendix 9 of the Application

operational perspective in the past with the alignment of the intersection of Creyke Rd and SH73 which intersects with the Highway at an angle.

It would be my opinion that the safety and efficiency of the intersection could be improved with realignment, and that this is incorporated (subject to confirmation by the NZTA) into the overall upgrade of Creyke Rd required by the Applicant.

I note SH73 is a Limited Access Road¹⁰ and such the NZTA can control access via “authorised crossing points”. This then generally precludes numerous new vehicle accessways and intersections being utilised for access along these highways. In addition PC12 requires property access to occur off lower order local roads if this is a practical option.

What I consider is a major omission at this point is that the Applicant needs to assess and advise on the extent and nature of the main existing intersection and roading upgrades based on the RODP. Any subsequent agreement on these will then form the basis of what will be applied by Council through subsequent conditions on consent to this effect and stipulated engineering standards and detail at that time.

Telegraph Rd and Creyke Rd Streetscape Amenity and Form

As noted above Telegraph Rd is a key arterial in the network while Creyke Rd is an unsealed rural road. Apart from the issue of roading and intersection access as discussed above, the issue of more direct property access and amenity integration or enhancement perhaps remains unclear along these road frontages. Currently Telegraph Rd south of Cardale St offers a high degree of streetscape associated with well-maintained berms, trees and a water race feature along the east side. I support the retention and enhancement of this by any adjoining development south to Creyke Rd. However there has been confusion previously if this should exclude direct property lot access.

It would be my expectation based on the views of Council in such situations that it would include access, as the proposed development is extending the urban form and nature of Darfield. Consequently direct access and urban infrastructure would logically follow including drainage, footpaths and street lighting - at least over the L1 frontages. This would also go hand in hand with extending speed limits further south along Telegraph Rd to “encapsulate” these new urban areas.

¹⁰ As defined by Section 88 Government Roadway Powers Act 1989

Allowing lots to have direct access to roads reinforces the urban outcomes sought by Council Subdivision Design Guide by avoiding tall continuous fences from developments “turning their back” to an existing road and township area. In addition this minimises the number of new roads to service lot access internally. I believe Telegraph Rd should be no exception to this. Unfortunately this outcome did not occur for the Standwood Grove subdivision.

Equally I believe direct property lot access to Creyke Rd is sustainable based on the fact it needs to be upgraded to cater for the traffic generated and intersections needed, and that it is a L2 lower density development which means that individual accessways are more sporadic. Again this would possibly avoid the need to service this southern area with new internal roads that are not then necessary, and assist in overall amenity and speed management of the section of Creyke Rd between SH73 and Telegraph Rd. This is contrary to what the RODP depicts showing no direct property lot access to Creyke Rd.

Internal Roding Hierachy

The Applicant has provided a RODP that has a different roading layout than that previously provided with PC24. It seems generally consistent with that shown in PC31, ODP Area 3. The Applicants RODP also makes a distinction between what it describes as collector and local roads. These are classifications that used in the DP that have specific obligations and standards related to this such as carriageway width, number of footpaths, intersection spacing's etc. It is my experience through Plan Change 7 when developing ODPs that it is unwise to use DP type classifications directly. This is because it would infer an “automatic” DP classification and standard that may not be appropriate for the specific ODP area and wider network coordination.

It could well be that those roads currently shown as “collector” roads may actually be more appropriately classified as a Local Major Road (PC12) for example. For this reason a more non-descript ranking is recommended for use on ODPs such as referring to them as “primary” or “secondary” roads to show sufficient hierarchal distinction, without being too specific.

I would recommend that those roads shown as “collector” and “local” roads are relabelled as “primary” and “secondary” roads. In addition, as identified previously, the section of new road that connects to Mathias/Cardale St should be shown as a primary road because it connects to the existing Mathias/Cardale St classified collector road route. To this end I believe the

PC31 ODP Area 3 Plan is the better representation of what is considered appropriate to be included in the DP than the similar, but less developed RODP.

It regards to future roading linkages its questioned why a “possible future road connection” is shown on the RODP between the L2A area an Outer Plains zoned area south of SH73 (referred to as the ex Joblins Plantation) when there is no intention to develop this area further as shown in the DIP.

Walking and Cycling Linkages

The new ODP shows little in regards to how main walking and cycling linkages may occur through the area. I note the connection to via the reserve at the end of Pemberton Drive east into the development area which I would expect a walkway/cycleway would be integrated into the “amenity feature” to the new road connecting to Mathias/Cardale St. Equally I would expect that a link extends south from the Pemberton Drive reserve to connect to Telegraph Rd, and to the footpath facilities that will be provided along this development frontage.

The DIP also shows a linkage extending north from the L1 area through the now removed B2 area to SH73. I agree with this link as it will connect the balance of the originally zoned deferred L2 area to these areas in the future, and the provision for this should be included in PC24 to enable this to occur in the future.

I am aware that the Technical Report on Reserves and Open Spaces by Mark Rykers has identified the need to increase the size of the Pemberton Drive Reserve and the need to provide a centrally located reserve. This further reinforces the point that the Applicant needs to show as part of any ODP the network of the main walking and cycling connections and how any amenity, parks and reserves will be connected together in a cohesive way utilising both specific linkages and the roading network.

5. Submission Assessments

I have been requested to provide transportation comments to the submissions on PC24 by the Councils Planner. The summary details relating to these are attached as Appendix B to this Report, as produced by the Policy Planner. The submissions commented on below are only those I consider have a transport relevance that needs to be included in my report.

Selwyn District Council (S03)

This submission seeking a decision to refuse the plan change its entirety has I understand been withdrawn by the submitter and therefore those transport aspects are no longer eligible for comment.

Miles and Frew (S06)

The submitters transport concerns relate to:

- Rezoning the existing B2 area to L1 and additional residential accessways on a route used by business and commercial vehicles.
- That the “main entrance” to the PC24 development will be from the Mathias/Cardale St corner and the adequacy this and also the Mathias St/SH73 intersection which the submitters refers to as an “already a dangerous corner”.

The majority of Mathias St and Cardale St through to Pemberton Ave is used for commercial vehicle access reflecting the adjoining B2 zoning alongside these streets. These roads are also classified as collector roads in the DP reflecting their network importance providing connections to the town centre, SH73 and Telegraph Rd. All of the commercial traffic in this area relies on access to and from these main roads.

The RODP has dispensed with rezoning the existing B2 land and therefore the potential for the creation of new residential accessways onto these roads. However I would agree this would not have been a favourable outcome in this area relating to how commercial and residential access and traffic may have mixed.

The submitter comments that there will issues with connecting a new access road to the current Mathias/Cardale St corner and questions what form this intersection would take. I agree with the submitter that this will likely be the main entrance off SH73 to the PC24 development as it's the shortest route from the SH73 to the bulk of the proposed living zones. Equally the submitter has also identified existing concerns with the Mathias/SH73 intersection.

Foodstuffs (SI) Properties Ltd (S09)

This submission raises the point that the Applicant believed the relocated B2 land would only transfer existing likely effects and ignores the potential cumulative adverse effects relating to the new site. I would agree with the submitters point from a transport perspective at least, however as the RODP retains the status quo on B2 zoning this likely to be no longer relevant.

Torlesse Travel Ltd (S11)

The submitter raised a concern about the width of roads and manoeuvrability for their bus fleet if they relocated to the proposed new B2 site. This is more a matter of design detail at subdivision stage. PC12 provides a classification of “Local Business” roads that caters for these types of situations and the necessary design parameters to cater for heavy/large vehicles in such zones.

The submitter seems to be comfortable with the TAR and how the increase in traffic will be managed, however I do not share that view, particularly as no assessment has been undertaken based on the RODP.

Darfield Township Committee (S13)

The submitter believes a direct connection to SH73 from the relocated B2 is needed, however as this is Limited Access Road this would require the approval of the NZTA, which as I understand has never been forthcoming.

The submitter also identifies the Mathias/Cardale Street as an issue and questions what intersection treatment may be required. Generally the submitter supports the roading pattern and network connectivity points (also submitter Ireland S12)

Silver Stream Estates (S15)

This submission is from the PC24 Applicant itself. It includes:

- Staging Rules and Plan
- Traffic Rule relating to B2 areas
- Amended Outline Development Plan

As discussed previously the Applicant has not provided any staging information until this submission. This seemingly may address this now but is in relation to the ODP versions that include rezoning the existing B2 area to L1. However this is now superseded by the RODP - that does not include any changes in B2 zoning. A revised staging plan needs to be provided. In general terms I would be comfortable from a staging point of view if a simple progression followed something like this.

- Stage 1 – L1 initial network accessed from Mathias St
- Stage 2 – L1 network connection to Telegraph Rd and a L2 connection to Creyke Rd
- Subsequent Stages – remaining L2 and network development and connections.

The Applicants submission also suggests a proposed traffic rule makes any activity within a B2 zone a discretionary activity limited to “the impact of the business activity on the surrounding traffic environment”. I would agree that this maybe a useful rule to allow Council to consider the traffic impacts from new business activities, but I am uncertain on what the extent of the application of this rule may take, for example if it includes both existing and proposed B2 land in Darfield.

Finally the Applicant also submitted a revised ODP that shows the proposed roading network seemingly aligning with the DIP - ODP Area3. However as noted above this submitted ODP includes the B2 zoning which is not shown on the RODP.

Wood (S16)

The submitter opposes the Application and refers to the other currently zoned land closer to the centre of Darfield together and issues with the proposed access from Mathias/Cardale St due to increasing traffic issues there, and at the Mathias St/SH73 intersection. Whilst the connections to Creyke Rd are shown the submitter raises doubts on when these may actually occur to the benefit of the existing and new networks being created. These are points of concern that I have also previously identified this report.

Saunders (S22)

This submitter owns nearly half of the property north to SH73, currently with a L2 deferred status, associated with the originally proposed relocated B2 area. I believe there was the intention by the Applicant to propose servicing this area by the extension of Cardale St directly east. The submitter requests that if this does not proceed then the Applicant provides alternative roading access. The DIP does show a “proposed future roading connection” utilising an extension of Cardale St to the east. On this basis it would be prudent that this intention was aligned between the respective plan changes. In addition any intersection treatment of the Mathias/Cardale St intersection should also cater for the likelihood of such a connection in the future and be assessed by the Applicant on that basis.

Darfield Preschool and Nursery (S24)

I reference this submission on that basis that it is a good example on providing walking connections to “community” facilities such as this from planned new living areas. This reinforces my view that connecting footpaths need to be provided on the existing streets of Mathias and Cardale Streets to meet such connectivity demands between new and existing township areas and activities.

Chambers (26)

This submitter raises similar transport concerns as Wood (S16) above and my response can be related back to this also.

Curtis (S27)

The submitter requests that access should be provided from SH73 to the proposed B2 land. This is the same as made by the Darfield Township Committee (S13) where I provided my comments. The submitter then requests no heavy traffic uses Mathias and Cardale St. These are classified as collector roads and by that nature are expected to cater for that type of use within reason, as already occurs associated with the existing B2 zone beside them.

The submitter requests road widths in keeping with the other areas of Darfield. Darfield is unusual is the majority of the network is located within 30m wide corridors rather than the more usual 20m (or less). The DP contains the standards and specifications relating to road widths etc. which I see no reason to deviate from this in terms of determining the efficient utilisation of land for transport corridors and the standard of roads within them. Through subdivision consents any new developments will have to meet Councils engineering standards which cater for the more practical types of concerns the submitter expresses.

6. Conclusions

I am wary of this Application as it is likely to be significantly modified according to the Applicant based on a revised Out Line Development Plan (Appendix A) with no current supporting transport assessment information compared to that originally notified. This has meant at the time of writing this report the true transportation effects, and how they are likely to be avoided, remedied or mitigated cannot be assessed with any certainty.

However the intention signalled by the Applicant not to include any new or relocated Business 2 land has alleviated my overarching concerns about potentially a large amount of commercial traffic being generated in the area, and significant adverse effects on the adjoining roading networks. However I see a risk that even if the plan change proceeds incorporating only Living 1 and Living 2A zoning this intention may resurface in the future using a network that has a higher again base demand than what exists at present.

Both I and a number of submitters have raised concerns about the Mathias St connections

and intersection performance. This includes at both Cardale St and SH73. The current assessments are unclear on what these may take based on a possible range of development scenarios relating to the originally proposed relocated B2 land, and whilst this may now not proceed the effects are still not quantified on any revised basis. This includes how any revised network and its connections will interact to the existing network based on whatever the final land use zoning maybe.

Equally it is also unclear how the frontages of Telegraph Rd and Creyke Rd may develop based both an access and amenity aspects to integrate to the expanded urban area being created. The Applicant however will be responsible for the costs to upgrade these roads to the required form to mitigate transport effects and to create the interfaces relevant to the nature of the roads and their new roles.

I have also noted that walking and cycling networks need more emphasis on any ODP that what has been shown to date, to reflect how existing and proposed reserves will be linked together.

I am also concerned that there are two plan changes processes currently in play for this area, both this one and PC 31 Darfield Integration Plan. These need to reconcile so that transport outcomes are the same and one has not the ability to usurp the other over this development area.

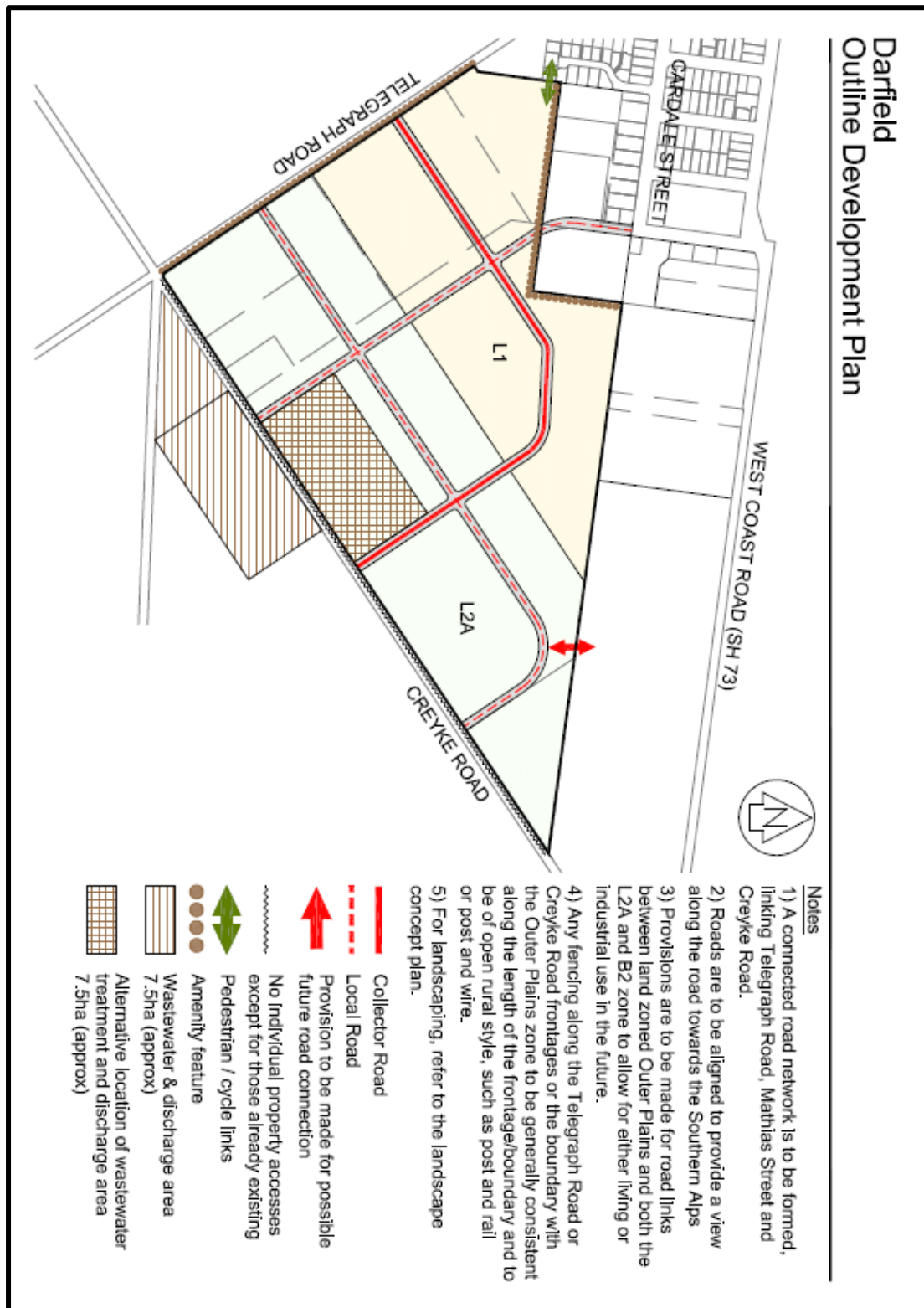
In summary I would not support the plan change as notified due to the major traffic effects relating to the relocated Business 2 land that remain unresolved. However I would be more comfortable based on the intention to remove this zoning, however the revised proposal to date has not been comprehensively reassessed by the Applicant, and on that basis I cannot support it with any confidence while some issues still remain unclear as I have detailed in this report.



Andrew Mazey
ASSET MANAGER TRANSPORTATION

23 November 2012

Silver Stream Estate Ltd Revised Out Line Development Plan (RODP)



Appendix B

Private Plan Change 24 - Silver Stream Estates, Darfield					
Summary of Decisions Sought					
Submission Number	Submitter	Decision No	Request	Decisions Sought	Wishes to be Heard
S01	Darfield Gun Club - James Robertson	1	Neutral	Subdivision of this area must only go ahead conditional on no noise complaints or restrictions on Gun Club activities	Yes
S02	Robert Beith & Maureen Reid	1	Accept	Approve plan	No
S03	Selwyn District Council	1	Decline	Refuse plan in its entirety	Yes
		2	Decline	In the alternative, all consequential, additional or other amendments to the provisions of the plan change necessary to give effect to the intent of this submission	Yes
S04	Darfield Shooting Centre - Marcel van Leeuwen	1	Neutral	Consideration be given to the Shooting Centre when drawing up the plans for subdivision. Needs to stay business as usual.	Yes
S05	Peter & Marilyn Higgins	1	Decline	That the zoning of 1 and 1a Cardale St remains as present	No
S06	Evan Miles & Maureen Frew	1	Decline	That the Council NOT create any new Living 1 land at this time	Yes
		2		We want the current B2 land on Cardale St, incl that owned by the applicant, to remain as B2. We support the rezoning of some L2A Def east of existing B2 on Mathias St to B2, industrial NOT retail. Extend Cardale St for access to new B2 and Mathias St through to Creyke Rd for access to current L2 Def land to the south.	Yes

		3		If any additional B1 or B2 land is required in town centre then current B1 along south side of Sth Tce from Ritzo to Bray St should be extended south in order to keep all Business land together. Expansion by rezoning some L2 south of Mitchells timer yard SH73 between Cridges & Bangor Rd. Existing economic ctr needs protecting and have ability to expand in order not to fragment township.	Yes
S07	Paddy McKay	1	Accept	Accept entire application - let's get on with developing Darfield	Yes
S08	Maxim Projects - Melissa Brownlee	1	Accept	That PC24 is accepted in its entirety	Yes
S09	Foodstuffs	1	Decline	That proposed PC24 be rejected, unless and until a comprehensive retail assessment is produced and a more comprehensive planning framework is developed to address the concerns outlined above and give full effect to this submission.	Yes
S10	Kelvin Taege	1	Not stated	I am concerned about PC24 in its current form because I want the town centre to remain the heart of the Darfield community and a focus for business activity.	Yes
S11	Torlesse Travel Ltd	1	Support in part	Approve plan change and make recommended rezoning as proposed.	Yes
S12	Mary Ireland	1	Accept	That this particular private plan change be accepted and that staff work with developers to achieve a quality development in this town of Darfield.	No
S13	Darfield Township Committee	1	Not stated	Make a balanced decision	Yes
S14	Vance Perrin	1	Not stated	Relocation of the Cardale St business zone, to remove future zoning conflict	No
		2	Not stated	Rezoning of the identified L2A to that of L1 to ensure the continued structured and planned growth of Darfield and a township.	No
S15	Silver Stream Estates	1	Accept	Council accept proposed plan change with amendments, set out in appendix A of submission, regarding Staging.	
S16	Trevor Wood	1	Decline	Don't rezone Living 2A (def) land to L1	No
		2	Amend	If a significant sized subdivision takes place, ensure a connecting road from Cardale to Creyke is built at the time	No
		3	Amend	Don't permit fences higher than 1.8m	No

		4	Amend	Ensure more thorough consultation and planning before allowing existing B2 land to be rezoned as L1.	No
S17	Frew's Transport Ltd	1	Decline	Decline consent to PC24	Yes
S18	Judith Pascoe	1	Accept	Approve PC24 as presented in the Silver Stream application documents and including roading placement, accessways, residential density and B2 zoning.	Yes
S19	Roger Knowles & Allan Cullen	1	Accept	Accept the application in its entirety	Yes
S20	Ronald & Elva Glassey	1	Accept	We fully support Silver Stream Estates Ltd for their future planning of this area of Darfield	No
S21	Jules Snoyink - Malvern Branch NZDA	1	Neutral	We are neither for or against the proposal, but we would like to make it very clear how important these recreational activities are to many (Shooting Centre). While we have planted trees to absorb noise this can still be heard in certain wind directions	Yes
S22	Ross Saunders	1	Accept	To approve the Silver Stream plan change application	Yes
S23	Reese Valpy	1	Accept	Please approve, thank you.	No
S24	Darfield Preschool & Nursery - BOT	1	Accept	That SDC approves the proposed changes of rezoning in this area	No
S25	Stanley Stevenson	1	Decline	That the existing zone remains so that my sons and I can carry on the business.	Yes
S26	Donald Chambers	1	Decline	Reject the whole plan change	No
s27	Mrs Karen Curtis	1	Amend	Access required from SH73 to proposed B2 land	No
		2	Amend	Green space for recreation required	
		3	Amend	No heavy traffic should be allowed on Mathias / Cardale Street	
		4	Amend	Acoustic fence may not be required if trees and shrubs are adequate	
		5	Amend	Roads widths should be wider to be in keeping with the rest of Darfield / to ensure fire engines can get access / enable more parking in the streets	
		6	Support	Moving the B2 zone makes sense	
		7	Support	Roading plan a good idea as traffic will be spread around the township	
		8	Support	Subdivision has a good mix of section sizes which will encourage a mix of people	

Resource Management Act 1991

Proposed Plan Change 24 to the Selwyn District Plan

Silverstream Estates Limited

Technical Report on Water Services

To:

Commissioner

From:

Murray England,
Selwyn District Council

Hearing Date:

13 December 2012

This report has been prepared under Section 42A of the Resource Management Act 1991. This report should be read in conjunction with the planning officer's report and any other relevant reports identified.

Introduction

1. I am the Asset Manager Water Services for the Selwyn District Council ("the Council").
2. I have been employed by Council since March 2009 and currently hold the position of Asset Manager Water Services. My qualifications are BE (Environmental) and NZCE (Civil).
3. As Asset Manager Water Services my main area of responsibility is to provide my expertise and advice to the Council on five waters (wastewater, water supply, stormwater, water races and land drainage management). Part of my role is to review, when required, proposed new developments such as plan changes and resource consent applications from an engineering servicing perspective.
4. The purpose of this report is to provide expert engineering evidence addressing any implications arising from the current Plan Change 24 ("PC24") lodged by Silverstream Estates Limited ("the applicant") relating to wastewater, water supply and stormwater.

Background

5. PC24, as notified, seeks to alter the zoning of the site in accordance with the proposed Outline Development Plan (ODP) resulting in 45.3ha of Living 1 land, 45.8ha of Living 2A zoned land and 13.3ha of Business 2 zoned land (total 113.4ha).
6. It is noted that the applicant has recently provided the Council with a revised ODP that now excludes the Business 2 zoned area as originally proposed, although the applicant has not provided the Council with updated assessments of environmental effects detailing these changes. The applicant has advised that they intend on formally modifying their ODP and associated assessment through the hearing to address issues raised through the submissions received on the Plan Change.
7. I am advised that these changes to the Plan Change application are considered to be "with-in scope" as they are attempting to address

submissions received and to reduce potential adverse effects. Therefore, this evidence will address the Plan Change as notified, though will note the pending changes to the ODP as identified by the applicant where it is possible to do so.

8. The information relevant to preparing this report has been the 2010 Davis Ogilvie servicing report, 2012 BECA letter detailing wastewater treatment and revised 2012 ODP provided by the applicant.
9. Since the time the Plan Change was lodged the Selwyn District Council Assets department has been considering the servicing implications of this proposal. There had been a number of meetings between the applicant and the Selwyn District Council to discuss servicing matters prior to my involvement in this Plan Change.
10. Councils original submission dated 30 June 2011 was not supportive of the development. The reasons for this opposition, with regard to water services, include:

Wastewater

- a. *In principle, the provision of a package wastewater treatment system (although it is recognised that this would be preferable to individual disposal systems) is not supported. The reasons are for this include that the timing is inappropriate, given the Council consultation process with respect to a community wide approach to the treatment and disposal of wastewater is in progress; and concerns regarding the infrastructural inefficiencies of multiple treatment systems; deficient information relating to minimum and maximum flows, water quality at discharge, waste product treatment and disposal methods, scheme materials and installation techniques, operation and maintenance costs, and lifecycle costs (including renewal of components) are not known.*

Water

- b. *The two wells from which the Council is seeking supply be secured may not be able to provide water to the existing Living zoned land within Darfield (capacity around 1,750 households). This increase in Living 1 zoned land could not be supported in terms of water provision at this stage because an adequate water supply is unavailable.*
- c. *The plan change application also identified using water from Kirwee as an option. The conveyance of water from Kirwee to service the plan*

change area is not supported, due to the inefficiency of such conveyance and the potential cost burden on other scheme users (if the infrastructure was to be vested in the Council at some stage in the future).

11. The concerns and the reasons given in the submission are still valid. However, I have considered the proposed servicing matters and set out my opinion on the servicing aspects of the Proposed Plan Change below which takes an alternative view.

Wastewater

12. The applicant is proposing one of two options: individual onsite sewage treatment or a reticulated system to a new treatment plant. The most recent 2012 Outline Development Plan (ODP) provides an area within the Plan Change site identified as a disposal area with an alternative disposal area shown on Council owned land.
13. The decision on the type of treatment and disposal system could be deferred until the time of resource consent or engineering approval to allow for further option analysis. Council would require an extended maintenance period for any treatment plant until performance is proven.
14. The Council and the applicant have discussed a number of options to address wastewater. It is acknowledged that there are potential benefits for both Council and Developer in working collaboratively through the ODP, consenting (District and Regional Councils) and engineering approval processes. It is also recognised that the provision of a centralised wastewater treatment system may be preferable to individual disposal systems when proposed development densities are high.
15. The applicant proposes MBR sewage treatment technology which is a relatively new technology and Council has concerns over on-going operation and maintenance and lifecycle costs especially during the initial staging of the development. At this time the Council is not in a position to accept this form of treatment asset. Therefore, it may be that the applicant may wish to, or may need to, form a body corporate to manage this asset in the long term should it remain the preferred solution.
16. If a centralised treatment system was approved by Council, after consultation with the community, it may be preferable that the actual treatment site be located on Council owned land (purchased for this purpose in 2007) adjoining the Creyke Road boundary of the proposed Plan Change, rather than on the

Plan Change site itself. Careful consideration needs to be taken while drafting any Environment Canterbury resource consent conditions that Councils interests are taken into account and are incorporated.

17. The 2012 BECA report provides within table 1 – design data for the larger subdivision. It is important to note that the table provides two potential disposal area sizing's being 7.5ha and 15ha based on a 400 lot subdivision. The smaller of these two areas have been adopted by the applicant. Confirmation/clarification of the area required is needed from the applicant.
18. However, until such time that a particular proposal has been considered and agreed by the Council it cannot be confirmed that the treatment site can occur off the application site. Therefore, until such time it is important that an adequate treatment site still be identified within the ODP on the applicant's site. However, it is considered that some recognition should be provided that identifies that the Council site could provide an alternative for sewage treatment and disposal.
19. Regardless of the location of the disposal area it will be essential that covenants be placed on titles on the Plan Change land identifying that purchases do not oppose any current or future sewer discharge consent applications.
20. Council needs to be satisfied the proposed small scale treatment plant can be upgraded/incorporated into the ultimate large scale system. Further information to address this is needed.
21. The Developer has offered to provide additional capacity in the reticulation network to allow the connection of the existing Darfield township in the future. This offer is appreciated and likely to be accepted by Council. The ODP should therefore include indicative sewer linkages for possible future connections (again refer attached marked up ODP).
22. Disposal of effluent via on-site individual disposal systems is an option for this development subject to Environment Canterbury Rules and lot sizes. The L1 zone provides for site size of 650m². Confirmation from the applicant is required that the proposed site sizes are suitable for onsite wastewater treatment and disposal or if greater lot sizes are required.
23. This may impact on the overall number of lots that could be created and would be subject to any necessary approvals being obtained, but it provides an alternative wastewater management option. Council would require the applicant to provide discharge consents from Environment Canterbury for each lot prior to subdivision resource consent approval.

24. In conclusion, at this time the Council is not comfortable that the applicants preferred solution for wastewater servicing is acceptable to it and is not prepared to commit to taking responsibility for the system proposed. However, it is considered that it is feasible that land subject to the Plan Change can be adequately serviced for wastewater. It is important that the ODP recognise and provide for the available options including:
- a. Onsite wastewater treatment,
 - b. Package treatment plant operated and maintained under the management of a body corporate,
 - c. Package treatment plant operated and maintained under the control of Selwyn District Council
25. Consideration of the specific treatment and disposal system can occur at the time of any future subdivision.

Water supply

26. The original Darfield scheme was installed in 1971 sourcing water from shallow well(s) installed in the Waimakariri River bed. In August 2009 Council brought a deep bore from Stanwood Holdings which came online on the 24 November 2011.
27. The SH73 Bore is controlled by ECan consent CRC130349 which limits the take to a maximum of 83 L/s, and a maximum daily volume of 4,600 m³/day (average of 53 l/s).
28. Council is actively investigating means of lifting the deferred status on development due to limited water supply. This includes introducing measures such as water demand management and developing new infrastructure.
29. The applicants option of conveying water from Kirwee to service the plan change area is not supported, due to the inefficiency of such conveyance and the potential cost burden on other scheme users (if the infrastructure was to be vested in the Council at some stage in the future).
30. However, Council has constructed a new well between Darfield and Kirwee which if connected to service the plan change area would be considered for vesting to Council.
31. The Plan Change will result in an increase of Lot density, due to the proposed Living 1 zoned land. This increase in density cannot be serviced at this time by the existing water supply network due to capacity limitations.

32. Without having an adequate water supply no development should be able to occur on the Plan Change area. The applicant should be required to either defer development until capacity allows further water connections or the applicant would need to supply an additional water source to Councils satisfaction.
33. In conclusion, at this time an adequate water supply to service this Plan Change is not available. No physical development should be able to occur until an adequate water supply is available.
34. The applicant is aware of this situation and is not proposing that any physical development occur until a water supply is available.

Stormwater

35. The applicants assessment identifies that stormwater is to be disposed of to ground.
36. Stormwater disposal to ground is appropriate and is supported.
37. In conclusion, there are no issues identified with stormwater disposal that mean that the Plan Change is not appropriate.

Contributions

38. Developer contributions for water supply will need to be paid as detailed in the Councils Long Term Plan.
39. In terms of sewerage contributions, a variety of solutions including those proposed in this report are being considered for Darfield's future sewage treatment and disposal requirements. The "current" future solution for individual properties in Darfield are individual on site treatment and disposal solutions. The Council has been mindful that a reticulated network discharging to a centralised treatment and disposal site may also be a future option.
40. Accordingly, a specific note will be placed on each property file and recorded on LIM reports to advise of possible future options and contributions to be collected in the future should a township scale sewer scheme be constructed. Council will develop a high level costing of a reticulated sewer scheme for Darfield and development contribution calculation. A LIM note regarding sewage connection charge will be advanced.

41. Any contributions will be limited to a 'top-up' cost to allow for reasonable expenses to be recovered above that which is provided by this proposed subdivision. It is acknowledged that contributions toward reticulation and land costs etc. will be potentially reduced depending on what is provided and agreed with the developer at the time of subdivision.
42. As previously stated one option is for the sewage treatment system to be built on Council owned land which will require compensation to the Council from the developer. This would need to be subject to specific agreement with the Council. Any such agreement is separate to this Plan Change process.
43. In conclusion, contributions will be payable when any development occurs.

Submission Assessment

44. I have read through the submissions received on PC24. There were no submissions for or against on the proposed provision of water services.

Overall Conclusion

45. Overall, there are some serious servicing constraints that will affect the ability of this land to be developed, in the short term.
46. There is currently no available water supply to service the more intensive L1 land. No development should be able to take place until an adequate water supply is provided for. The applicant is aware of this situation.
47. The wastewater servicing approach the applicant is proposing is currently not acceptable and the Council at this time would not take over the system proposed. It is considered that there are feasible options for wastewater servicing, and this may include providing for the treatment and disposal area on either the application site, or the adjacent Council land. It may also be feasible, depending on the final lot sizes, for on-site servicing to be provided. It is important that the Plan Change and the ODP does not unnecessarily limit future servicing options.

Resource Management Act 1991

Proposed Plan Change 24 to the Selwyn District Plan

Silver Stream Estates Ltd, Cardale/Mathias Streets Darfield

Technical Report on Reserves and Open Space

To:	Hearings Panel
From:	Mark Rykers, Selwyn District Council
Date:	13 December 2012

This report has been prepared under Section 42A of the Resource Management Act 1991. The purpose of the report is to assist Selwyn District Council's Hearing Commissioners to evaluate and decide on submissions on provisions in Plan Change 24 to the partially operative Selwyn District Plan by providing expert advice on technical matters. The report does not make recommendations on submissions but the information and conclusions contained within it may be used by planning officers as a basis for making recommendations on submissions. This report should be read in conjunction with the planning officer's report and any other relevant reports identified.

1. REPORT CONTENT

- Section 1: Report Content
- Section 2: Introduction
- Section 3: Background Information
- Section 4: Plan Change Overview
- Section 5: Assessment of Submissions
- Section 6: Conclusions

2. INTRODUCTION

2.1. My name is Mark Rykers. I am employed as the Asset Manager Open Space and Property at Selwyn District Council. I have been asked to prepare a report commenting on the reserve and open space related matters and associated submissions on Proposed Plan Change 24 (PC24) to the partially operative District Plan (District Plan) lodged with the Council by Silver Stream Estates Ltd.

2.2. PC24, as notified, seeks to alter the zoning of the site in accordance with the proposed Outline Development Plan (ODP) resulting in 45.3ha of Living 1 land, 45.8ha of Living 2A zoned land and 13.3ha of Business 2 zoned land (total 113.4ha). It is noted that the applicant has recently provided the Council with a revised ODP that now excludes the Business 2 zoned area as originally proposed, although the applicants have not provided the Council with updated assessments of environmental effects detailing these changes. The applicants have advised that they intend on formally modifying their ODP and associated assessment through the hearing to address issues raised through the submissions received on the Plan Change. These changes to the Plan Change application are considered to be “with-in scope” as they are attempting to address submissions received and to reduce potential adverse effects. Therefore, this evidence will address the Plan Change as notified, though will note the pending changes to the ODP as identified by the applicant where it is possible to do so.

- 2.3. I hold a Diploma in Parks and Recreation Management from Lincoln University, conferred on me in 1989 and I also hold a Diploma in Horticulture from Lincoln University conferred in 1978. I have been working in the position of Asset Manager Open Space and Property for the Council since January 2007. Prior to that I have held a variety of positions in parks management and planning at Paparua County Council, Christchurch City Council and AECOM Ltd spanning a period of 24 years. I am a member of the New Zealand Recreation Association.
- 2.4. As Asset Manager Open Space and Property, I have been responsible for the strategic planning of Council open space and recreation infrastructure in the district. My role involves responsibility for preparing Activity Management Plans, Strategic Planning documents and other plans necessary to guide the provision of open space, recreation and community facilities for the district's communities. In addition I have input to other strategic planning initiatives undertaken by Council (such as Structure Plans) in relation to open space, recreation and community facility matters.
- 2.5. Part of my role is also to review proposed new developments such as new subdivisions from a reserve and open space perspective. This includes providing advice on the provision and location of reserves within subdivisions in accordance with established policies, legislation, and best practise requirements.

3. BACKGROUND INFORMATION

- 3.1. This evidence draws on any relevant Council strategies, plans and policies related to reserves and open space together with my own knowledge and experience in open space network planning. Where relevant to this plan change these are explained in more detail in this report.

Selwyn District Open Space Activity

- 3.2. Council involvement in the provision of reserves and open space is considered to be an essential component required to promote community wellbeing in the district. Involvement in this activity contributes, in some way, to achievement of many of the community outcomes but, in particular, the development of a healthy community.
- 3.3. Reserves and public open spaces are an important element in both the residential and rural environment providing visual contrast with built form, a sense of spaciousness as well as opportunity for physical exercise, leisure activities and

social contact. They also provide opportunity to conserve and enhance the natural environment, rural landscape character and heritage features.

- 3.4. The main information describing Councils reserves and open space activity is detailed in the Selwyn District Council Long Term Plan 2012/2022 under 'Community Facilities' commencing on Page 23. Additional detailed information is provided in the Community Facilities Activity Management Plan 2011 and more specifically section 7 - Recreation Reserves and section 8 - Township Reserves and Streetscapes. Of particular relevance are the levels of service adopted for provision and distribution of open space. These will be referred to in more detail later in this report.
- 3.5. With the on-going expansion of residential areas in some townships there is a need to provide quality living environments for residents. This has meant provision of additional open space areas to provide a balanced and accessible network that meets the needs of expanding communities. Areas provided may be for neighbourhood play, active sports, visual amenity, public activities, walking/cycling linkages, and retention of heritage, landscape and natural features.
- 3.6. In order to achieve this aim, Council's approach has been to acquire land as subdivision occurs with guidance from Council's Policy for Development Contributions for Reserves as recorded in the Selwyn District Council Long Term Plan 2012/22¹. This policy is under the Local Government Act 2002 (LGA). It explains the Council's rationale for requiring those who develop land to make provision for the increased demand the resulting growth brings about for extra provision of reserves and recreation facilities.
- 3.7. Section 6.7 of Council's Policy on Development Contributions for Reserves gives Council discretion in decision making on acceptance or rejection of land offered for reserve and sets out criteria for guiding decisions on this matter.
- 3.8. The Selwyn District Plan Volume 1 – Townships sets out Objectives Policies and Methods related to Community Facilities (and Reserves). Of particular relevance is Policy B2.3.8 which states: "*Ensure residents in Selwyn District have access to sufficient reserve areas to meet their needs for space for active and passive recreation.*"

¹ Refer to page 228 of the Selwyn District Council Long Term Plan 2012/22

Other Reserves and Open Space Strategies, Plans and Policies

3.9. Other Council reserves and open space information additional to those described above that are considered relevant to this plan change are as follows:

- 2005 Crime Prevention Through Environmental Design Guidelines
- 2005 Ministry for the Environment Urban Design Protocol
- 2007 SDC Physical Activities Strategy
- 2008 & 2011 SDC Playground Assessment and Report
- 2008 Darfield Development Co-ordination Resource
- 2009 SDC Walking and Cycling Strategy and Action Plan
- 2009 SDC Design Guide for Residential Subdivision in the Urban Living Zones
- 2011 NZRA Park Categories and Levels of Service
- 2012 SDC Engineering Code of Practice

4. PLAN CHANGE OVERVIEW

Assessment of Applicant Information and ODP

- 4.1. I have read the application documentation for this Plan Change as it relates to reserves and open space provision. I note that this is not extensive as a result of advice from the Council's former Strategic Asset Manager who indicated that reserve provision should be confined to that needed for pedestrian/cyclist links and an amenity corridor along the water race.
- 4.2. Section 10.3 of the application that deals with Objectives and Policies of the Selwyn District Plan related to reserves states that: *"No specific reserve areas are located on the proposed ODP. This is as a result of consultation with Council, in which Council advised they would prefer that an amenity corridor was extended along the water race, and that for the size of the development a local reserve would not be necessary. It is therefore considered that the existing reserves and recreational areas of Darfield are sufficient to support the proposed residential activity"*.
- 4.3. Further information in the application related to reserves and open space is primarily contained in Appendix 5 – Urban Design Report. Section 3.6 of Appendix 5 – Urban Design Report notes that: *"as a general rule Selwyn District Council aims for residents to have access to a children's playground of a minimum area of 2,000 m²"*

within a 400m radius of their home. In this case, Council (Strategic Asset Manager) has advised that reserve provision should be confined to that needed for pedestrian/cyclist links. The Pemberton Reserve can be used for local play opportunities. This is within an 800 metre radius of most of the proposed L1 area."

In section 5 of Appendix 5 where matters to be included in an outline development plan are discussed further information on reserves is presented. This identifies the following reserve requirements:

- Smaller reserves to provide pedestrian/cyclist links to Pemberton Reserve and between the proposed L1 and B2 zones;
- A possible need for additional links within the subdivision to form a connected pedestrian/cyclist network;
- Provision of a linear reserve along the northern water race (10m wide and 550m long), with potential for future extension in to the former Selwyn Plantation Board block.

- 4.4. A modified Outline Development Plan (received October 2012) has been provided by the applicant since the initial notification. It is understood that this modified plan has been prepared to address concerns raised through the submission process.
- 4.5. The modified ODP indicates the location of a reserve/open space area in the form of a linkage to the existing Pemberton Reserve. The modified ODP does not now show the linear reserve along the northern water race. It is unclear why this is excluded from the plan change area but it is assumed that this is related to the removal of the B2 zone from the plan change where there is no longer a need for a buffer between the proposed L1 and B2 zones (as shown on the original application). The linkage to the B2 land has also been removed from the modified ODP as the B2 zone no longer forms part of the plan change.
- 4.6. The modified ODP indicates a potential reserve/open space area as a walking/cycling connection to the existing Pemberton Reserve on the western edge of the proposed plan change area. This is the only reserve/open space area indicated on the ODP.

Assessment of Darfield Open Space Provision

- 4.7. Council has developed and adopted levels of service for reserve provision to guide acquisition of reserve areas and ensure there is sufficient space to meet recreational and amenity needs. The specific levels adopted as recorded in the Community Facilities Activity Management Plan (2011) are:
- Neighbourhood/Passive Reserves – 1.2 ha per 1,000 population²
 - Sports Parks - 3 ha per 1,000 population³
- 4.8. These are minimum standards that have been derived from benchmarking with similar Local Authorities and assessment against levels of service set out in the NZRA Parks Categories and Levels of Service Guidelines⁴. The common benchmark provision indicated in this document for neighbourhood/passive reserves is 1.0 to 1.75 ha/1,000 residents and for sports parks it is 1.5 to 3.0 ha/1,000 residents.
- 4.9. An assessment of sports park provision in Darfield undertaken as part of developing the Community Facilities Activity Management Plan (2011) indicated that 6.85 ha is available per 1,000 residents which is well above the adopted standard. There is additional land available for development at Darfield Domain and a further 1.9 hectares was purchased in 2011 to cater for future demand as the population grows. The Domain is approximately 2 kms from the proposed plan change area and, as this is in reasonable travelling distance, there is no need for additional sports parks to be provided within the proposed subdivision to service demand.
- 4.10. Neighbourhood/passive reserves are provided to cater for the local recreation needs of communities as well as providing relief from the built environment. They can also serve as linkages between streets and green corridors for flora and fauna. These are an important element in creating a quality living environment for residents. They should ideally be in close walking distance to residences with a 400 to 500 m radius considered appropriate and this is reflected in the performance standard in the Community Facilities Activity Management Plan (2011)⁵.
- 4.11. An assessment of neighbourhood/passive reserves provision in Darfield undertaken as part of developing the Community Facilities Activity Management Plan (2011)

² Refer Table 8-5, Page 8-11 of Community Facilities Activity Management Plan 2011

³ Refer Table 7-5, page 7-13 of Community Facilities Activity Management Plan 2011

⁴ This contains an industry developed and agreed set of park categories and standard level of service framework for NZ

⁵ Refer Table 8-5, Page 8-11 of Community Facilities Activity Management Plan 2011

indicated that there is 4.31 ha provided per 1,000 residents which is a relatively high level compared against the adopted standard. (1.2 ha per 1,000 residents).

However it is noted in both the Community Facilities Activity Management Plan and the Playground Assessment and Report (2008) that these reserve areas are not evenly distributed in Darfield.

Comments on Open Space Requirements for Plan Change 24

- 4.12. The Council's Strategic Asset Manager had previously indicated to the applicant that, in her opinion, reserve provision should be confined to that needed for pedestrian/cyclist links and a corridor along the water race. I have now had an opportunity to review this position in consideration of Council plans and policies and principles that guide good urban design outcomes as reflected in the Urban Design Protocol (MfE) to which Selwyn District Council is a signatory. I have also had the opportunity to consider open space requirements for the revised ODP received in October 2012.
- 4.13. In my opinion the area of land proposed for residential development and, in particular the proposed Living 1 zone containing 401 additional households, needs to be serviced by adequate areas of public open space. This is required within the proposed plan change area to meet Council's standards for reserve/open space distribution and provision levels. Furthermore sufficient open space is required to meet local community recreation needs and appropriate urban design outcomes as envisaged in the Council's Design Guide for Residential Subdivision in the Urban Living Zones (2009)⁶.
- 4.14. In determining the size and location of reserves/open space to meet the needs of this proposal I consider the following factors to be relevant:
- The overall level of neighbourhood/passive open space provision already available in Darfield;
 - The proximity of existing reserves/open space areas to the proposed plan change area;
 - Reserves within the proposed plan change area should contribute to a network of varied open spaces in the wider neighbourhood and the Township;
 - Connections for walking/cycling within the subdivision and linkage to the surrounding neighbourhoods to provide a network of accessible public spaces;

⁶ See section 4.2 - Type, location and size of open spaces

- Existing site features that may have heritage, landscape or ecological values;
- The size of neighbourhood parks should be consistent with the standards adopted by Council and as stated in the Community Facilities Activity Management Plan (2011), the Policy for Development Contributions for Reserves and the Design Guide for Residential Subdivision in the Urban Living Zones (2009). The indicative size is between 2,000m² and 3,000 m²; and
- The positioning of reserves within the proposed residential area should take cognisance of the criteria and the 'good practice' layout examples shown in section 4.2 of the Council's Design Guide for Residential Subdivision in the Urban Living Zones (2009).

4.15. Having given regard to the above factors I consider that the following reserve/open space requirements would be appropriate to service the proposed plan change area:

- An extension to the existing Pemberton Reserve on the western edge of the proposed plan change area of around 1,100m². This would provide a total reserve area of 2,095m² and would provide a useable area of open space large enough to locate a small playground if required. This reserve would also serve as a pedestrian/cyclist linkage to the adjacent residential area to the west.
- Provide a centrally located reserve within the proposed Living 1 zone of 3,000m² in size. This would be large enough to accommodate a playground with space for casual recreation. The preferred location is at the junction of the collector and local road indicated on the ODP to ensure it has good visual surveillance, creates a focal point and is within easy walking distance for most local residents. This reserve should have connections to surrounding cul-de-sacs as required to provide pedestrian/cyclist access.
- Additional links within the subdivision to form a connected pedestrian/cyclist network. These should be identified on the ODP. Further comment on this matter will be made in the Technical Report on Transport.
- Provision needs to be made for future servicing of the water race adjacent to the northern boundary of the ODP area. This would be by way of a continuous strip along the northern boundary of the OPD area that can provide future access to the water race as well as providing an amenity corridor. It is recommended that the strip is a minimum of 6 metres in width from the bank of the water race. This would be a Local Purpose Reserve for water race purposes.

- No reserve/open space areas (apart from those required to form the pedestrian/cyclist network and to service the water race) should be provided in the proposed Living 2A zone. The sections within this zone are large enough to provide for the local recreational needs of those residents and provide sufficient space for planting and landscape development that will contribute to the overall amenity of the subdivision.

5. SUBMISSION ASSESSMENTS

5.1. I have been requested to provide comments on 3 submissions on PC24 that have raised issues on reserve/open space matters. The details relating to these submissions are attached as Appendix A to this Report. This information should be read in conjunction with my comments to follow.

5.2. Mary Ireland – Submission 12

This submitter supports PC24 but raises an issue related to the provision of reserves/open space in the development. Specifically the submitter feels that ‘green space’ should be incorporated into the development and that the space and visibility of the existing reserve in Pemberton Place is inadequate. I concur with the views of the submitter on this matter and believe that the issues raised can be addressed by providing additional open space at both the reserve in Pemberton Place and in a central location within the proposed Living 1 zone. I refer you to my comments in section 4 of this report.

5.3. Darfield Township Committee – Submission 13

The submission from the Darfield Township Committee requests that adequate green space for recreation purposes and passive reserves is included in the proposed residential subdivision. I concur with the views of the submitter on this matter and believe that the issues raised can be addressed by providing additional open space at both the reserve in Pemberton Place and in a central location within the proposed Living 1 zone. Further passive spaces may be provided as part of linkages for pedestrians/cyclists. I refer you to my comments in section 4 of this report.

5.4. Donald Chambers – Submission 26

The submitter opposes the plan change and seeks Council to reject it. However the submitter raises issues in regard to provision of open spaces and mentions that there is no area for recreation in the plan. I concur with the views of the submitter on this matter and believe that the issue raised can be addressed by providing additional open space at both the reserve in Pemberton Place and in a central location within the proposed Living 1 zone. I refer you to my comments in section 4 of this report.

6. CONCLUSIONS

- 6.1. I have reviewed the information provided in the application for PC 24, including the modified ODP, and considered the submissions received related to reserves and open space. It is my opinion that the application in its current form does not meet the minimum standards required for reserve and open space provision and will not promote good urban design outcomes as envisaged in the Council's Design Guide for Residential Subdivision in the Urban Living Zones (2009). Therefore, in my opinion it will not adequately service the residents within the proposed plan change area or create a quality living environment.
- 6.2. Good urban design and parks planning practice indicates that a network of reserves and public open space is required that has a variety of spaces and uses for local recreation activities as well as contributing to the landscape character and visual amenity of the area. The provision of well-located reserves and access ways helps to create safe and convenient walking and cycling routes for residents.
- 6.3. In my opinion additional reserve and open space areas are required for the proposed development in PC24 and I have outlined these requirements in section 4 of this report. In summary this includes the following:
 - An extension to the existing Pemberton Reserve on the western edge of the proposed plan change area of around 1,100m² to provide a total reserve area of 2,095m².
 - Provide a centrally located reserve within the proposed Living 1 zone of 3,000m² in size in the vicinity of the junction of the collector and local road indicated on the ODP.
 - Additional links within the subdivision to form a connected pedestrian/cyclist network. These should be identified on the ODP.

- Provide a minimum 6 metre wide strip along the northern boundary of the OPD area adjacent to the existing water race that can provide future access to the water race for servicing and to provide an amenity corridor. This would be a Local Purpose Reserve for water race purposes.
- No reserve/open space areas (apart from those required to form the pedestrian/cyclist network or service the water race) should be provided in the proposed Living 2A zone.

6.4. I have enclosed a copy of the modified ODP and shown on this the possible locations for the reserves mentioned above to assist the commissioners in deliberating on this matter. This is attached as Appendix B to this report.

6.5. On that basis I consider that the Plan Change will need to be modified to address the issues related to reserve and open space provision as discussed and identified in my report.



Mark Rykers

14 November 2012

ASSET MANAGER OPEN SPACE AND PROPERTY

Appendix A – Submissions Considered in this Report

Submission 12 – Mary Ireland


110630041

Resource Management (Forms, Fees, and
Procedure) Regulations 2003

Schedule 1

Form 5
Submission on publicly notified Plan Change
Selwyn District Plan
Clause 6 of First Schedule, Resource Management Act 1991

To Selwyn District Council
2 Norman Kirk Drive
PO Box 90
Rolleston
Christchurch 7614
FAX: 03-347-2799



1. Full name of submitter: Mary Ireland

This is a submission on the following proposed Plan Change:
Private Plan Change 24 (name and number of Plan Change).

2. The specific provisions of the proposal that my submission relates to are:

..... (give details).

3. *My submission in SUPPORT / ~~OPPOSITION~~ is: is given because of
the following

1. It gives consideration to the constructive
planning for the growth of Darfield.

2. The roading pattern takes into account
positive connection to the Township and
its rural surrounds.

3. Takes an overall consideration of the
existing residential + Business status of
the immediate area + has liaised with
neighbouring business as to possible relocation.

however.

I do feel that green space should be
incorporated into the development. The
green space in Pemberton Drive is not appropriate

*Include whether you SUPPORT or OPPOSE specific parts of the plan change or wish to have them amended; and the reasons for your views. Continue on a separate sheet if necessary.

being at the end of the cul-de-sac a lacks
visability.

Ph: 03 3472800 Email: Page 1 of 2

4. I seek the following decision from Selwyn District Council:

That this private Plan change
be accepted and that staff
work with developers to achieve
a quality development in this
town of Darfield.

(Give precise details, including the nature of any change sought. Continue on a separate sheet if necessary.)

5. ~~I wish~~ / DO NOT WISH to be heard in support of my submission (delete as applicable)
6. If others make a similar submission, I will consider presenting a joint case with them at a hearing
(delete if you would not consider presenting a joint case)

7. Mary Ireland 30/6/2011
Signature of submitter (or person authorised to sign on their behalf) Date

8. Address for service of submitter: 30 Teirin Place
Darfield

Telephone: 3188649 Fax: 3188648

Email: mary.robe@clear.net.nz

Contact person: Mary Ireland Title (if appropriate)

Proposed Plan Change 24 – Silver Stream Estates Ltd, Darfield: Technical Report On Reserves/Open Space Matters

14

Submission Points re Plan Change 24 (Silverstream) from the Darfield Township
Meeting 20 June 2011

1. Accessway needed to proposed B2 land from SH73 to keep heavy traffic out of the residential area of the township.
2. Adequate green space for recreation purposes and passive reserves to be included in the proposed residential subdivision.
3. The movement of traffic on the Mathias/Cardale Street intersection should be carefully considered. Consideration to be given to a roundabout at this intersection. Width of road needs to be adequate and pull-off lanes should be provided.
4. An acoustic fence could be visually unappealing. Could the blocking of sound be done solely through landscaping and bunds.
5. Adequate road widths are needed in the subdivision because of the number of residential sections proposed. Pull-off zones for carparking should be provided to prevent parked cars blocking the roadway.
6. The transfer of the B2 zoning as suggested is logical and would create new opportunities for businesses to come to Darfield.
7. The proposed roading pattern encourages good connectivity with the Darfield township and the surrounding rural area.
8. The proposed subdivision provides for a good mix of section sizes to cater for different sectors of the community. Providing higher density housing closer to the existing township is a sensible use of land.
9. Darfield is a great place to live and demand for housing in Darfield has increased due to the effects of the Canterbury earthquakes. An increase in population is also signalled by the Selwyn District Council revised growth model.
10. It should be noted that Silverstream representatives have presented five times to the Darfield Township Committee over the past few years.
11. In 2007/08 the Darfield Township committee worked with Janet Reeves to prepare a planning resource document to assist with the future growth and development of Darfield. Silverstream were given a copy of this document to assist with their planning.


Chairman, Darfield Township Committee

29-6-11
Date

Resource Management (Forms, Fees, and
Procedure) Regulations 2003

Schedule 1

4. I seek the following decision from Selwyn District Council: Make a balanced
decision

**Give precise details, including the nature of any change sought. Continue on a separate sheet (if necessary).*

5. I WISH / ~~DO NOT WISH~~ to be heard in support of my submission *(delete as applicable)*

6. ~~If others make a similar submission, I will consider presenting a joint case with them at a hearing~~
(Delete (if you would not consider presenting a joint case))

7. *fjm* 29-6-4
Signature of submitter *(or person authorised to sign on their behalf)* Date

8. Address for service of submitter: 900 Esplanade Road RD Delphi

Telephone: 03 3188208 Fax: 03 3187137

Email:

Contact person: Paddy McEvoy Title Chairperson *(if appropriate)*

Submission 26 – Donald Chambers



110761044

Resource Management (Forms, Fees, and Procedure) Regulations 2003

Schedule 1

Form 5
Submission on publicly notified Plan Change
Selwyn District Plan

Clause 8 of First Schedule, Resource Management Act 1991

To Selwyn District Council
2 Norman Kirk Drive
PO Box 90
Rolleston
Christchurch 7614
FAX: 03-347-2799

1. Full name of submitter: Donald Leslie Chambers

This is a submission on the following proposed Plan Change:
No 26 Silverstream Darfield (name and number of Plan Change)

2. The specific provisions of the proposal that my submission relates to are: re-zoning of land, traffic management, re-provision of open spaces, siting of residential area (give details)

3. *My submission in ~~support~~ OPPOSITION is: Plan change not needed as enough land available now. The planned residential area will be remote and not connected to main village and will be bordered on two sides by commercial areas. Mathias street to be primary entrance to both residential and commercial zones creating a dangerous mix of traffic. The surrounding streets are not designed for amount of traffic. There is no time frame for changing Candia street business area to ~~residential~~ residential and with the planned agricultural areas to be built the developers overlooking road noise and traffic problems. The 24hr operation of the business zone will create noise, lighting and traffic problems for the residential area. No area for recreation in plan.

*Include whether you SUPPORT or OPPOSE specific parts of the plan change or wish to have them amended; and the reasons for your views. Continue on a separate sheet if necessary.

4. I seek the following decision from Selwyn District Council: To reject the whole plan change

(Give precise details, including the nature of any change sought. Continue on a separate sheet if necessary.)

5. I ~~WISH~~ DO NOT WISH to be heard in support of my submission (delete as applicable)
6. If others make a similar submission, I will consider presenting a joint case with them at a hearing
(delete if you would not consider presenting a joint case)

7. D L Chambers 28-6-2010
Signature of submitter (or person authorised to sign on their behalf) Date

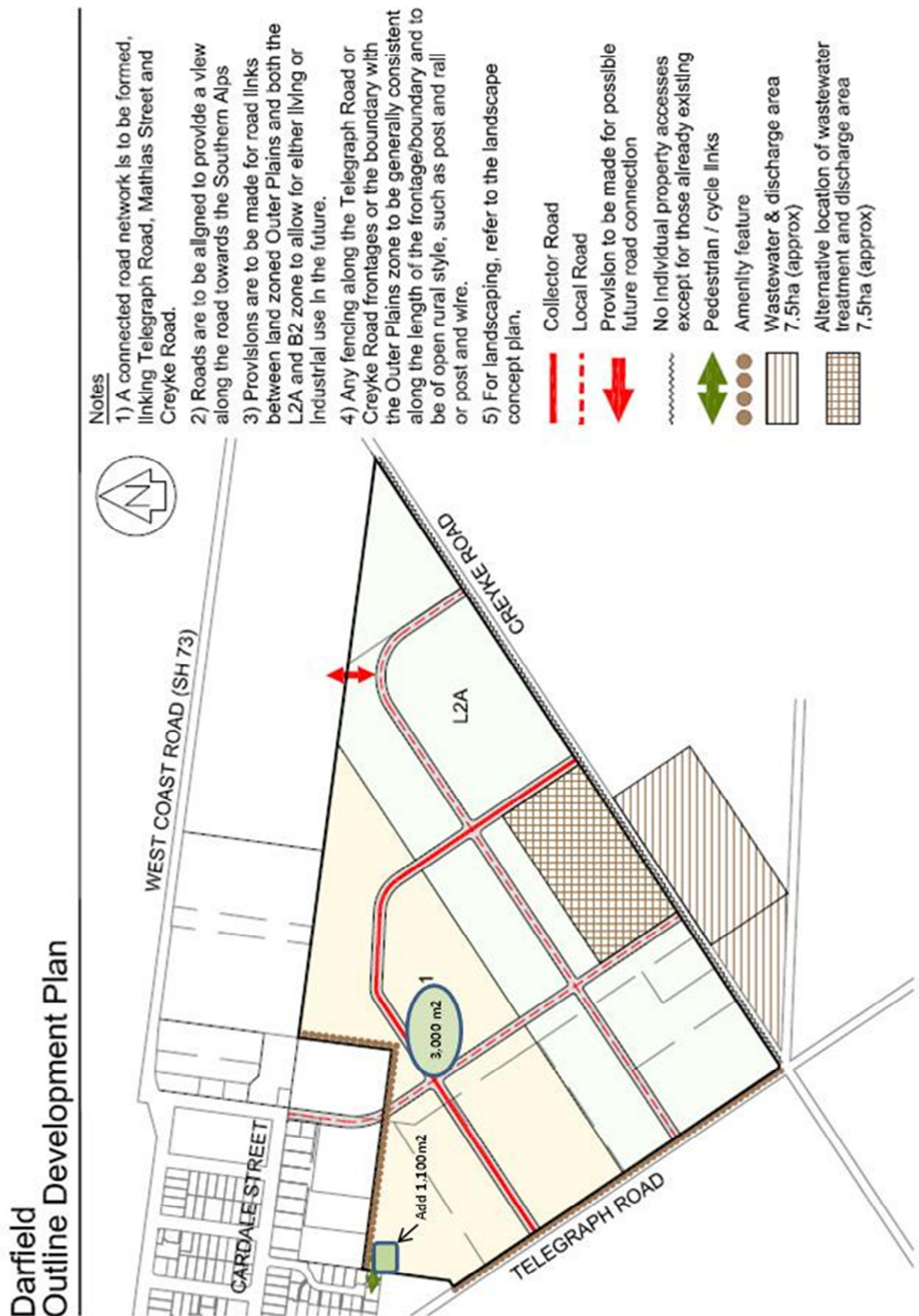
8. Address for service of submitter: PO Box 72 Darfield 7541

Telephone: 3187527 Fax: —

Email: J.O.L.NODD @ xtra.co.nz

Contact person: Don Chambers Title — (if appropriate)

Appendix B – ODP Showing Possible Locations for Additional Reserves



IN THE MATTER OF The Resource Management Act 1991

AND

**IN THE MATTER OF Proposed Plan Change 24,
 Silverstream Investments Ltd**

**EVIDENCE OF RUSSELL CHARLES MALTHUS
NOVO GROUP LIMITED**

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SELWYN DISTRICT COUNCIL PLAN CHANGE 24
SILVERSTREAM INVESTMENTS LTD
ENVIRONMENTAL HEALTH ASSESSMENT

INTRODUCTION

1. My name is Russell Charles Malthus, and I am Senior Environmental Health Consultant with Novo Group Limited, a Christchurch-based Traffic Engineering and Planning consultancy. I am a qualified Environmental Health Officer with over thirty years' previous employment by the Christchurch City Council. As a consultant in private practice since leaving the Council in 2004, I have provided expert advice to territorial authorities and private clients on the assessment of environmental health effects of land use proposals, including Plan Changes.
2. I have been engaged by the Selwyn District Council to assess proposed Plan Change 24 in terms of its effectiveness to address potential environmental health effects issues, including reverse sensitivity effects to established land uses adjoining the Plan Change area.
3. I have read and am familiar with the Code of Conduct for Expert Witnesses in the Environment Court Practice Note. I agree to comply with this code of conduct in giving evidence to this hearing and have done so in preparing this written brief. The evidence I am giving is within my area of expertise, except where I state I am relying on the opinion or evidence of other witnesses. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed. I understand it is my duty to assist the hearing commissioner impartially on relevant matters within my area of expertise and that I am not an advocate for the party which has engaged me.

SCOPE

4. The purpose of this evidence is to inform the Council Officers' Section 42A report for the hearing of submissions to Plan Change 24.
5. In preparing this evidence I have examined the Plan Change proposal with appropriate regard to existing provisions of the Selwyn District Plan and the Canterbury Natural Resources Regional Plan (NRRP), relevant statutes and regulations, relevant standards guidelines, and relevant provisions in other District Plans.
6. The conclusions of this evidence include my recommendations on additional mitigation and amendments to the Plan Change to achieve appropriate levels of amenity and reverse sensitivity protection in the various land use zones.

BACKGROUND

7. In 2010, prior to the final lodgement of the application, I was engaged by the Council by arrangement with the applicant to provide an assessment of potential environmental health effects issues, including reverse sensitivity effects to land uses adjoining the Plan Change area, in lieu of the applicant's own assessment. I

understand that my report was used by the applicant to help define the Living/Business and Living Rural Buffer Zones referred to in the Plan Change provisions, ODP and Landscape Concept Plan (as notified), which section 10.4 of the Section 32 analysis explains are intended to mitigate adverse amenity effects and reverse sensitivity effects.

8. My report was not included in the Plan Change documents, but I am aware that it may be referred to by the applicant in these proceedings. For the information of all parties at the hearing, the report is appended to this evidence as Attachment 1 and I will refer to it in this evidence.
9. I understand that the amended Outline Development Plan (ODP) that has recently been submitted to the Council by the applicant represents the revised zoning layout that is now proposed. For completeness, my evidence addresses both the notified and amended ODPs. I note that the applicant has not made any changes to the notified Plan Change provisions, Landscape Concept Plan or the Section 32 analysis to support the amended ODP, and I would anticipate further information will be provided in their submission to the hearing.
10. I wish to note that the conclusions and recommendations of this evidence are not entirely the same as in my previous report, because the applicant's recent revision of the ODP has required my reconsideration of a number of matters. The revised layout also affects the relevance of a number of submissions, which I will address.
11. I wish to also advise that I have recently revisited the Plan Change area, to confirm that there have been no significant changes in the nature of the land use activities or topography.

EFFECTS ISSUES

12. The notified ODP and the amended ODP would locate the proposed Living 1 and 2A zones adjacent to Business 2 and Outer Plains Rural zones. There is potential for established or permitted activities in Business and Rural zones to cause adverse effects in the proposed Living 1 and 2A zones, from the following factors:
 - i. Noise and vibration emissions
 - ii. Hazardous substances storage and use
 - iii. Light spill and glare
 - iv. Air discharges, including fugitive dust and odour, and drift from crop spraying
 - v. Electromagnetic radiation from cellphone towers
 - vi. Waste generation, storage and disposal
13. Any of the above effects could in turn cause “reverse sensitivity” effects¹ on established or potential business and rural business activities that can lawfully operate in the adjacent Business 2 and Rural Outer Plains zones.
14. The potential for shooting noise effects from the Darfield Shooting Centre on the south corner of Telegraph Rd and Creyke Rd must also be considered.

¹ Reverse sensitivity” refers to an effect on established business and rural activities if new residents consider themselves to be adversely affected by those activities. Guidance can be found on the Ministry for the Environment’s Quality Planning website, and at Ben Gully lawyers website.

15. There is also potential for odour and spray drift from the Waste Water Treatment Plant and associated effluent irrigation area (WWTP) that is shown in the amended ODP to cause adverse effects in the proposed Living 1 and 2A zones.
16. There is also potential for health of future residents to be affected by the change of use of greenfields land, if soils have been contaminated by the presence or use of hazardous substances materials from current and historical rural land uses. This will require the land to be carefully examined in accordance with the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 ("the NES"), which took effect following the notification of the Plan Change.
17. I have reconsidered these effects issues for both the notified and revised ODPs with reference to my previous report, and with regard to the provisions of the Selwyn District Plan.

DISTRICT PLAN PROVISIONS

Reverse Sensitivity Policies

18. The following policies of the Selwyn District Plan specifically require potential reverse sensitivity effects to be addressed, where new sensitive activities are planned to be developed in the Plan Change 24 area in the vicinity of established activities in the existing Business 2 and Rural Outer Plains zones:
 - **Townships Volume:**
Part B3, People's Health, Safety and Values, Policies B3.4.37 and B3.4.38
Part B4, Growth of Townships Policy B4.3.21
 - **Rural Volume:**
Part B3, People's Health, Safety and Values, Policy B3.4.19
19. Plan Change 24 does not propose any changes to these policies or the objectives they support, and I do not consider that any changes need to be made.

Rules Controlling Environmental Effects

20. The Townships and Rural Volumes of the District Plan contain rules which control noise emissions and light spill, hazardous substances and other environmental health aspects of land use in the various land use zones in the District. A list of the rules is presented in Attachment 2 of this evidence for reference. Plan Change 24 does not propose to change any of these rules.
21. I would expect the rules to achieve a high level of consistency in amenity where the proposed Living zones interface with each other, or with other Living zones because land uses in those zones will be similar; and the same District Plan rules for noise, glare and hazardous substances apply. Those current rules are not proposed to be altered by the Plan Change.
22. The rules that apply to the Business 2 zones include provisions that are intended to protect reasonable residential amenity in adjacent Living Zones. However my previous report identified some areas in the notified ODP where the current rules for the Business 2 zone which are intended to control Offensive Trades, noise and hazardous substances would not, in my view, provide adequate protection to the

proposed Living 1 zone from land uses in the proposed extension of the Business 2 zone east of Mathias Street.

23. The rules that apply to the Rural Outer Plains zone also include provisions that are intended to protect reasonable residential amenity in adjacent Living Zones. Normal primary production activities which are temporary and/or intermittent in nature, such as crop harvesting, crop irrigation, general use of farm machinery and crop protection, are exempted from the noise limits by Rural Rule 9.16.3.1 provided the activity complies with Section 16 of the RMA (i.e. duty to avoid unreasonable noise by adoption of the best practicable option). This exemption allows normal farming activities flexibility to operate in balance with local circumstances.
24. The following section reviews my previous assessment of the notified application and the revised ODP, and examines the effectiveness of the District Plan rules and the applicant's proposed mitigation at the interfaces of the proposed Living 1 and 2A zones with the Business 2 and Rural Outer Plains zones.

REVIEW OF RULES AND PROPOSED MITIGATION

- **Proposed Living 1 zone / Extended Business 2 zone interface**

25. The notified zoning and ODP propose to extend the existing Business 2 zone further eastward from Mathias Street, and to change the existing Business 2 zoning on the south side of Cardale Street to Living 1. My previous report examined the suitability of the current Business 2 zone rules to control potential adverse effects on activities in the proposed Living 1 zone to the south of the extended zone and to the south of established business activities on the south side of Cardale Street.
26. For the reasons set out in paragraphs 24 and 25 of my report, I consider that Business Zones Activities Rule 13.1.6.2 (a) provides insufficient certainty that Health Act Offensive Trades would be subject to assessment as Discretionary Activities. There is also potential for an Offensive Trade to escape scrutiny because a resource consent had been granted for any aspect of the activity. To avoid these uncertainties, I recommend that the rule should be amended to specifically list the Health Act Offensive Trades (except for bottle collection, which has low potential for offensiveness).
27. For the reasons set out in paragraphs 42 to 44 of my report, I consider that Business Zone Hazardous Substances Rule 20.1.1.1 should be amended so that the more stringent quantity limits for the Business 1 zone apply in the proposed Business 2 Zone. The limiting of the potential quantities that could be held on any property in the Business 2 zone extension would give better effect to the control of hazardous substances envisaged by Business Zone Policies B3.2.3, as discussed in paragraphs 38 and 39 of my report.
28. For the reasons set out in paragraph 55 of my report, I recommend that Living Zone Rule 10.6.1 and Business Zone Rule 22.14 should be amended to state that noise shall be measured and assessed in accordance with NZS 6801:1991 *Measurement of Sound*, and NZS 6802:1991 *Assessment of Environmental Sound*; and construction noise shall be controlled in accordance with NZS 6803:1999 *Acoustics – construction noise*.

29. I wish to note that these amendments would apply only to the extension of the Business 2 Zone to the east of Mathias Street that is proposed in the notified ODP. While the recommendations in paragraph 103 of my report sought to apply these amendments to the balance of the existing Business 2 Zone to the west of Mathias Street in the interests of consistency, I now realise such changes cannot be applied to land outside the Plan Change area.

30. Referring to paragraphs 63-66 and paragraph 103 of my previous report, I note that some of my recommendations for acoustic fences and setbacks to mitigate effects of established activities in the existing Cardale Street Business 2 zone have been adopted in the notified Plan Change on pages 14 and 15. However, the adopted provisions are not obvious in the notified ODP, and should have also been included there to provide certainty.

- **Proposed Living 1 zone / Existing Business 2 zone interface**

31. My recommended amendments and mitigation in paragraphs 25 to 30 above would not apply to the amended ODP, as it does not propose to change the existing boundaries of the Business 2 zone.

32. The applicant has not submitted any information with the amended ODP to show how adverse effects at the interface of the proposed Living 1 zone and the existing Business 2 zone at Cardale St and Mathias St would be addressed. Established businesses in the B2 zone are described in paragraphs 26 and 51 of my previous report.

33. Figure 1 below shows the relationship of the proposed Living 1 zone to the existing Business 2 zone.

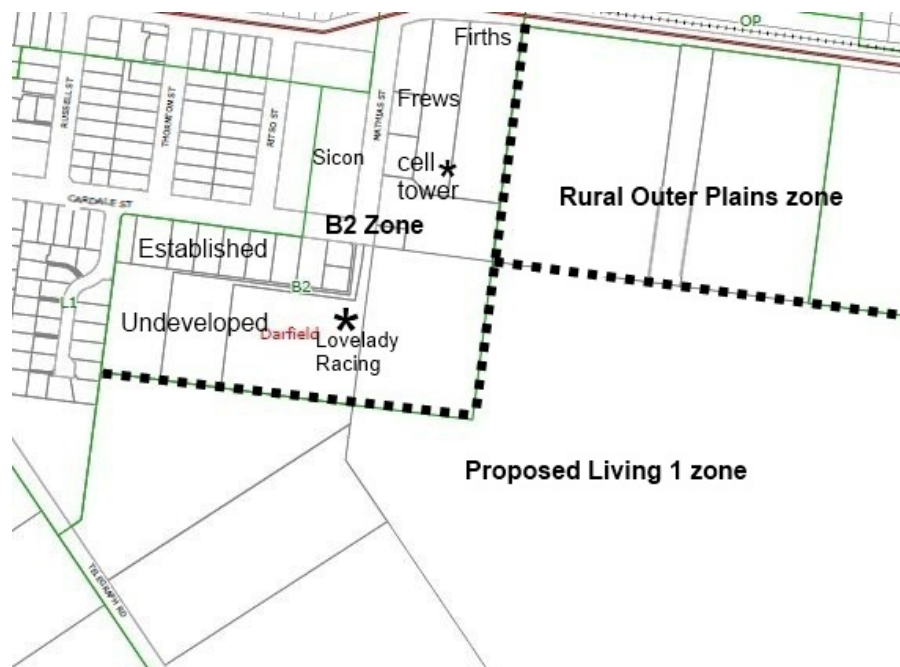


Figure 1 Business 2 zone/Proposed Living 1 zone relationship

34. Referring to Figure 1, any potential adverse effects on the proposed Living 1 zone from established activities in the Business 2 zone would be mitigated satisfactorily by the distances of 130 – 150 m between those activities and the proposed Living

zone boundary. This assumes that all established activities are required to comply with the current rules for the Business 2 zone for noise, lighting glare, and hazardous substances, as no resource consents have been granted by the Council to permit activities that do not comply with those rules.

35. The balance of the Business 2 zone to the south and east of the established activities is currently undeveloped. It is assumed that any potential business activities would also be required to comply with the current rules for the Business 2 zone for noise, lighting glare, and hazardous substances. Notwithstanding this, business activities that are located close to residential areas have potential to cause adverse effects from noise, glare, hazardous substances, fugitive odour and dust discharges, and litter, in particular when management practices or control processes fail for any reason. Also, the District Plan anticipates that 'heavy' industries may locate in the Business 2 zone, and such industries may have greater potential to cause adverse effects.
36. In the absence of any other information from the applicant to support the amended ODP, I recommend that a minimum setback of 40 m should apply between the B2 zone boundary and any dwelling in the Living 1 zone. This is consistent with the Living/Business zone buffer that is shown in page 1 of the notified ODP Planting Concept Plan.

- **Proposed Living 1 and 2A zones/Rural Outer Plains zone interface**

37. At the interface with the Rural Outer Plains zone, effects of general rural land use activities will be mitigated by noise standards in Rule C9.16.1, which applies noise limits at Living Zone boundaries that are consistent with currently accepted guidance for protection of sleep and for the protection of reasonable residential amenity in NZS 6802:2008 Acoustics – Environmental Noise. The lighting provisions in the Rural Volume of the District Plan are also consistent with residential amenity.
38. While some temporary or seasonal farming activities are not fully controlled by the noise and lighting performance standards (refer Rural Activities rules C9.16 and C9.18), I consider that their effects would be mitigated by requiring a buffer of at least 20 m to be maintained between dwellings in the proposed Living zones and the closest boundary of the Rural Open Plains zone. This is equivalent to the buffer provided by public roads, i.e. Creyke Road and Telegraph Roads. Retaining the shelter belts and roadside tree plantings on those roads would provide additional useful mitigation of dust, light and visual connection between residential and rural land, and possibly some subjective reduction in noise awareness.
39. The 20 m buffers would also contribute to the 30 m separation required by Rural Zone Rule 7.1.1.2(b) from any Living zone boundary for the permitted storage of agrichemicals, fumigants and vertebrate toxic agents in the Rural Outer Plains zone.
40. In terms of the Canterbury Natural Resources Regional Plan (NRRP) the 20 m buffer would also contribute to the minimum distance of at least 30 m from any residential area that is required under Rule AQL 71 to be maintained when crop spraying unless mitigation is provided by shelter belts. It would also contribute to

the mitigation of odour from the spreading of animal effluent and solid animal waste under rule AQL 65.

- **Darfield Shooting Centre**

41. Published information on the relative noise levels from firearms indicates that shotgun noise is likely to be the only significant generator of noise from the Darfield Shooting Centre (DSC) in terms of potential effects to the Plan Change area. No traffic related noise effects are expected, as vehicle parking is approximately 200 m from the closest existing rural dwelling in the Plan Change area, at 193 Creyke Rd.
42. In paragraphs 74 to 81 of my previous report, my assessment of noise from the DSC concluded that the noise effects Plan Change area would be no more than minor, and no special mitigation measures or changes in the noise rules are necessary to address effects. This was on the basis that recorded levels at the notional boundary² of 193 Creyke Rd would comply with the daytime limits in Rural Rule 9.16, i.e. 55 dBA L10 and 85 dBA Lmax for noise received at a Living Zone, and would be consistent with noise that would be received from any permitted farming activity.
43. However if this Plan Change is approved, the limits in Rural Rule 9.16 would strictly apply at the Living 2A zone boundary on Creyke Rd and Telegraph Rd, and the measurements indicate that levels would exceed those limits at that location. It should also be noted that gunfire is not exempted from the Rural zone noise rules.
44. The measurements indicate noise levels could exceed 55 SNL, the limit of acceptability for noise received within new residential areas from established clay target shooting that is recommended in Appendix A5.11 of the document *Clay Target Shooting - Guidance on the Control of Noise* published by the UK Chartered Institute of Environmental Health³. (SNL or Shooting Noise Level index is the logarithmic average of the 25 highest LAFmax events recorded in 30 minutes of a shoot).
45. The measurements indicate that the notional boundaries of new dwelling sites in the proposed Living 2A zone should be set back at least 500 m from the DSC to ensure that noise does not exceed 55 SNL. A 500 m setback would ensure that noise from the DSC would be less than 55 SNL across the balance of the Plan Change area. Measurements and observations at Cardale Street at the far north side of the area indicate that the noise would still be audible throughout the area, however it can be expected that the progressive development of residential properties would attenuate noise and reduce audibility across the area.
46. I recommend that the requirement for a 500m setback from the Darfield Shooting Centre for notional boundaries at new dwelling sites should be included in the ODP for Plan Change 24. Alternatively, acoustic barriers could be incorporated in any subdivision design provided they are supported with certification by an experienced

² A line 20m from any side of a rural dwelling or the legal boundary where this is closer to the dwelling. (Selwyn District Plan Rural Volume Part D)

³ http://www.cieh.org/policy/clay_target_shooting.html

acoustician that the barriers will attenuate noise from the DSC to 55 SNL at any residential building site.

- **Waste Water Treatment Plan (WWTP)**

47. Referring to the revised ODP, I understand that the Council may support the WWTP for the Plan Change area being located on the Council's designated land on the south side of Creyke Rd, as that site has sufficient space for future growth that would accommodate liquid waste from other parts of Darfield.
48. However if the Council does not support this, then the applicant should either:
- submit technical evidence to show that the WWTP and associated irrigation area for the Plan Change can be accommodated within the Plan Change area, or
 - set minimum lot size of 800 m² for the L1 zone which would allow septic tanks to be installed on individual lots as permitted activities under the NRRP.
49. If a WWTP and spray irrigation is the preferred option, minimum setbacks from existing or potential dwelling sites will be necessary to avoid/mitigate adverse odour/overspray effects. Referring to the recent decision on the Waiararapa Combined District Plan in Attachment 3 of this evidence, it would appear that minimum dwelling setbacks could be between 25 m and 150 m from the perimeter of a spray disposal area depending on the e-coli concentrations in the waste stream, the design of spray systems, and wind conditions. Also, minimum irrigation areas will need to be determined based on the quality of the effluent and the daily rate, volume and depth of irrigation, on similar principles to what has previously been approved in ECan's discharge consent CRC100960 for a 40-lot subdivision, but with consideration to the larger scale of the development that the Plan Change would allow. These distances and areas may be easily achieved if the WWTP establishes on the Council's designated land, however it is not clear that this would be achieved at the Alternative location that is shown within the Plan Change site. I invite the applicant to provide more information on this matter.

- **Contaminated Land, and the NES**

50. In paragraph 93 of my previous report, I considered that my desktop examination of the potential land contamination sources indicated that the development of the Plan Change Area would be acceptable in terms of human health effects, provided that soil contamination at these sites is investigated appropriately at the time of development, and any remediation work that is necessary to reduce the levels of contaminants or otherwise make the land safe for the intended development is carried out before the sites are developed. To ensure this occurred, I recommend that these sites should be identified in the Council's GIS land hazard register and also in Environment Canterbury's Listed Land Use Register (LLUR) so that future land owners are alerted to this.
51. The Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 ("the NES"), which took effect following the notification of the Plan Change, require a more formal Preliminary Site Inspection (PSI) to be carried out prior to any change of use of production land, which then determines if any more detailed examination of the land is necessary under a separate resource consent. The PSI would normally be required to be submitted with any subdivision application, and the

information in the PSI would provide information to the Council's GIS land hazard register and also in Environment Canterbury's Listed Land Use Register (LLUR).

52. The provisions of the NES supersede my previous recommendations, and no special provisions for this purpose need to be included in this Plan Change.

RECOMMENDED AMENDMENTS

53. Having reviewed the notified Plan Change, I consider that potential adverse environmental health effects and reverse sensitivity effects would be addressed by the mitigation described in the notified Outline Development Plan and Planting Concept Plans, subject to the following amendments. These recommendations are consistent with those in paragraph 103 of my previous report, except where noted.

Recommended rule changes

- i. **Offensive Trades: Business Zones Activities Rule 13.1.6.2 (a)**
Amend, by specifically listing the activities in Schedule 3 of the Health Act 1956 as Discretionary activities in the Business 2 zone, with the exception of bottle collection and storage which is unlikely to generate any adverse effects in an adjacent Living zone. This would avoid uncertainty in the interpretation of this rule, and also avoid the potential for a potentially noxious activity to escape scrutiny because a resource consent had been granted for an aspect of the activity as explained in paragraph 25 of my previous report.
- ii. **Hazardous Substances: Business Zone Rule 20.1.1.1**
Amend, so that the more stringent quantity limits for the Business 1 zone apply in the proposed Business 2 Zone. Limiting the potential quantities that could be held on any property in the Business 2 zone extension would give better effect to the control of hazardous substances envisaged by Business Zone Policies B3.2.3, as discussed in paragraphs 38 and 39 of my report.
- iii. **Noise: Living Zone Rule 10.6.1, Business Zone Rule 22.14:**
Amend, to state that, in the area included under Plan Change 24:
 - a) Noise shall be measured and assessed in accordance with NZS 6801:1991 *Measurement of Sound*, and NZS 6802:1991 *Assessment of Environmental Sound*.
 - b) Construction noise shall be controlled in accordance with NZS 6803:1999 *Acoustics – construction noise*.

These changes would address any uncertainty which could arise if the existing incorrectly worded rules were applied, as discussed in paragraph 55 of my report.

Recommended changes to the Notified ODP

- iv. **Noise mitigation**
To mitigate noise effects from existing business activities in the Business 2 zone on Cardale Street, amend the ODP to include:

- a) Acoustic fencing at
 - i. the common (rear) boundaries of properties from 1A to 15 Cardale Street with the existing right-of-way which runs behind them, to protect new development to the south of that right-of-way; and
 - ii. at any other boundary of those sites that is shared with new residential development of an adjacent site under the proposed Living 1 zoning.

The minimum specification of such fencing would be 2.2 m in height with a surface mass of at least 10 kg/m² (e.g. 25 mm treated timber, concrete tilt slab or block) without gaps in its construction.

- b) Retain the existing right-of-way which runs behind 1 to 17 Cardale Street, to separate those activities from the bulk of the proposed Living Zone. This right-of-way is not shown in the ODP.
- c) To mitigate noise effects from Lovelady Racing Ltd and Darfield Collision Repairs on residential development in the proposed Living 1 zone on Lot 2 DP 53747, either:
 - i. Increase the setback between the workshops and any future residential property in Lot 2 DP 53747 to at least 60 m. This setback could include the proposed road reserve extending from Mathias Street through the Plan Change area that is shown in the ODP.

Or:

 - ii. Erect a continuous barrier with an effective height of 3 metres either along the east boundary of Darfield Collision Repair and Lovelady Racing Ltd, or along the western boundaries of subdivided residential sites in Lot 2 DP 53747 that are within 60 m of Lovelady Racing Ltd and Darfield Collision Repair. Suitable materials for such a barrier are earth bunding and/or a fence with surface mass of 10 kg/m² (e.g. 25 mm treated timber, concrete tilt slab or block), without gaps in its construction. The final location and extent would be dictated by the final location and layout of the Mathias St south extension.
- d) Where any residential site is developed on land which adjoins Lovelady Racing Ltd's site at Lot 1 DP 356582 at its north, west or south boundaries, erect acoustic fencing at the common boundary 2.2 m in height with a surface mass of 10 kg/m² and without gaps in its construction.

Recommended changes to the Revised ODP

- i. In the absence of any other information from the applicant to support the amended ODP, a minimum setback of 40 m should apply between the B2 zone boundary and any dwelling in the Living 1 zone. This is consistent with the Living/Business zone buffer that is shown in page 1 of the notified ODP Planting Concept Plan.
- ii. A buffer of at least 20 m should be maintained between dwellings in the proposed Living zones and the closest boundary of the Rural Open Plains zone.
- iii. The proposed Living/Rural buffer zone between the L2A zone and rural land on the south side of Creyke Road needs to be re-considered in terms of mitigation of potential adverse

effects (odour, spray drift) of the wastewater treatment plant (WWTP) and associated discharge area, which the revised ODP shows could be located on the rural land.

- iv. The alternative WWTP/discharge area shown in the revised ODP, which is within the Plan Change area, needs to be assessed in terms of any separation from the proposed L1 and L2A zones that is necessary to mitigate potential adverse effects, and minimum areas required for spray irrigation, taking into account the quality of effluent, daily application rates and other relevant information.
- v. The applicant has not provided any reassessment of these matters to support the revised ODP. I would invite them to respond to this evaluation and my recommendations, and to present further information in the exchange of expert evidence prior to this hearing.

Recommended changes to the Notified and Revised ODPs

vi. Setbacks from the Darfield Shooting Centre

A 500m setback from the Darfield Shooting Centre to notional boundaries at new dwelling sites shall be included in the ODP for Plan Change 24.

Alternatively, acoustic barriers could be incorporated in any subdivision design provided they are supported with certification by an experienced acoustician that the barriers will attenuate noise from the DSC to 55 SNL at any residential building site.

ATTACHMENT 1

PREVIOUS REPORT

SELWYN DISTRICT PLAN

Plan Change 24

Rezoning of Living 2A (Deferred) Zone at Darfield

Environmental Health Assessment

prepared for

Selwyn District Council

ViaStrada
January 2011



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PLAN CHANGE 24 - DARFIELD

ENVIRONMENTAL HEALTH ASSESSMENT

INTRODUCTION

1. My name is Russell Charles Malthus. I am a qualified Environmental Health Officer with over thirty years' experience in local government. In my capacity as Senior Environmental Health Consultant with ViaStrada Limited, a Christchurch-based Traffic Engineering and Planning consultancy, I provide expert advice to territorial authorities and private clients on the assessment of environmental health effects of land use proposals.
2. I have been engaged by Selwyn District Council to assist with the assessment of Plan Change 24, with specific regard to the potential environmental health effects of the Plan Change proposals and the mitigation of those effects. I understand that this report has been commissioned by the Council at the request, and with the agreement, of the applicant, who has chosen not to provide an environmental health assessment with the application.
3. In this report the Plan Change is examined with particular consideration to the effectiveness of the existing provisions of the Selwyn District Plan, and of any existing and/or proposed mitigation measures to avoid or minimise adverse effects between land uses, including reverse sensitivity effects. Appropriate regard has been taken to the Canterbury Natural Resources Regional Plan (NRRP), relevant statutes and regulations, relevant standards guidelines, and relevant provisions in other District Plans.
4. The conclusions of this report include recommendations on additional mitigation and amendments that are considered necessary to ensure that appropriate levels of amenity are achieved and maintained in the various land use zones.

BACKGROUND INFORMATION

5. In carrying out this assessment, I have read the draft application documents prepared by Davis Ogilvie & Partners Ltd dated September 2010, and the amended application documents dated November 2010, and the supporting Appendices. The assessment process has also included:
 - discussions with the applicant's representatives: Mary Clay and Russell Bengé of Davis Ogilvie Partners (DOP), and Roy Hamilton;
 - consideration of DOP's responses to requests for further information from Council's planning consultant, Janette Dovey of Bellbird Consulting Group Ltd;

- examination of the Council's property files for the various land parcels in the Plan Change area for relevant information, and obtaining further information through discussions with Council's officers;
- obtaining a report from Environment Canterbury (ECan) on the contamination status of land parcels that are in its Listed Land Use Register (i.e. sites where hazardous substances have been stored, used or disposed of);
- examination of current and historical aerial photographs of the Plan Change area;
- site visits to the Plan Change area on 14 October 2010 and 17 November 2010, which included discussions with operators of established businesses in Cardale Street;
- conducting ambient sound level measurements in the vicinity of the plan change area on 5 December 2010, including measurements of shotgun noise emitted from the Darfield Shooting Centre (DSC);
- discussions regarding previous land use activities within the Plan Change area with various parties;
- discussions with the chief executives of established activities within the adjacent existing Business 2 zone on Mathias Street;
- consideration of all relevant provisions of the Selwyn District Plan, Township Volume and Rural Volume, that are operative at the date of this report.

PROPOSAL

6. The Plan Change proposals are set out in the application prepared by Davis Ogilvie & Partners Ltd, dated November 2010, and the supporting Appendices.
7. In summary, and referring to the District Plan Planning Map 073 and the Outline Development Plan in Appendix 4 of the application, the following rezoning of land is proposed:
 - the majority of the land in the Plan Change area that is currently zoned Living 2A (Deferred) will be rezoned Living 1 and 2A;
 - land on the south side of Cardale Street and south-east of Mathias Street which is currently zoned Business 2 will be rezoned Living 1;
 - the Living 2A Deferred land which adjoins the existing Business 2 zone on its west boundary and the Rural zone on its east boundary, and has a frontage on West Coast Road (State Highway 73), will be rezoned as Business 2.

POTENTIAL ENVIRONMENTAL HEALTH EFFECTS

8. This assessment considers the potential adverse effects on human health, safety and amenity values, or reverse sensitivity effects on properties within and outside the Plan Change area, as follows:
 - Noise and vibration emissions
 - Hazardous substances storage and use

- Light spill and glare
- Development of sites containing contaminated soils and hazardous materials from current and historical land uses
- Electromagnetic radiation from cellphone towers or high-voltage power lines
- Waste generation, storage and disposal
- Air discharges, including fugitive dust and odour
- Effects of traffic generation and construction work
- Amenity effects between different land use activities

DISTRICT PLAN OBJECTIVES AND POLICIES

9. Section 10 of the application examines various objectives and policies in the Townships Volume that are intended to maintain amenity values, and which address adverse effects and reverse sensitivity effects.
10. The following policies are not identified by the application, but are also relevant:

Towns Objectives and Policies

Part B3, People's Health, Safety and Values

– **Policy B3.4.37**

Where Living zones and Business 2 Zones adjoin, ensure any new activity occurring along the boundary in either zone, includes measures to mitigate any potential 'reverse sensitivity' effects on existing activities.

– **Policy B3.4.38**

Avoid rezoning land for new residential development adjoining or near to existing activities which are likely to be incompatible with residential activities, unless any potential 'reverse sensitivity' effects will be avoided, remedied or mitigated.

Part B4, Growth of Townships

– **Policy B4.3.21**

Ensure any land rezoned for new residential or business development does not create or exacerbate 'reverse sensitivity' issues in respect of activities in the existing Business 2 Zones or the Midland Railway.

Rural Objectives and Policies

Part B3, People's Health, Safety and Values

– **Policy B3.4.19**

Protect existing lawfully established activities in the Rural zone from potential for reverse sensitivity effects with other activities which propose to establish in close proximity.

11. Guidance on the anticipated outcomes and expectations for Living and Business zones in terms of amenity values and reverse sensitivity is found in the following parts of the District Plan:

Townships Volume Part A4, Finding Material in the Plan, Table A4.4

Description of Township Zones

Living 1

Areas that are managed to maintain environments that are most pleasant for residing in. Activities in Living zones have effects which are compatible with residential activities and amenity values.

Living 2

As for Living 1 Zone, but with lower building density and development reflective of the rural character expected of low density living environments. While generally adjoining existing living zones, in some circumstances, low density Living 2 Zones can be located on the edge of townships. Larger sections, more space between dwellings, panoramic views and rural outlook are characteristic of this zone.

Business 1

Business 1 Zones have environments which are noisier and busier than Living zones, with more traffic, people, signs and building coverage. Business 1 Zones are still pleasant areas for people to live or work in, with good amenity/aesthetic values. They are also areas where higher density housing can be established as a permitted activity.

Business 2

Business 2 Zones are areas where activities likely to be considered less pleasant by people are located. Aesthetic and amenity standards are less than those in Living or Business 1 Zones. Activities are still managed to protect natural resources and people's health or well-being. Activities likely to cause 'reverse sensitivity' issues are discouraged in Business 2 Zones e.g. residential activities.

Townships Volume Part B, Objectives and Policies clause B3.4

"Amenity Values" are part of the character of a place. They are defined in the Act (section 2) as: 'Those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence and cultural and recreational attributes'.

'Reverse Sensitivity' is jargon to describe the situation where a new activity locates close to an existing activity and the new activity is sensitive to effects from the existing activity. As a result, the

new activity tries to restrict or stop the existing activity, to reduce the effects. The most common examples in Selwyn District arise from houses (residential activities) built next to industrial activities; in the rural area; or near busy roads or railway lines.

Rural Volume Part B Objectives and Policies clause B3.4

Conflicts can be created by the combination of different activities, effects and perceptions of the character of the rural area. In particular, issues are emerging in the District over effects of activities which are typical or normal for rural areas, but which some residents do not expect or dislike. These effects fall into two categories:

- Temporary effects from seasonal activities such as burning stubble, harvesting crops or topdressing.*
- Effects from day to day activities in the rural area are part of the rural area which are different from effects in townships such as, the smell of crops like silage, turnips or garlic; or noise from irrigators or tractors; and stock being driven along roads.*

The Council believes these effects are part of the character of the rural area. This District Plan has policies and rules to maintain a generally pleasant living and working environment. However, residents should not expect an environment which is as conducive to residential activities as Living zones. The Rural zone is principally a business area and the policies and rules are designed to allow people to undertake farming and other business activities relatively freely.

12. Furthermore, the explanations and reasons for the following policies provide guidance on the types of measures which could be considered for mitigation of adverse effects and to address reverse sensitivity effects in this Plan Change:

...setbacks or other methods to mitigate reverse sensitivity effects, and to avoid operation of existing activities being compromised (Towns Policy B4.3.22)

...landscaping and screening of sites to reduce visual effects, greater setback distances for buildings from property boundaries or building line restrictions, the use of larger sections, roads or walkways along the zone boundary to act as 'buffer zones', or bunding landscaping. (Towns Policy B3.4.37)

... appropriate buffers or separation distances between activities. However, there may be other methods which can be used to avoid reverse sensitivity effects. (Rural Policy B3.4.19)

OUTLINE DEVELOPMENT PLAN (ODP)

13. Growth of Townships Policy B4.3.22 provides for development of the Living 2A (Deferred) zone at Darfield subject to an Outline Development Plan (ODP) being incorporated in the Plan with provision to address any reverse sensitivity issues.
14. The ODP in Appendix 4 of the application is the principal method by which the Plan Change proposes to mitigate adverse effects and address reverse sensitivity effects. The rationale for the ODP is explained in pages 14-16 of the application, and the ODP would be given effect to by the proposed rules in pages 21-23 of the application.
15. The ODP includes a Planting Concept Plan (PCP), which shows “buffer zones” in terms of Towns Policy B3.4.37 at the following interfaces between land use zones that are intended to mitigate adverse effects and reverse sensitivity effects through a combination of distance and landscape planting:
 - i. a Living/Business Buffer Zone between the proposed Living 1 zone and the proposed Business 2 zone, 40 metres wide, which includes a future collector road, an existing water race and amenity planting, with marginal planting to provide a dense screen along the southern (i.e. Living 1 zone) boundary between the zones;
 - ii. a Business/Rural Buffer Zone between the east boundary of the proposed Business 2 zone, and the existing Rural zone on West Coast Road, 5 metres wide with informal planting of small and large trees to provide a visual buffer;
 - iii. a Living/Rural Buffer Zone between the proposed Living 2A zone and the existing Rural zone, 5 metres wide and on the Plan Change side of Creyke Rd, where existing trees would be maintained or replaced with more openly spaced planting 5 to 15 m high. Planting similar to this is also proposed along the boundary of the Business 2 zone on West Coast Road.
16. The effectiveness and appropriateness of the ODP/PCP provisions to address adverse effects and reverse sensitivity in conjunction with relevant rules in the District Plan are examined further in this assessment.
17. The following interfaces are not identified in the ODP or PCP, but also need to be considered:
 - i. between the proposed Living zones and the existing Rural zone on West Coast Road;
 - ii. between activities in the proposed Living 1 zone and existing businesses in the current Business 2 zone on the south side of Cardale Street (which will be rezoned Living 1);
 - iii. between the proposed Living 1 zone on the south side of Cardale Street, and existing Business 2 activities on the east and west sides of Mathias Street;
 - iv. between the proposed Living 1 zone and the existing Living 1 zone at Pemberton Drive;
 - v. between the proposed Living 2A zone and the Living X (Def) zone on the west side of Telegraph Road;
 - vi. between the proposed Business 2 zone and the existing Business 2 zone;
 - vii. between the Darfield Shooting Centre and the proposed Living 2A Zone.

DISTRICT PLAN RULES

Activities-based rules

18. The Plan includes rules which allow the Council to exercise discretion on activities establishing in the Business 2 zone which have significant potential to generate adverse effects in a neighbouring Living zone.
19. Townships Volume Part C, Business Zone Status of Activities Rule 13.1.6.2 (as amended by Plan Change 10, in relation to the Rolleston Business 2A zone) lists the following as Discretionary Activities in the Business 2 zone:

Any of the activities listed in (a) to (g) below, irrespective of whether they comply with the conditions for permitted activities in Rules 14 to 23.

- (a) *Any activity that requires an offensive trade licence issued under the Health Act 1956*
- (b) *Audible bird-scaring devices*
- (c) *Forestry*
- (d) *Mineral exploration*
- (e) *Processing, composting or disposal on to land of any organic matter*
(This rule does not apply to the application of compost or organic fertilizers to fertilise gardens or land).
- (f) *Visitor accommodation*
- (g) *Hospitality activities*

- (h) *Tannery, fellmongering or hide curing, wool scouring or washing in the Business 2A Zone*
- (i) *Scrap yards – including automotive dismantling or wrecking yard or scrap metal yard in the Business 2A Zone.*

20. Rule 13.1.9.2 specifies that the following are non-complying activities:

- (a) *Mining or quarrying*
- (b) *Correction facility*
- (c) *Treatment or disposal of solid or liquid waste delivered or conveyed onto the site.*

21. I consider that it is appropriate for the Council to reserve its discretion over such activities, as they have significant potential to generate adverse effects from noise, glare, hazardous substances, fugitive odour

and dust discharges, and litter, in particular when management practices or control processes fail for any reason. This is particularly the case with activities involving organic matter or solid or liquid wastes, and also offensive trades, which often involve processing of primary industry products, by-products, and wastes. Notwithstanding that such industries would require air discharge consents from Environment Canterbury, an unanticipated process malfunction could cause fugitive odours to carry for several hundred meters and adverse effects might not be mitigated by distances or screening such as is proposed by the ODP/PCP, especially under prevailing winds. Also, it is appropriate for the Council to consider reverse sensitivity effects to industrial activities in the Business 2 zone from visitor accommodation or hospitality activities establishing under Rule 13.1.6.2(f) and (g), or a correction facility establishing under Rule 13.1.9.2(b).

22. However the activities described in Rule 13.1.6.2 (b), (c) and (d) and Rule 13.1.9.2 (a) would be unlikely to operate in the proposed Business 2 zone due to its limited size. Therefore, I consider that only Rule 13.1.6.2 (a) and (e) and Rule 13.1.9.2 (c) are relevant to the environmental health assessment of this Plan Change.
23. Referring to Rule 13.1.6.2 (a), Table 1 below lists the offensive trades that are specified in Schedule 3 of the Health Act 1956.

Table 1 Health Act 1956 Schedule 3 Offensive Trades

Blood or offal treating	Nightsoil collection and disposal
Bone boiling or crushing	Refuse collection and disposal
Dag crushing	Septic tank desludging and disposal of sludge
Collection and storage of used bottles for sale	Slaughtering of animals for any purpose other than human consumption
Fellmongering	Storage, drying, or preserving of bones, hides, hoofs, or skins
Fish cleaning	Tallow melting
Fish curing	Tanning
Flax pulping	Wood pulping
Flock manufacturing, or teasing of textile materials for any purpose	Wool scouring
Gut scraping and treating	

24. While I support the intention of Rule 13.1.6.2 (a) to control Health Act offensive trades as Discretionary activities because of their potential to generate significant adverse effects, I consider the current wording of the rule will not achieve that purpose because Offensive Trades are not *licensed* but are *registered* by territorial local authorities under Section 54(3) of the Health Act. Furthermore, any activity in Table 1 above which was controlled by resource consent under the RMA would be exempt from such registration, which would weaken the application of the rule. As a matter of note, except for the collection and storage of used bottles for sale which these days does not necessarily involve discharge of contaminants, all of the listed Offensive Trades would be likely to require resource consent from

Environment Canterbury to discharge contaminants to water or air, or from the Council and ECan to use hazardous substances in quantities greater than permitted by the District Plan or the NRRP.

25. Therefore, to give Rule 13.1.6.2 (a) its intended effect, I recommend that it should be reworded to simply list the activities from Schedule 3 of the Health Act 1956 as Discretionary activities in this Business 2 zone, with the exception of bottle collection and storage which is unlikely to generate any adverse effects in an adjacent Living zone. This would include the existing Business 2 zone on the east and west sides of Mathias Street, and would ensure that potential adverse effects and reverse sensitivity effects of such activities that might be established in the existing and proposed Business 2 zones would be addressed consistently in relation to the proposed Living Zones.
26. This would not be onerous to existing businesses in those parts of the zone, as discussions with the CEOs of the current owner/occupiers of land in this zone (i.e. Frews Transport Ltd on the east side of Mathias Street and Sicon Ltd, the Council's construction and works contracting company on the west side) show that they do not currently operate any Offensive Trades, and none are intended. Mr Mervyn Frew, CEO of Frews, informed me that the company predominantly transports bulk grain, livestock and other farm produce on the west and south parts of the site, and it is proposed to build a coolstore at the south end of the site. The north end of the Frews site is sublet to Firth Concrete Ltd which operates a concrete batching plant, and to Campel Limited which manufactures stock food pellets. A Vodaphone tower and associated building are located at the south end of the site. Mr Brett Beagley, CEO of Sicon, informs me that their workshops and truck operations are located at the north end of the site, and the south end of the site is used for storage of equipment and materials.
27. It should be noted that these provisions are intended to control worst case developments occurring in the Business 2 zone, in terms of effects. However a wide variety of other businesses, including retail, could establish in the zone as of right. Provided they complied with the relevant effects-based rules, any adverse effects would be no more than minor and they would be consistent with the amenity of the proposed Living zones.

Effects-based rules

28. In addition to the activities-based rules above, the District Plan also includes various effects-based rules and performance standards which control activities in the Living, Business and Rural Zones, to address adverse environmental health effects on Living Zones and reverse sensitivity effects to Business and Rural activities. Activities which do not comply with those rules and standards require resource consent.
29. For reference, the relevant rules are summarised in **Attachment 1** of this report.
30. The Plan Change does not propose any changes to these existing effects-based rules, nor does it include a detailed assessment of the effectiveness of the proposed mitigation measures with regard to those rules.

31. I have considered the proposed mitigation in the context of the existing rules, to determine if the mitigation and/or the rules should be changed to improve their effectiveness in addressing effects and protecting amenity values.
32. In my opinion there is a high degree of consistency in the rules applying for the different Zones (i.e. Living 1 and 2, Business and Rural), for the control of light spill, development of sensitive activities on contaminated land, health and safety involving utilities, keeping of animals, waste, and aircraft movements. I consider that no changes are necessary to improve the effectiveness of those rules in protecting land use amenity and address reverse sensitivity in respect of this Plan Change to the extent anticipated in Township Volume Part A4 Table A4.4 (as quoted in paragraph 11 of this report).
33. However, the effectiveness of the proposed mitigation and/or current District Plan provisions controlling hazardous substances, noise and vibration, contaminated land and electromagnetic radiation levels from utilities require further consideration.

Hazardous Substances

- **Proposed Living Zone/ Business 2 Zone interface**

34. The potential effects on the proposed Living Zones from the bulk storage and manufacture of hazardous substances in the proposed Business 2 zone could include fugitive odour and fume emissions that are inconsistent with residential amenity, or which may cause adverse effects to human health. In a worst case of a fire emergency event, noxious and/or toxic smoke and fumes could blanket the Living Zone and force the evacuation of the resident population, taking into consideration that the proposed Living Zones are downwind from the existing and proposed Business 2 zone.
35. While the storage or processing of hazardous substances at hazardous facilities are generally controlled by the Hazardous Substances and New Organisms Act (HSNO) and its regulations, wider environmental effects are not expressly controlled and HSNO allows the Council to impose more stringent requirements under the RMA for that purpose.
36. Part B3 of the Townships Volume of the District Plan sets out issues, objectives and policies to avoid, remedy or mitigate adverse effects of hazardous substances to human health, to the amenity of townships, the rural environment and to the natural environment.

Objective B3.2.1

To ensure that adequate measures are taken to avoid, remedy or mitigate any adverse effects to human health, to the amenity of townships, the rural environment and to the natural environment arising from the manufacture, storage, transport on water bodies and disposal of hazardous substances.

Objective B3.2.2

To ensure that adequate measures are taken during the manufacture, storage and disposal of hazardous substances to avoid, remedy or mitigate any adverse effects to the health of livestock and other farm animals, of domestic animals, and of flora and fauna, and to the lifesustaining capacity and amenity values of waterbodies, land and soil resources.

Policy B3.2.1

Ensure any potential risk of adverse effects on the environment from spills, leaks or other mismanagement of hazardous substances is avoided or mitigated.

Policy B3.2.2

Avoid the manufacture, use or storage of large quantities of hazardous substances in Living or Business 1 Zones, unless potential adverse effects on people's well-being and the amenity values of these zones will be minor.

37. The Explanation and reasons for Policy B3.2.2 states:

Living zones are areas with amenity values most compatible with residential activities. Business 1 Zones are busier areas with larger-scale business activities than Living zones. They are also areas for high density residential activities, and areas which many people occupy for business and social activities.

Policy B3.2.2 does not prevent large quantities of hazardous substances being manufactured or stored in these areas, provided that those activities cause no more than minor adverse effects on amenity values.

Part E, Appendix 9 details higher quantity limits for Business 1 Zones than in Living zones. This is to reflect that larger volumes may be required as part of business activities carried out in these zones and can be accommodated without compromising the amenity values of such zones.

Policy B3.2.3

Mitigate any adverse effects on the environment from the manufacture, use or storage of hazardous substances in Business 2 and 2A zones or the Business 3 zone.

38. The Explanation and reasons for Policy B3.2.3 states:

Business 2 and 2A Zones and the Business 3 Zone are areas where manufacturing, use or storage of hazardous substances may be an integral part of some activities. These zones provide areas for these activities which may not be able to be located in Living or Business 1 Zones because of their effects. Other effects that may need managing include (but are not limited to) potential contamination of land; incompatibility of activities on adjoining sites; or offensive odours, discharges or dust nuisances.

Some Business 2 and 3 zones are located close to Business 1 or Living zones, therefore some management of hazardous substances is needed to accommodate the requirements of business activities whilst ensuring that adverse effects on people and activities at other sites and on the rest of the environment are avoided, remedied or mitigated. The threshold quantities in Part E, Appendix 9 for hazardous substances are therefore higher for Business 2, 2A and 3 zones, but are not unlimited, and site storage and location criteria also apply.

39. These policies and explanations indicate that the Plan should include a hierarchy of land use zoning and rules which provide for the greater control of hazardous substances effects on Living zones and the greater protection of residential health, safety and amenity. However the land use zoning maps for the District show that Business 2 and Living Zones commonly adjoin directly, and are not separated by a Business 1 zone or any other intermediate “buffer” zoning. Furthermore, an examination of the rules shows that there are no special site storage and location criteria for hazardous facilities in Business 2 zones that would control effects in other zones. The rules do not restrict large hazardous substances facilities establishing in the Business 2 zone with quantities that are significantly greater than those permitted in adjacent Living zones, and there are no requirements in the rules of the Plan to separate such facilities from residential areas. In this regard, I consider that the rules do not give effect to Policy B3.2.3 above, or Policy B3.4.37 (refer paragraph 12 above).
40. This zone boundary issue is usually addressed in District Plans by requirements for hazardous facilities and residential activities that are in different zones to be separated by prescribed distances, and/or by applying the more stringent quantity limits to a “buffer strip” within the site containing the hazardous facility. As a further buffer, it is also common practice to locate a “light business” zone between living zones and heavy industrial zones, with quantity limits which are intermediate between those zones. An example of this is the Christchurch City Plan which locates a Business 4 zone (which generally provides for warehousing and light industry) between Living Zones and the Business 5 (heavy industry) zone. It also applies a buffer strip of 30 m within Business Zone sites which adjoin Living zone sites, and the more stringent quantity limits of the Living Zone apply to that strip.
41. The 30 m distance is consistent with guidance for territorial authorities that is provided by the Ministry for the Environment in the *Land Use Planning Guide for Hazardous Substances, Hazardous Facilities Screening Procedure*¹ for the purpose of protecting residential health and safety in such situations. In terms of the Plan Change, that degree of separation would be provided by the proposed 40 m Living/Business buffer zone in the PCP, the 30 m distance across Cardale Street between the boundaries of the proposed Living 1 Zone and the existing Business 2 Zone on Mathias St, and the 60 m distance between the proposed Business 2 zone to the Living 1 and 2 zones that lie north of West Coast Rd and the railway corridor. These buffers are therefore consistent with established guidance and practice for the mitigation of effects through land use planning, and would give effect to the Plan’s issues, objectives and policies for that purpose, which are discussed in paragraphs 9 to 12 of this report.
42. However, those buffers would not be sufficient to mitigate effects of noxious and/or toxic smoke or fumes being carried into the proposed Living zones during a hazardous substances emergency,

¹ Available at <http://www.mfe.govt.nz/publications/hazardous/land-use-plan-guide-feb02.html>

- although they would allow access for emergency services in such an event. Such events are infrequent, and the extent of any adverse effects cannot be predicted, however there can be a direct relationship between the quantity of hazardous substances that are present and the scale of the emergency and its adverse effects. The Plan makes no provision for guidance or control of such effects. In my opinion, because the proposed Business 2 zone has potential to include heavy industries and there is no intermediate buffer zoning between it and the proposed Living Zones, it would be justified to mitigate this risk by limiting the quantities of hazardous substances that are permitted at any individual site in the proposed Business 2 zone. This could be achieved by amending Business Zone Rule 20.1.1.1 so that the more stringent quantity limits for the Business 1 zone apply in the proposed Business 2 Zone. This amendment should also include the existing Business 2 Zone on Mathias Street, with the exception of complying storage that is subject to existing use rights.
43. This measure would complement Business Zone Rule 13.1.6.2 and 13.1.9.2, which give Discretionary and Non-complying status to specific noxious activities in the proposed Business 2 Zone, as discussed in paragraphs 19 and 20 above. It would also mitigate risks to health and safety at retail or other people-intensive activities in the proposed Business 2 zone, such as a supermarket, which could establish as a permitted activity adjacent to heavy industries in the Business 2 zone.
 44. In respect of the existing Business 2 zone on Mathias Streets, the Business 1 zone limits would apply only to any future change in hazardous substances storage and not to hazardous substances that are present at any site when this Plan Change takes effect, which would be subject to existing use rights. Consideration of the existing quantities held by businesses in that zone indicates this would not be unreasonably restrictive to those businesses. The Frews site on the east side of Mathias Street currently holds 30,000 litres of diesel in an underground tank. That quantity complies with the Business 1 and Business 2 quantity limits in Townships Volume Appendix 9. At Sicon, 5,000 litres of diesel is held aboveground, which also complies with the Business 1 and Business 2 zone limits. This existing storage will pose no risk to the Plan Change area, due to the buffer distances involved and the low inherent risks associated with diesel contained in HSNO-compliant storage. As the CEOs of these companies advised me that they are not considering increasing their hazardous substances storage in the foreseeable future, this rule change would not onerously affect their businesses.
- **Proposed Living 1 and 2A Zones/ Rural Zone interface**
45. At its south and west boundaries, the Plan Change area is separated from the Rural Zone by Telegraph Rd and Creyke Rd, which provide a buffer of approximately 20 m. The Rural zone directly adjoins the north boundary of the Living 1 and 2A zones, with no buffer proposed by the Plan Change.
 46. Potential effects on the proposed Living 1 and 2A Zones from the storage and use of hazardous substances in the adjacent Rural zone include crop spray drift and proximity of hazardous facilities to residential activities.
 47. Spray drift in Selwyn District is controlled appropriately by rules in the Canterbury Natural Resources Regional Plan (NRRP), and it is not necessary for the Council to consider applying additional controls through the District Plan.
 48. Rural Zone Rule 7.1.1.2(b) requires hazardous substances that are agrichemicals, fumigants and vertebrate toxic agents to be stored at least 30 m from any Living zone, which is consistent with

- accepted guidance and good practice as discussed in paragraph 41 above. This separation would mitigate adverse effects of such storage on residential development in the proposed Living 2A Zone. Storage of other hazardous substances is controlled by threshold quantity limits in Rural Volume Part E Appendix 9 that are more stringent than those for Business zones, and which are relatively consistent with the limits for Living zones. The storage criteria for the safe containment of substances and spillages in Rural Zone Rule 20.1 are also consistent with those in Living Zone Rule 8.1. There appears to be no storage of hazardous substances in the Rural Zone adjacent to the Plan Change area which would trigger the current controls of the Plan.
49. Taking these controls and separation distances into account, I consider that any potential adverse effects of storage and use of hazardous substances in the Rural Zone will be no more than minor, and will be consistent with residential amenity in the Living 1 and 2A Zones.

- **Proposed Living 1 Zone/existing Business 2 Zone interface**

50. The potential for hazardous substances on existing sites in the existing Business 2 zone on the south side of Cardale Street on future residential development in the proposed Living 1 Zone which will supersede it has been considered.
51. Site visits show that the following activities are currently established in this part of the Business 2 Zone. Figure 1 below shows their locations.
- 1 Cardale St vehicle crash repair/spraybooth (Darfield Collision Repairs)
 - 1A Cardale St lockup storage
 - Lot 1 DP 356582 light engineering, racing car manufacture, equipment hire (Lovelady Racing Ltd)
 - 3-5 Cardale St truck storage by a transport company (Mitchell Transport Ltd)
 - 7 Cardale St rental lockup storage containers
 - 9 Cardale St firewood and contractors' yard
 - 11 Cardale St builder's yard and shed, and hairdressing shop
 - 13/15 Cardale St bus depot and workshop (Torlesse Travel Ltd)
 - 17 Cardale St residential property in the Business 2 Zone currently associated with Torlesse Travel

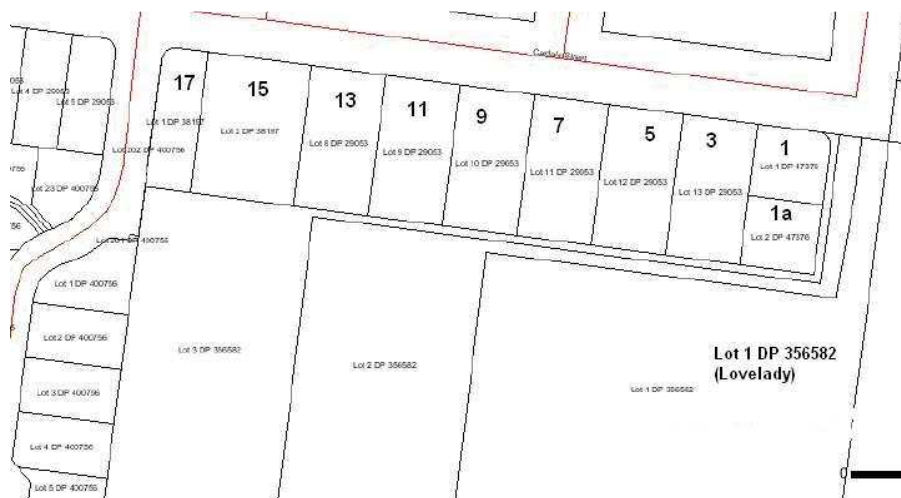


Figure 1 Cardale St Business 2 Zone – location of existing activities

52. The following activities are identified as currently having hazardous substances on their sites:

- a) Lovelady Racing Ltd, a light engineering workshop/bespoke racing car manufacturer at Lot 1 DP 356582, behind 1 Cardale Street holds minor quantities of lubricants and methanol approximately 30 m from adjacent properties. This would not be expected to adversely affect future residential neighbours. No large quantities of paints or solvents are held here, as the racing cars made by this company are not spraypainted at this site.
- b) Darfield Collision Repairs, at 1 Cardale Street, a car repair and painting business holds paints and solvents and other materials in minor quantities, which are controlled by HSNO compliance and certification requirements. Emission of fumes from the spraybooth would be controlled by discharge consent under the NRRP. Compliance with those controls would ensure that adverse effects to future residential neighbours were avoided or mitigated.
- c) Mitchell Transport, which uses 3-5 Cardale St as a truck depot, holds 2000 litres of diesel in an aboveground tank at least 10 m from adjacent boundaries. Diesel has a low flash point, and this quantity would not be expected to adversely affect future residential neighbours.
- d) Torlesse Travel, which operates a bus company on a site at 13-17 Cardale Street holds 10,000 litres of diesel in an aboveground tank located at least 30 m from the site's boundaries. This complies with the Business 2 Zone quantity limits. Discussions with Fuelquip and Mobil reveal that this tank replaced two tanks with a total capacity of 13,500 litres, in 2007. The new tank has integral secondary containment to hold any leakage, and would be subject to HSNO certification. My site inspection found no sign of spillage. This tank would not pose any risk to future neighbours, or cause adverse effects.

Noise

- **Anomalies in current noise and vibration rules**

53. There are a number of anomalies in the current noise and vibration rules which have been previously drawn to the Council's attention by Dr Stephen Chiles of URS, the Council's acoustics expert for Plan Change 10. Dr Chiles identified the following anomalies in the rules:

- (a) *There is no reference made to the measurement and assessment standard (e.g. NZS 6801 and 6802)²,*
- (b) *Use of daytime Lmax limits is generally not appropriate³,*
- (c) *There is no provision of construction sound such as by reference to NZS 6803⁴,*
- (d) *The acoustics parameters have been superseded⁵*
- (e) *Vibration limits are missing.*

54. Dr Chiles comments further:

All of these anomalies are beyond the scope of Plan Change 10 to address, and exist regardless of whether or not Plan Change 10 proceeds. However, I understand that following my review in connection with Plan Change 10, the Selwyn District Council is now looking to rectify these matters as part of a separate process.

55. I agree with Dr Chiles that these anomalies should be addressed in a District-wide context through a separate review of the District Plan, in which noise and vibration limits and relevant Standards would be rigorously examined to ensure that rules are consistent between the Townships and Rural volumes. However, while such a review is beyond the scope of this Plan Change, I consider that changes which are specific to the Plan Change area should be made, otherwise the rules will not be able to be applied with certainty. I therefore recommend that the following amendments should be considered:

- for the purposes of Living Zone Rule 10.6.1, Business Zone rule 22.14 and Rural Zone Rules 9.14 - 9.16, to the extent they apply to noise generated in or received in the area covered in the Outline Development Plan for Plan Change 24, noise shall be measured and assessed in accordance with NZS 6801:1991 *Measurement of Sound*, and NZS 6802:1991 ⁶.

² In the version of the Plan notified 2 December 2000, the mandatory measurement and assessment standards were NZS 6801:1999 Acoustics – Measurement of Environmental Sound and NZS 6802:1991 Assessment of Environmental Sound. These have now been superseded by NZS 6801:2008 and NZS 6802:2008.

³ Lmax limits are generally applied at night-time to avoid sleep disturbance, however daytime limits may also be applied by an authority wishing to protect daytime amenity. For example, the Christchurch City Plan also includes daytime Lmax limits.

⁴ NZS 6803:1999 Acoustics – construction noise

⁵ L10 has been replaced by Leq in NZS 6801/6802:2008

⁶ Note: although NZS 6802:1999 was previously referenced in the District Plan as the preferred noise assessment standard, that version of the standard was not widely accepted because of some uncertainties which have now been addressed in the 2008 version. However, the assessment metric in the 2008 version is Leq and not L10. Adopting the 1991 version, which uses L10, will allow the rules to be applied in the Plan Change area until such time as the 2008 version is adopted in a formal review of the Plan's noise rules.

- in the area covered in the Outline Development Plan for Plan Change 24, construction noise shall be exempted from Living Zone Rule 10.6.1, Business Zone rule 22.14 and Rural Zone Rule 9.16, and shall be controlled by NZS 6803:1999 Acoustics – construction noise.
56. With regard to the missing vibration limits, it is relevant to note that such limits are usually only included in District Plans to control effects of blasting associated with mineral extraction, which would be unlikely to occur in the Business 2 or Rural zone adjacent to the Plan Change area and is unnecessary to consider further. Where vibration limits are specified in District Plans to control other land use activities they appear to be inconsistent, and outdated or inappropriate standards are used which limit their effectiveness. For example Auckland, Whangarei and Papakura use ISO (International Standards Organisation) 2631-2:1989, which has recently been withdrawn from NZ Standards, whereas Rodney, Manukau and Matamata-Piako use BS (British Standard) 6841:1987 which is a standard for occupational health vibration assessment. Recently published literature⁷ examines the uncertainties in the application of different vibration standards in district plans and other regulatory systems, and concludes that further examination of such standards may be necessary to determine what is appropriate in the New Zealand context. Given this uncertainty, I do not consider the Council should specify vibration limits for land use activities through this Plan Change. I expect that the Council will address the current absence of vibration rules through a future Plan Change, at which stage it would give its full consideration to whether any limits are necessary for any parts of its District. In the meantime, should vibration effects arise from any activity, in my experience they would be effectively addressed by the Council by enforcement of sections 16 and 326-328 of the RMA, with the most appropriate assessment standards being considered on a case-by-case basis.
- **Business 2 Zone/Living Zone interface noise mitigation**
57. Table 3 below (which is an excerpt from Appendix 6 of the Plan Change application), summarises the various noise limits from the general noise rules for Rural, Living and Business zones, which apply to noise from land use activities that is received in residential environments. The fifth column in Table 3 sets out the limits from Business Zone Rule 22.1.1.4 (as amended by Plan Change 10) for noise from Business 2 activities that is received within any Living Zone.

⁷ A Review of the Adoption of International Vibration Standards in New Zealand. Whitlock J, Marshall Day Acoustics, Auckland, New Zealand. Proceedings of the International Symposium on Sustainability in Acoustics, ISSA 2010 29-31 August 2010, Auckland, New Zealand

Table 3 Summary of existing noise limits for Rural, Living1 and 2A, and Business 2 zones

Rule	Rural	Living 1	Living 2A	Business 2
Noise	Noise limit at any Living Zone boundary. 7:30 am to 8:00 pm 55dBA L ₁₀ 85 dBA L _{max} 8:01 pm to 7:29 am 40 dba L ₁₀ 70 dBA L _{max}	No rules for residential activities. For non residential activities: 7:30 am to 8:00 pm 50dBA L ₁₀ 8:00 pm to 7:30 am 35dBA L ₁₀ 7:30 am to 8:00 pm 85dBA L _{max} 8:00 pm to 7:30 am 70dBA L _{max}	No rules for residential activities. For non residential activities: 7:30 am to 8:00 pm 50dBA L ₁₀ 8:00 pm to 7:30 am 35dBA L ₁₀ 7:30 am to 8:00 pm 85dBA L _{max} 8:00 pm to 7:30 am 70dBA L _{max}	Noise assessed within a Living Zone or within the notional boundary of any dwelling within any Rural Zone. 7:30 to 8:00 pm 55dBA L ₁₀ 8:00 pm to 7:30 am 40dBA L ₁₀ 7:30 am to 8:00 pm 85dBA L _{max} 8:00 pm to 7:30 am 70dBA L _{max}

58. In my opinion, the current level of ambient noise during daytime at the proposed Business 2/Living 1 zone interface justifies the imposition of a more stringent daytime limit on noise emitted by activities in the proposed Business 2 Zone. The current daytime limit 55 dBA L10 in Business Zone Rule 22.4.1.4 is significantly higher than the level of existing ambient noise at the Business/Living Zone interface, which is currently about or below 45 dBA L10 during daytime. Accordingly I recommend that this limit should be changed to 50 dBA L10, i.e. the same level as the limit for non-residential activities in Living Zones in columns 3 and 4 of Table 3.
59. In terms of accepted guidance in NZ standards and international guidelines, my recommended daytime limit of 50 dBA L10 would provide greater protection of residential amenity in the proposed Living zones and would also mitigate against reverse sensitivity effects to Business 2 zone activities. The current limit 55 dBA L10 is at about the *upper limit* of protection suggested by NZS 6802:2008 Acoustics – Environmental Noise, which states that territorial local authorities should impose more stringent limits where that is justified by local ambient noise levels, as is the case here. The current limit of 55 dBA L10 is also about the threshold level between *moderate* and *serious* annoyance in the World Health Organisation’s *Guidelines for Community Noise*, whereas 50 dBA L10 is more consistent with the WHO guideline threshold between *minor* and *moderate* annoyance. Noise at or below 50 dBA L10 would therefore be expected to have no more than minor effect. The 40 dBA L10 night-time limit and the 85 dBA day/70 dBA night Lmax limits are consistent with NZS and WHO guidance for night-time residential amenity protection, and do not need to be changed.
60. In my experience with the Christchurch City Plan, which imposes a limit of 50 dBA L10 at Business/Living Zone interfaces, business activities that are set back from Living Zone boundaries by distances similar to the proposed buffer zones can normally comply with such limits although additional mitigation (e.g. location of plant and equipment, barriers, enclosures, silencers) may be necessary in some instances.
61. To ensure all parts of the proposed Living Zone were protected from business noise consistently, the revised limit would ideally also apply to noise from the existing Business 2 Zone on the west and east sides of Mathias Street (the Sicon and Frew sites) and from sites in the Business 2 zone on the south side of Cardale Street which will be rezoned to Living 1. However those activities are currently controlled by the 55 dBA L10 daytime/40 dBA L10 night-time limit and Lmax limits which apply at the

existing Living 1 Zone and I understand they would have existing use rights for their current level of activity subject to being lawfully established and compliance with those limits.

62. Notwithstanding this, actual level of noise from daytime activities at Sicon's or Frews sites that is received at the proposed Living 1 Zone is unlikely to exceed 50 dBA L10, taking into consideration that those sites are controlled by the 55 dBA limit at the existing Living 1 Zone on the west boundary of Sicon's site which is closer to their activities than the proposed Living 1 Zone. At Sicon, the noisiest workshops and truck operations are located at the north end of the site, and the south end of the site which is used for storage of equipment and materials is at least 30 m across Cardale St from the proposed Living 1 Zone. At Frews site, the noisiest activities (Firth and Campel) are located at the far north end of the site at a distance of at least 300 m from the proposed Living 1 Zone. With regard to noise from Frews' and Sicon's trucks, Mr Frew and Mr Beagley advised me that the maximum number of truck or mobile machinery movements on their sites occurring in a 15 minute period is 10. On the basis that a single truck movement would generate 90 dBA SEL and 95 dBA Lmax at 5 m distance, the level of noise received at the Living 1 zone boundary is not likely to exceed 40 dBA L10/65 dBA Lmax in either case, taking into account the attenuation provided by buildings on their sites.
63. In the existing Business 2 Zone on the south side of Cardale Street, noise from the established activities identified in paragraph 51 above would cease to be an issue once those activities were superseded by residential development in the proposed Living 1 Zone. However, that would be a gradual process, during which time mitigation would be necessary to protect the new residential properties from noise of established business activities. Given the low-key nature of activities currently operating in this part of the Business 2 Zone, I consider this would generally be achieved by the following methods.
- a) Erection of acoustic fencing at
 - i. the common (rear) boundaries of properties from 1A to 15 Cardale Street with the existing right-of-way which runs behind them, to protect new development to the south of that right-of-way; and
 - ii. any other boundary of those sites that is shared with new residential development of an adjacent site under the proposed Living 1 zoning.

The minimum specification of such fencing would be 2.2 m in height with a surface mass of at least 10 kg/m² (e.g. 25 mm treated timber, concrete tilt slab or block) without gaps in its construction.
 - b) Retention of the existing right-of-way which runs behind 1 to 17 Cardale Street, to separate those activities from the bulk of the proposed Living Zone. This right-of-way is not shown in the ODP.
64. However, special measures will be required to mitigate effects of noise from Lovelady Racing Ltd at Lot 1 DP 356582 and Darfield Collision Repairs at 1 Cardale Street. While these workshops do not involve the use of heavy machinery, they include use of hand tools such as grinders, sanders and hammers. It should be noted that the racing cars manufactured by Lovelady Racing are tuned by others elsewhere, and not at this site, although the engine of each car is run briefly to make sure it operates. This occurs every few weeks.

65. The main workshop doorways and yards of these businesses face east, and there is significant potential to cause noise effects in the proposed Living 1 Zone at Lot 2 DP 53747 which is approximately 30 to 40 m east of the workshops. Other properties in the proposed Living 1 Zone to the west and south of Lovelady's property would be protected in part by screening provided by Lovelady's workshop building.
66. To mitigate noise effects from Lovelady Racing Ltd and Darfield Collision Repairs on residential development in the proposed Living 1 zone on Lot 2 DP 53747, I consider that the following additional mitigation would protect adjacent new residential development:

a) either:

- i. Increase the setback between the workshops and any future residential property in Lot 2 DP 53747 to at least 60 m. This setback could include the proposed road reserve extending from Mathias Street through the Plan Change area that is shown in the ODP.

or:

- ii. Erect a continuous barrier with an effective height of 3 metres either along the east boundary of Darfield Collision Repair and Lovelady Racing Ltd, or along the western boundaries of subdivided residential sites in Lot 2 DP 53747 that are within 60 m of Lovelady Racing Ltd and Darfield Collision Repair. Suitable materials for such a barrier are earth bunding and/or a fence with surface mass of 10 kg/m² (e.g. 25 mm treated timber, concrete tilt slab or block), without gaps in its construction.

Referring to Figure 2 below, the approximate extent and optional locations of this barrier are indicated in yellow next to Darfield Collision Repair and Lovelady Racing, and in white next to Lot 2 DP 53747, however the exact location and extent would be dictated by the final location and layout of the Mathias St south extension:



Figure 2 Indicative location of noise barrier

- b) Where any residential site is developed on land which adjoins Lovelady Racing Ltd's site at Lot 1 DP 356582 at its north, west or south boundaries, erect acoustic fencing at the common boundary 2.2 m in height with a surface mass of 10 kg/m² and without gaps in its construction.
- **Noise limits at the proposed Living 1 zone/Living 2A Zone interface**
67. Table 3 shows that no limits apply to noise between residential activities in the Living Zones. Such noise is more effectively controlled under the excessive noise (complaint) provisions of sections 327-329 of the RMA. Similar land use activities are anticipated to occur in any Living Zone, including the Living 1 and Living X zones adjacent to the Plan Change area. I consider that noise levels and effects will be consistent between zones, and no new limits need to be considered to mitigate effects.
- **Noise limits at the Business/Rural interface**
68. Referring to Table 3, Business noise that is received at the notional boundary of any rural dwelling is controlled by the same limits and timeframes as the limits for Rural activities. This would ensure reasonable residential amenity at any rural dwelling that might be erected in the Rural zone to the east of the proposed Business 2 zone, taking into consideration that ambient noise generated by State Highway 73 is generally at a higher level than the L10 limits.

- **Noise limits at the Living/Rural interface**

69. Again referring to Table 3, the daytime Rural zone limits which control noise from activities in the adjacent Rural zone that is received at Living Zone boundaries are within the upper limit of acceptability in terms of the NZS/WHO guidelines. The night-time limits are consistent with the NZ standard and WHO guidelines.
70. Those limits control rural business activities which operate machinery at fixed locations within the Rural zone, at levels which are consistent with the limits that control noise from business activities in a Business 2 zone. No currently established rural businesses of any kind are noted in the Rural zone adjacent to the Plan Change site.
71. Normal primary production activities which are temporary and/or intermittent in nature, such as crop harvesting, crop irrigation, general use of farm machinery and crop protection, are exempted from the noise limits by Rural Rule 9.16.3.1 provided the activity complies with Section 16 of the RMA (i.e. duty to avoid unreasonable noise by adoption of the best practicable option). This exemption allows normal farming activities flexibility to operate in balance with local circumstances.
72. It should be noted that under Rural Rule 9.14, a different noise limit (50 Ldn) applies to aircraft noise from the Rural zone at any affected dwelling in the Plan Change area. That standard is consistent with NZS 6805 and 6807 which apply to aircraft and helicopter noise and is widely adopted in District Plans for that purpose. Under Rule 9.15, audible bird scarers are controlled by SEL limits, which translate into levels that are consistent with the accepted guidelines.
73. The provisions above reflect that the Rural zone is a farming business area which is at times not necessarily a quiet environment, where activities that are not controlled by the rules are nevertheless accepted as reasonable and are consistent with the outcomes and expectations expressed in the Plan for Living/Rural interfaces because they normally occur during daytime and are of limited or seasonal duration at night-time. I consider that these rules do not need to be changed for the purpose of this Plan Change.

- **Noise at the Plan Change/Darfield Shooting Centre interface**

74. Noise generated at the Darfield Shooting Centre (DSC), which is located in the Rural zone opposite the south corner of the Plan Change area on the corner of Telegraph and Creyke Roads, requires specific consideration. Figure 2 below shows the location of this facility in relation to the Plan Change area.



Figure 2 **Darfield Shooting Centre location**

75. From discussions with Marcel van Leeuwen, Secretary/Treasurer of the DSC and Dave Foley, Secretary of the Darfield Clay Target Club (DCTC), I understand that the DSC grounds and clubrooms are used by three sporting groups:

- The DCTC, which operates two 'down the line' traps to release clay targets for shooters using shotguns. The club holds a monthly shooting day on the first Sunday of the month, and on Anzac Day. The club also hosts corporate shoots for business and community groups on demand, currently on 10 or 12 occasions a year. All shooting is carried out during daytime hours. The club shoots generally start at 1 pm, but in October and December they start at 10 am.
- The Malvern Deerstalkers Association (of which Mr van Leeuwen is also the Secretary/Treasurer), which operates a 'running boar' shoot using .22-calibre rifles on the south side of the site. This is shielded from the Plan Change area by the DSC clubrooms which is in a two-storey building
- The Malvern Small Bore Rifle Club, which operates within a concrete bunker attached to the DSC clubrooms. The future of the tunnel is yet to be decided, as it was damaged by the September earthquake.

76. For safety reasons, all shooting faces south or south-west into vacant farmland, and away from public roads and the Plan Change area.

77. Published information on the relative noise levels from firearms indicates that shotgun noise from the DCTC is the only significant generator of noise at the site, in terms of potential effects to the Plan Change area. As vehicle parking is on the DSC site or on Creyke Rd outside the DSC, and

approximately 200 m from the Pascoe residence, there would be no traffic related noise effects to the Plan Change site.

78. To evaluate the potential for shotgun noise effects, I carried out measurements of noise from the DCTC club-day shoot on 5 December 2010 between 10 am and 3 pm in the vicinity of the DSC, and at the property of Mrs J C Pascoe, 193 Creyke Road, which is on the north corner of Telegraph Rd and Creyke Rd opposite the DSC and is the closest property within the Plan Change area. Mrs Pascoe's house is located approximately 200 m north north-east of the DSC. The weather conditions were calm to light easterly/northwesterly wind drift, and approximately 25 degrees C.
79. Under Rural Rule 9.16.3.3, recreational activities which involve gunfire are not exempt from the Rural zone limits. The recorded levels complied with the daytime limits in Rural Rule 9.16, i.e. 55 dBA L10 and 85 dBA Lmax, and were therefore consistent with noise that would be received from any permitted farming activity. With both traps operating continuously, involving approximately 150 shotgun shots in 10 minutes, the level recorded within 20 metres of the house ranged from 55 to 65 dBA Lmax, and 52 dBA L10. During a 10 minute break between shooting events, the ambient noise level including traffic was 49 dBA L10. This indicates that noise from shooting alone was also about 49 dBA L10, however NZS 6802 applies a 5 dBA 'penalty' to noise with special audible character (i.e. impulsive noise such as gunshots). Applying that penalty, the adjusted level becomes 53 dBA L10 which complies with the Plan limit 55 dBA L10. Higher levels may occur occasionally during south-west conditions, however the level at any time is unlikely to exceed 55 dBA Leq (18 hrs) which is recommended by WHO to avoid serious annoyance.
80. At Cardale Street at the north side of the Plan Change area, noise from the DCTC was audible and in the range 35-45 dBA. This indicates that noise from the DSC is currently audible throughout the entire Plan Change area; however the development of residential properties under the proposed rezoning would progressively attenuate noise and reduce audibility across the area.
81. In my opinion, on the basis of the preceding information, the noise effects of the Darfield Shooting Centre to the Plan Change area would be no more than minor, and no special mitigation measures or changes in the noise rules are necessary to address effects.

- **Noise generated by road traffic**

82. Any development of the Living 2A (Def) zone will generate additional traffic and cause an increase in existing traffic noise. Road traffic noise is not mentioned or specifically excluded from the noise limits of the Selwyn District Plan, however it is usually assessed in terms of accepted guidelines such as those published by WHO, the NZ Transport Agency and relevant standards rather than in terms of general noise limits in District Plans.
83. Table 10 of the Transportation Assessment in Appendix 3 of the application indicates that 2021 evening peak hour traffic through the proposed intersection of Mathias and Cardale Streets would result in 700 vph on Cardale St east, 270 vph on Cardale Street west, and 540 vph on Mathias St south, which are streets with frontages on the proposed Living 1 Zone. Those vehicle trips would be expected to generate noise levels of approximately 60 – 63 dBA at the side of the road (approximately 5 m),

- therefore levels received at residential properties would be approximately 50 dBA Leq taking into consideration the set back of those properties from the road edge which is currently about 10 m on Cardale Street west, and will be approximately 25 m on the proposed Cardale St east extension and 10 m on the proposed Mathias St south extension, taking into account the minimum building and property setbacks required by the Plan. At other times of the day and night, noise levels corresponding to off-peak traffic would be correspondingly lower. WHO and NZTA guidelines indicate that the general limit of acceptability for traffic noise is at or below 55 dBA Leq, therefore levels at or below 50 dBA Leq would not cause more than minor effect to residential amenity.
84. It is anticipated that heavy goods vehicles will operate from the proposed Business 2 Zone during night hours, which may at times cause disturbance to residents with frontages on Cardale St and Mathias St south. From my discussions with Frews and Sicon, I understand that their trucks routinely operate during that timeframe, and Cardale Street is the preferred route south. Mr Frew advised that his company sometimes receives complaints when road surfaces deteriorate and cause empty trailers and decks to bang, but not about general truck movements. In my experience, this is beyond the control of transport operators and can happen on any public road in any district.
 85. At Frews and Sicon, the maximum number of trucks operating during the night is about 10 in each case. In a worst case, if all those truck movements occurred on Cardale St east in 1 hour, a level of 57 dBA Leq would result at the road side and 50 dBA Leq at residential properties. Taking into consideration that noise will be attenuated by residential building structures by 15 dBA, internal levels in bedrooms and living areas would be 35 dBA Leq, which is consistent with the maximum internal design level of 35 dBA Leq recommended in AS/NZS 2107:2000 *Acoustics – Recommended design sound levels and reverberation times for building interiors*.
 86. The number of heavy vehicle movements that could occur during night-time following development of the proposed Business 2 Zone is unknown. If the number increased to say 40 in an hour, this would raise the predicted level to 53 dBA Leq outside/38 dBA Leq inside, which would be noticeable but not necessarily significant in terms of sleep disturbance. In any case, this is a worst case scenario and actual levels are likely to be less as heavy vehicles would not use Cardale St exclusively but would also use Mathias St when heading west or east.
 87. On the balance of this information, I consider that any increase in general traffic and heavy vehicle movements would most likely cause no more than minor adverse effects.

Contaminated Land

88. Living Zone Rule 10.1 and Business Zone Rule 22.1 require resource consents to be obtained for the following land use activities on any site which contains contaminated land or when past activities on the site include those listed in Appendix 10 of the Townships Volume, which have potential to contaminate land:
 - Erecting any dwelling
 - Educational facilities

- Outdoor recreation facilities
 - Growing commercial food crops or rearing animals
89. In its assessment of resource consent applications in the Plan Change area, the Council's discretion would be limited to:
- The adequacy of methods proposed to reduce potential adverse effects to humans or animals
 - The destination of soils that are removed from the site, and the associated level of risk to human health and the environment
 - Further investigation of sites where activities in Appendix 10 have occurred, but where contamination has not been confirmed.
90. I have examined the Plan Change area and carried out research to determine if any contamination land is likely to exist as a result of historical or current activities. This has involved:
- a search of the Council's property files and Environment Canterbury's Listed Land Use Register for all sites in the Plan Change Area ;
 - viewing historic and current aerial photographs;
 - discussions with key council staff (Rosanna Campi, GIS Officer; Wendy Gallagher, Resource Management Officer; Lance Faulkner, Records Officer; David Shovel, Food and Health Standards)
 - site visits to selected properties in the existing Business 2 zone on the south side of Cardale Street, and discussions with occupiers and former occupiers;
 - discussions with Mr Steve Mitchell of Darfield, the former farmer of the Plan Change area from 1989-2006,
 - discussions with representatives of Fuelquip Ltd and Mobil NZ, regarding removal and installation of fuel tanks in the existing Business 2 zone on Cardale Street.
91. These investigations have revealed that the following sites have some history of land use involving potential contamination:
- 4 Mathias Street received building consent in 1991 to erect a utility shed for 2 spray trucks – possibly for a spraying contractor. This site is in the proposed Business 2 zone.
 - 1 Cardale Street has operated as a vehicle repair business, including a paint spraybooth, since the 1980's. Such activity may have previously caused small areas of localised contamination on the site, although there are no signs of this. 1A Cardale Street is currently used for storage.
 - 3 -5 Cardale Street is being used for truck storage by a transport company. A small (2000 litre) aboveground diesel tank is installed. These activities have minor potential for localised contamination on the site, although nothing is evident. The Council issued building consent for a storage shed on the site in 1978.
 - 7 Cardale Street is currently used for rental lockup storage containers. Resource consent was issued in 2008 to convert an existing building to a commercial workshop with an attached 1-bedroom unit. In

1980, building consent was issued to erect a panelbeating workshop. Building consent for a tyre business was issued in 1978. These activities have minor potential for localised contamination on the site, although nothing is evident.

- 9 Cardale Street is currently used as a depot for firewood and a variety of equipment, which have minor potential for localised contamination on the site. The Council's files provide no history for this site.
 - 11 Cardale Street received building consent in 2009 to alter an existing shed for use as a builder's yard and shed. A hairdressing shop operates at the front of the site. Building consent was issued in 1976 for the purpose of manufacturing concrete tanks. There is minor potential for localised contamination on this site.
 - 13 and 15 Cardale Street is operated by Torlesse Travel as a bus depot and workshop. ECan's records state that two underground tanks (9000 litres and 4500 litres) were on site at 15 Cardale Street (previously belonging to Leopard Coachlines, now Torlesse Travel Ltd). Discussions with Fuelquip and Mobil reveal that the tanks and associated contaminated soil were removed in January 2007, and a new 10,000 litre aboveground tank was installed in May 2007. The new tank has integral secondary containment to hold any leakage, and my site inspection found no sign of spillage.
 - The farms in the block do not appear to have included sheep dips or spraying contractors' yards, however gorse and thistles were widely controlled by spraying. In recent times, Roundup has been used, which is not a residual herbicide. Some of the farming activities in the block may also have had small diesel fuel tanks. The potential for localised areas of contamination resulting from these activities cannot be ruled out.
92. My investigations also show that Lovelady Racing Ltd, an engineering workshop/ racing car manufacturer at Lot 1 DP 356582, has minor quantities of lubricants and uses methanol, which have no significant contamination potential. Also, at 17 Cardale Street is a consented dwelling, which in 1992 was used by a jacket manufacturer with no contamination potential.
93. The potential land contamination sources identified in paragraph 91 above would not preclude the development of the Plan Change Area as is proposed, provided that soil contamination at these sites is investigated appropriately at the time of development, and any remediation work that is necessary to reduce the levels of contaminants or otherwise make the land safe for the intended development is carried out before the sites are developed. To ensure this occurs, I recommend that these sites should be identified in the Council's GIS land hazard register and also in Environment Canterbury's Listed Land Use Register so that future land owners are alerted to this.
94. The Council's records and ECan's Listed Land Use Register also list a small number of sites in the vicinity of the Plan Change area which have some historical contamination potential, however I consider that none of them pose any risk to the Plan Change area as they are physically well separated from the proposed Living zones:
- Frew's Transport Ltd, 10-26 Mathias Street - underground fuel tanks installed 1997, replacing old tanks, and also an aboveground waste oil container
 - Selwyn Works Ltd, Mathias St (now Sicon, the Council's contracting company) – a variety of underground fuel tanks removed and replaced by an aboveground tank between 1997 and 2007

- Darfield Brick and Pipe, West Coast Road, Darfield – fuel storage tanks
- Selwyn Plantation Board, Horndon St – old underground tanks
- Darfield Clay Target Club, Cnr Creyke and Telegraph Rd – lead shot

Electromagnetic Radiation

95. Living Zone Rules Clause 6.1.1.2(a) requires utilities to comply with NZ standard exposure levels for electromagnetic radiation, subject to prescribed technical reporting. Business Zone rule 18.1.1.2 and Rural Zone rule 5.1.21 similarly control utilities in the Business 2 zone and the Rural Zone. These rules are consistent with rules in other District Plans (e.g. the Christchurch City Plan) and will provide an appropriate and consistent level of protection of health and amenity within and beyond the boundaries of the Plan Change area.
96. The Council's records show that a cellphone tower was granted consent in 2004 on part of the Frew's site in the existing Business 2 zone on Mathias St, adjacent to Lot 1 DP 60556 and Lot 1 DP 62768 which are within the proposed Business 2 zone. Vodafone submitted a technical report from the National Radiation Laboratory which verifies that maximum electromagnetic radiation levels of this type of tower are very low, i.e. 1.2% of the public reference level in the District Plan referenced standard NZS 2772.1999 at 30 m from the tower. All measured levels complied with the Standard. It can therefore be accepted that the installation would not cause any adverse effects to health and safety in the proposed residential and business environments.

Air Contaminant Discharges

97. Activities in the proposed and existing Business 2 zone and the Rural zone have potential to cause adverse effects to the adjacent Living 1 and 2A zones. That potential is mitigated by rules in the Natural Resources Regional Plan, which sets limits for discharges of air contaminants, controls activities such as the vehicle spray booth at 1 Cardale Street, and imposes controls on the management of crop spraying and spraydrift. The spreading of animal manures is also controlled, subject to the discharge of odour beyond the boundary of the site "shall not be noxious, dangerous, offensive or objectionable to such an extent that it has an adverse effect on the environment". Effects would also be substantially mitigated by the separation provided by Telegraph Rd and Creyke Rd and by existing shelter belts that are on the road boundaries and within farmland.
98. District Plan Rural Rule 9.19 requires management of dust from stockpiling of soil, coal, sawdust, powdered fertiliser or any other unconsolidated material outdoors within 100m of a dwelling not on the same property as the stockpiled material.
99. I consider that these measures are sufficient and no further controls need to be imposed through this Plan Change to mitigate adverse effects on proposed residential properties and avoid reverse sensitivity to activities in the proposed and existing Business 2 Zone, the Rural zone, and established activities in the Business 2 zone on Cardale Street.

100. Dust generated by other normal farming practices such as cultivation, or fallow land is not controlled, however such practices are seasonal and of relatively short duration and are generally accepted in terms of residential amenity at the Rural interface.

POSITIVE EFFECTS

101. In my opinion, the proposed zoning pattern would have a significant positive effect by removing the Business 2 zoning from the south side of Cardale Street, where there is no buffer between that zone and the adjacent Living 1 Zone at Pemberton Drive. The proposed Living 1 zoning of that land would ensure that amenity effects would be consistent with the existing Living 1 Zones at Pemberton Drive and on the north side of Cardale Street.

CONCLUSIONS AND RECOMMENDATIONS

102. The environmental health effects of Plan Change 24 have been assessed with appropriate consideration of the effectiveness of the provisions of the current District Plan and other controls, and the mitigation measures that are proposed.
103. On the basis of this assessment, I consider that potential adverse effects and reverse sensitivity effects of the proposed Plan Change would be addressed by the mitigation described in the Outline Development Plan for this Plan Change, and relevant rules, subject to amendments that I have recommended in this report. Those recommendations are listed below. The relevant paragraph number is included for ease of reference:

Business Zone Status of Activities Rule 13.1.6.2 (a)

Control of Health Act Offensive Trades as Discretionary activities (paragraph 25)

To give Rule 13.1.6.2 (a) its intended effect, it should be reworded to list the activities from Schedule 3 of the Health Act 1956 as Discretionary activities in this Business 2 zone, with the exception of bottle collection and storage which is unlikely to generate any adverse effects in an adjacent Living zone. This would include the existing Business 2 zone on the east and west sides of Mathias Street, to ensure that potential adverse effects and reverse sensitivity effects of such activities that might be established in the existing and proposed Business 2 zones would be addressed consistently in relation to the proposed Living Zones.

Business Zone Hazardous Substances Rule 20.1.1.1

Mitigation of effects of Hazardous Substances Emergencies (paragraph 42)

To mitigate adverse effects of hazardous substances emergencies on the proposed Living Zones, amend Business Zone Rule 20.1.1.1 so that the more stringent quantity limits for the Business 1 zone apply in the proposed Business 2 Zone. This amendment should also include the existing Business 2 Zone on Cardale and Mathias Streets, with the exception of complying storage that is subject to existing use rights.

Amendments to current noise rules

- (i) Amendments to address anomalies (paragraph 55)
 - for the purposes of Living Zone Rule 10.6.1, Business Zone rule 22.14 and Rural Zone Rules 9.14 - 9.16, to the extent they apply to noise generated in or received in the area covered in the Outline Development Plan for Plan Change 24, noise shall be measured and assessed in accordance with NZS 6801:1991 *Measurement of Sound*, and NZS 6802:1991.
 - in the area covered in the Outline Development Plan for Plan Change 24, construction noise shall be exempted from Living Zone Rule 10.6.1, Business Zone rule 22.14 and Rural Zone Rule 9.16, and shall be controlled by NZS 6803:1999 Acoustics – construction noise.

- (ii) Revision of the limits in Business 2 zone (paragraph 58)

Amend Rule 22.1.1.4 (as amended by Plan Change 10) to change the daytime limit from 55 dBA L10 to 50 dBA L10.

Noise mitigation (paragraphs 63-66)

In the ODP, show and specify the following mitigation:

- a) Erection of acoustic fencing at
 - i. the common (rear) boundaries of properties from 1A to 15 Cardale Street with the existing right-of-way which runs behind them, to protect new development to the south of that right-of-way; and
 - ii. at any other boundary of those sites that is shared with new residential development of an adjacent site under the proposed Living 1 zoning.

The minimum specification of such fencing would be 2.2 m in height with a surface mass of at least 10 kg/m² (e.g. 25 mm treated timber, concrete tilt slab or block) without gaps in its construction.

- b) Retention of the existing right-of-way which runs behind 1 to 17 Cardale Street, to separate those activities from the bulk of the proposed Living Zone. This right-of-way is not shown in the ODP.
- c) To mitigate noise effects from Lovelady Racing Ltd and Darfield Collision Repairs on residential development in the proposed Living 1 zone on Lot 2 DP 53747, either:
 - i. Increase the setback between the workshops and any future residential property in Lot 2 DP 53747 to at least 60 m. This setback could include the proposed road reserve extending from Mathias Street through the Plan Change area that is shown in the ODP.

or:

- ii. Erect a continuous barrier with an effective height of 3 metres either along the east boundary of Darfield Collision Repair and Lovelady Racing Ltd, or along the western boundaries of subdivided residential sites in Lot 2 DP 53747 that are within 60 m of Lovelady Racing Ltd and Darfield Collision Repair. Suitable materials for such a barrier are earth bunding and/or a fence with surface mass of 10 kg/m² (e.g. 25 mm treated timber, concrete tilt slab or block), without gaps in its construction. The final location and extent would be dictated by the final location and layout of the Mathias St south extension.
- d) Where any residential site is developed on land which adjoins Lovelady Racing Ltd's site at Lot 1 DP 356582 at its north, west or south boundaries, erect acoustic fencing at the common boundary 2.2 m in height with a surface mass of 10 kg/m² and without gaps in its construction.

Contaminated land

Activities listed in Townships Volume Appendix 10 (paragraph 93)

Sites with potential land contamination identified in paragraph 91 should be identified in the Council's GIS land hazard register and also in Environment Canterbury's Listed Land Use Register so that future land owners are alerted to this potential so that soil contamination at these sites is investigated appropriately at the time of development, and any remediation work that is necessary to reduce the levels of contaminants or otherwise make the land safe for the intended development is carried out before the sites are developed.

104. I acknowledge that further work would need to be done to refine the wording of rules arising from these recommendations to make them effective and enforceable, and I am prepared to be involved in that process.

Russell Malthus
Senior Environmental Health Consultant

ATTACHMENT 1 District Plan environmental effects-based rules

<u>Category</u>	<u>Zone</u>	<u>District Plan Volume/Part</u>	<u>District Plan Rule</u>
Noise and Vibration	Living	Townships Part C10	10.6.1, 10.6.2
	Business	Townships Part C22	22.4 - 22.5
	Rural	Rural Volume Part C9	9.14 – 9.17
Light Spill	Living	Townships Part C10	10.8
	Business	Townships Part C22	22.6
	Rural	Rural Volume Part C9	9.18
Hazardous Substances	Living	Townships Part C8 and Part E9	All of Part C8, and Appendix 9
	Business	Townships Part C20 and Part E 9	All of Part C20, and Appendix 9
	Rural	Rural Volume Part C7, and Part E Appendix 15	All of Part C7, and Appendix 15
Contaminated Land	Living	Townships Part C10, and Part E Appendix 10	10.1, and Appendix 10
	Business	Townships Part C22	22.1
	Rural	Rural Volume Part C9	9.6
Utilities (e.g. cellphone tower radiation, power voltage, gas pressure)	Living	Townships Part C6	6.1.1
	Business	Townships Part C18	18.1.1
	Rural	Rural Volume Part C5	5.1.2
Waste	Living	Townships Part C9	All of Part C9
	Business	Townships Part C21	All of Part C21
	Rural	Rural Volume Part C8	All of Part C8
Keeping of Animals (incl commercial rearing, boarding, intensive livestock production)	Living	Townships Part C10	10.3
	Business	Townships Part C22	22.2
	Rural	Rural Volume Part 9	9.8 – 9.10
Aircraft movements	Living	Townships Part C10	10.5
	Business	Townships Part C22	22.3
	Rural	Rural Volume Part C9	9.14
Dust	Rural	Rural Volume Part C9	9.19

ATTACHMENT 2
DISTRICT PLAN ENVIRONMENTAL EFFECTS-BASED RULES

<u>Category</u>	<u>Zone</u>	<u>District Plan Volume/Part</u>	<u>District Plan Rule</u>
Noise and Vibration	Living	Townships Part C10	10.6.1, 10.6.2
	Business	Townships Part C22	22.4 - 22.5
	Rural	Rural Volume Part C9	9.14 – 9.17
Light Spill	Living	Townships Part C10	10.8
	Business	Townships Part C22	22.6
	Rural	Rural Volume Part C9	9.18
Hazardous Substances	Living	Townships Part C8 and Part E9	All of Part C8, and Appendix 9
	Business	Townships Part C20 and Part E 9	All of Part C20, and Appendix 9
	Rural	Rural Volume Part C7, and Part E Appendix 15	All of Part C7, and Appendix 15
Contaminated Land	Living	Townships Part C10, and Part E Appendix 10	10.1, and Appendix 10
	Business	Townships Part C22	22.1
	Rural	Rural Volume Part C9	9.6
Utilities (e.g. cellphone tower radiation, power voltage, gas pressure)	Living	Townships Part C6	6.1.1
	Business	Townships Part C18	18.1.1
	Rural	Rural Volume Part C5	5.1.2
Dust	Rural	Rural Volume Part C9	9.19

WAIRARAPA COMBINED DISTRICT PLAN
PROPOSED PLAN CHANGE 3 - MUNICIPAL WASTE WATER
TREATMENT PLANT AND DWELLING SETBACK STANDARDS
- RULE 4.5.2

DECISION OF COMMISSIONER

1. The hearing of submissions on this proposed Plan Change proceeded at Masterton on 30 April 2012.
2. Two preliminary issues were raised at the commencement of the hearing:
 - 2.1 Both the Carterton District Council and the South Wairarapa District Council sought to be heard but neither had lodged a submission;
 - 2.2 Sustainable Wairarapa Inc, while having made a submission, sought to address a point about the wording of the proposed rules that was not covered by their submission because they (Sustainable Wairarapa) had assumed, wrongly as it turned out, that the wording concerned was a typographical error when in fact it was not.
3. I am afraid that the answer to both of these points is clear as a matter of law: the position is that unless a submission has been lodged and the ambit of that submission includes the relief the would-be submitter contends for, there is simply no jurisdiction to entertain that relief. There is no discretion or power of waiver that the local authority (or a Commissioner) can bring to bear in a spirit of benevolence and pragmatism, and accordingly I have declined to hear either of the two Councils and I cannot entertain the Sustainable Wairarapa request regarding the wording it thought was a typographical error.
4. I turn now to the substantive issues.

A handwritten signature in black ink, located in the bottom right corner of the page. The signature is stylized and appears to be a combination of letters, possibly 'B' and 'F'.

5. It became evident that an issue that had featured significantly in the submissions disappeared altogether as a matter of contest following the s.42A report. It was this: a number of submissions (perhaps not unreasonably) had raised concerns as to whether all the setback distances for permitted standards operated within the boundary of the property of the wastewater treatment operator/disposer. A detailed reading of the proposed rules demonstrates that they do.
6. Several other relatively discrete topics appeared to be unchallenged at the hearing and I will address those next. They were as follows:
 - 6.1 The proposed definitions (and/or the need for them) of “Municipal Treatment Plant”, “Effluent Storage Pond” and “Oxidation Pond” were put in issue through the submissions of Sustainable Wairarapa and the Homebush Neighbours Group. In short, after those submission the s.42A report recommended amendments to those definitions which, following my inquiry at the hearing, seem to now meet with approval.
 - 1.1 The removal of the words “where the effluent is treated to” and “treated to” in Rule 4.5.2 were in the same position.
 - 1.2 The removal of the words ‘effluent distribution or’ from Rule 4.5.2(k)(i)(4) was also recommended in the s.42A report, although in that case it was more a matter of rendering the proposed rule more consistent with the Regional Plan. Nonetheless, it was similarly not opposed by submitters at the hearing.
7. I uphold the submissions of Sustainable Wairarapa and the Homebush Neighbours Group to the extent that the above recommended amendments are to be made.
8. There are then three remaining matters that were the real issues of contest:
 - 8.1 The use of a median as a standard in the rule.

8.2 The wind speed maximum.

8.3 The various setback distances.

9. I propose to address the first issue discretely, but then to address the second and third issues together.
10. With regard to the use of a median as a standard, the submitters whose submissions were concerned with the degree to which their residential or neighbouring amenities might be affected, raised concerns about the impacts of discharges that fall outside that median.
11. Mr Martin quite properly made the point that the use of a median potentially allows a considerable latitude for occurrences that are well outside the median number because, of course, a median is simply the middle number, and not an average. He is unquestionably correct about that and the top end measurements could be much higher than the median. (As it happens, the Municipal Wastewater Treatment Plant performance figures are within a relatively tight span, but that is not determinative here necessarily because these rules would apply to all wastewater treatment operators/disposers.)
12. However, the problem that then arises is what other standard should be used in lieu of a median. What then emerged was that a median is a standard used not only by the Regional Council, which is the body charged with the jurisdiction for all water/discharge issues for the entire region, but also apparently other parts of New Zealand. In other words, it is a standard methodology for this issue used throughout the country.
13. It would obviously be inappropriate here (particularly in the absence of expert evidence) for me to attempt to pioneer some alternative. I am satisfied that the use of a median still enables a workable rule, remembering of course that limitations on maxima can still be imposed and may well be appropriate as conditions in the context of the site specific resource consent that would still be needed. And that is where, for example, appropriate buffer distances from identified water bores



can and should be addressed with site appropriate conditions that might well impose greater setback distances than the proposed rule contemplates. Similarly, monitoring detail, such as how often and any other limits, would be fixed in resource consent conditions for the specific site.

14. With regard to the wind speed parameter, Sustainable Wairarapa and the Medical Officer of Health (Dr Palmer) sought a higher wind speed maximum and thus greater liberalisation of that parameter in favour of any wastewater treatment operator/disposer. Unsurprisingly, the submitters whose neighbouring amenities might be affected opposed that and supported the figure as notified, and in respect of the various setback distances, sought greater distances.
15. On the evidence the wind speed and setback distance issues can be considered together.
16. On both these topics the hearing was greatly assisted by the evidence of Dr Hewitt who was able to explain the science involved in these factors and to answer questions posed by a variety of parties.
17. It is clear from Dr Hewitt's evidence that the modelling work of the international study group known as the "Spray Drift Task Force" that is the foundation for his conclusions, addresses and inter-relates wind speed and set back distances (and, for that matter, other factors such as droplet size, spray release height, air temperature and relative humidity, temperature inversions and spray trajectory). In short, he concluded that the modelling allowed a 25 metre buffer for 0.1% of the application rate at wind speeds up to 63 km per hour, but nonetheless advised a maximum wind speed of 43 km per hour as a practical upper limit based on modelling for best application or management practice (ie low pressure, low boom sprinkler systems without end guns).
18. Armed with that advice, the Council has proposed a rule with a much more conservative maximum of 14.4 km per hour for wind speed. As noted earlier, that conservative approach has actually triggered



submissions that advocate a relaxation of that standard, no doubt on the grounds of affordability, amongst other factors.

19. Mr Martin offered the suggestion that there be two standards, one for residential buffers and one for the farming community. Generous and well meant though this suggestion was, I accept the Council's response to this which is that it would be complex to differentiate between the two communities and in any event the farming community still has residential amenities to protect – as is evident from the submissions received from Mr Perry and the Homebush Neighbours Group. Indeed those submitters emphasised the desirability of increasing the setback distance in order to protect the amenities of neighbouring properties and they urged the need for recognition of a margin of error and/or a buffer before the setback distances are measured.
20. Submitter 7 (Mr and Mrs Scarlett) sought an independent professional study to assess risks to public health and safety of allowing effluent discharge as close to neighbouring property boundaries as proposed, and urged that impact on the amenities of those properties be considered in fixing setback distances. In my view Dr Hewitt's evidence addresses the setback distances quite authoritatively and I am comforted that the Medical Officer of Health, Dr Palmer, considered that the setback distances are adequate to minimise human health risks from spray drift. I am satisfied that amenity values will not be compromised.
21. Weighing all those factors, I have come to the conclusion that the Council has got the balance right on these two topics in the proposed rules. It has taken the expert evidence of Dr Hewitt, who had incorporated a margin of error in his advice, and then it has applied a further margin to reach a conservative threshold. In my view, that is a responsible approach and it may be that its inherent conservatism has not been completely understood by all.



22. For the above reasons, the provisions of the proposed Change 3 are fixed by this decision as per the annexed schedule.

DATED the 9th day of May 2012


.....
R J B Fowler
Hearings Commissioner

SCHEDULE

New Rule 4.5.2(d)

Rule 4.5.2 Standards for Permitted Activities

- (d) Minimum dwelling setback
- (i) 10 metres from the front road boundary of sealed roads.
 - (ii) 25 metres from the front boundary of unsealed roads.
 - (iii) 25 metres from all other boundaries except, that if the Certificate of Title for the site was issued before 29 March 2008, or resource consent to subdivide was granted for the site before 29 March 2008 then the setback can be 10 metres.
 - (iv) 25 metres from any Significant Waterbody listed in Appendix 1.9.
 - (v) In the South Wairarapa District, 20 metres from the banks of any river and stream whose bed which has an average width of 3 metres or more. (Note: for the purposes of this rule “bed” is the definition applied in section 2 of the Resource Management Act for a “bed” in relation to any river for the purposes of esplanade reserves).
 - (vi) 5 metres from any other waterbody.
 - (vii) 35 metres from the edge of a plantation forest under separate ownership.
 - (viii) 300 metres from a boundary with untreated agricultural effluent disposal areas.
 - (ix) 300 metres from an oxidation pond.
 - (x) 150 metres from the perimeter of a spray disposal area with e-coli concentrations of less than a median of 2,000cfu/100ml.



- (xi) 75 metres from the perimeter of a surface disposal area with e-coli concentrations of less than a median of 2,000cfu/100ml.
- (xii) 25 metres from the perimeter of a spray disposal area with e-coli concentrations of less than a median of 100cfu/100ml using low pressure (<1.4 bar), low boom (<1.52 metres) sprinkler systems without end guns, at a wind speed of 4 metres per second (14.4km per hour) including sustained gusts.
- (xiii) 25 metres from the perimeter of a surface disposal area with e-coli concentrations of less than a median of 100cfu/100ml.
- (xiv) 500 metres from an intensive farming activity under separate ownership.

New Rule 4.5.2(m)

- (m) Disposal of Wastewater from a Municipal Wastewater Treatment Plant shall comply with the following setback distances:
 - (i) Wastewater with e-coli concentrations of less than a median of 2,000cfu/100ml:
 - (a) 125 metres from the property boundary for spray irrigation, eg Centre Pivot.
 - (b) 50 metres from the property boundary for surface irrigation, eg Border Strip.
 - (c) 5 metres from the property boundary for any subsurface disposal.
 - (ii) Wastewater with e-coli concentrations of less than a median of 100cfu/100ml:
 - (a) 25 metres from the property boundary for spray irrigation, eg Centre Pivot using low pressure (<1.4 bar), low boom (<1.52 metres) sprinkler systems without end

guns, at a wind speed of 4 metres per second (14.4km per hour) including sustained gusts.

- (b) 25 metres from the property boundary for surface irrigation, eg Border Strip.
- (c) 5 metres from the property boundary for any subsurface disposal.

Note: where the treated effluent exceeds a median of 2,000cfu/100ml resource consent for a Restriction Discretionary Activity will be required unless the wastewater disposal is authorised by an existing consent or designation.

Consequential change to Rule 4.5.2(k)(i)(4)

Rule 4.5.2(k)(i)

- (4) No effluent holding pond shall be located within 300 metres of an existing dwelling that is under separate ownership.

Note: It should be noted that the Exception listed in the existing Rule 4.5.2(d) shown as (x) has been incorporated into Rule 4.5.2(d)(iii).

Definitions

Municipal Wastewater Treatment Plant:

A municipal Wastewater Treatment Plant is a facility designed to treat municipal wastewater by reducing contaminants from wastewater and household sewage, both runoff (effluents) and domestic. It includes physical, chemical and biological processes for reducing contaminants. Its objective is to produce environmentally safe fluid waste stream (or treated effluent) and a solid waste (or treated sludge) suitable for disposal or re-use.

Effluent storage pond:

Effluent Storage Ponds are ponds built to store untreated effluent before it is applied to land, eg dairy effluent.

Oxidation Pond:

A man-made (anthropogenic) body of water in which waste is consumed by bacteria, or a pond that contains partially treated wastewater which is then left to grow algae and bacteria which decompose the rest of the waste.

