BEFORE THE HEARINGS PANEL FOR PROPOSED PLAN CHANGE 21 TO THE MACKENZIE DISTRICT PLAN

UNDER the Resource Management Act 1991 (RMA)

IN THE MATTER of Proposed Plan Change 21 to the Mackenzie District

Plan

STATEMENT OF EVIDENCE OF ALANNA MARISE HOLLIER ON BEHALF OF THE CANTERBURY REGIONAL COUNCIL

3 March 2023

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SUMMARY STATEMENT

- The Canterbury Regional Council (CRC) sought amendments to various chapters proposed under Plan Change 21 (PC21) to the Mackenzie District Plan (MDP). These amendments were sought in order that the provisions would better give effect to the Canterbury Regional Policy Statement (CRPS) and to ensure that the CRC can continue to undertake its statutory functions and responsibilities.
- I have reviewed the s42A report prepared by Ms Rachael Willox and Mrs Liz White for Mackenzie District Council (**MDC**) and my evidence presents my opinion on their recommendations, with reasons, and suggests additional points for consideration. Specifically, these are in relation to the following topics:
 - (a) Water quality clarifying to plan users that connection to the reticulated sewer network in Twizel is expected, and that development constraints apply to the townships of Albury and Kimbell based on the need to obtain discharge consent from the CRC;
 - (b) River engineering inserting an advice note to highlight to plan users that authorisation may be required under the Canterbury Flood Protection and River Drainage Bylaw 2013 (Bylaw) for various activities occurring adjacent to some drains and watercourses;
 - (c) Flood hazard ensure new development in the Large Lot Residential Zone (LLRZ) located to the north of Twizel is not subject to unacceptable flood risk inconsistent with the CRPS;
 - (d) Air quality ensuring that adverse effects of activities within the Twizel General Industrial Zone (GIZ), that may be incompatible with residential uses are appropriately managed prior to development.

Introduction

- 3 My full name is Alanna Marise Hollier.
- I am employed as a Planner at the Canterbury Regional Council (**CRC**), and I have held this position since September 2017.

Qualifications and Experience

- 5 My qualifications include a Master of Arts in Coastal Geography from the University of Auckland.
- I have worked in planning since 2017 and have experience in plan making and policy analysis. This experience includes drafting submissions on national legislation, district council plan changes and district council notified consents. I have also provided expert planning evidence at a district council hearing. I have been involved in previous plan changes notified by Mackenzie District Council as part of the wider District Plan Review including Plan Changes 18, 19 and 20.

Code of Conduct

- I can confirm that I have read and am familiar with the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023. I have complied with the Code of Conduct in preparing this evidence and I agree to comply with it while giving any oral evidence during this hearing. Except where I state that I am relying on the evidence of another person, my evidence is within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.
- Although I am employed by the Canterbury Regional Council, I am conscious that in giving evidence in an expert capacity that my overriding duty is to the Hearings Panel.

Scope of evidence

- 9 This evidence relates to PC21. The CRC lodged a submission on PC21 largely seeking further alignment with the CRPS in relation to certain provisions in PC21.
- 10 My evidence has been structured to address:
 - (a) The CRC's interest in PC21;

- (b) A summary of the CRC's submission, and my opinion on whether the recommended amendments of the section 42A authors address the concerns raised in this submission.
- 11 In preparing my evidence I have reviewed the following documents:
 - (a) The PC21 notified provisions;
 - (b) The Section 32 report for PC21 prepared and notified by Mackenzie District Council (MDC);
 - (c) The CRC's submission on PC21;
 - (d) The summary of decisions requested on PC21;
 - (e) The section 42A report, associated appendices and memorandum;
 - (f) The legal submissions on behalf of MDC regarding scope of PC21;
 - (g) The relevant provisions of the CRPS;
 - (h) The relevant provisions of the Canterbury Air Regional Plan (CARP);
 - (i) The relevant provisions of the Canterbury Land and Water Regional Plan (LWRP);
 - (j) The relevant requirements of the Canterbury Flood Protection and Drainage Bylaw (Bylaw);
 - (k) The relevant matters within the National Planning Standards 2019; and
 - (I) The evidence of Mr Oliver Hermans on behalf of the CRC.
- 12 My evidence addresses the planning issues raised by the CRC's submission.

Canterbury Regional Council's interest in PC21

The CRC has responsibilities relating to the establishment, implementation, and review of objectives, policies, and methods to achieve integrated management of the natural and physical resources of the region; and has functions under section 30 of the Resource Management Act 1991 (RMA) to administer the CRPS. The purpose of the CRPS is to establish policies and methods to achieve integrated management of the region's natural and physical resources.

- Section 75(3) of the RMA requires that a district plan (in this case PC21) must give effect to several higher order statutory planning documents including a regional policy statement. The CRPS was notified in 2011 and was made operative in 2013.
- Section 75(4) of the RMA requires that a district plan (in this case PC21) is not inconsistent with a regional plan that addresses regional council functions.
- The focus of the CRC's submission is to support MDC in implementing and giving effect to the CRPS, and to ensure that the provisions of PC21 are consistent with the regional planning framework.
- A secondary focus is to ensure that PC21 provides for CRC to continue to undertake its statutory functions and responsibilities.
- Specific provisions of the CRPS relevant to my evidence are assessed further in the body of this statement.

Overview of the Canterbury Regional Council's submission

- 19 In summary, the CRC's submission on PC21 sought the:
 - (a) Inclusion of an advice note referring to the need to comply with the Bylaw;
 - (b) Inclusion of provisions to:
 - ensure new development in the LLRZ located to the north of Twizel is not subject to unacceptable flood risk;
 - (i) require new development to connect to the Twizel sewer network where connection is available:
 - (ii) In relation to development in Kimbell and Albury:
 - a. acknowledge that development potential is limited by the need to obtain a discharge consent from the CRC;
 - b. ensure new allotments are a suitable size to accommodate onsite discharges of wastewater and stormwater;
 - c. ensure new development does not constrain the ability to effectively manage wastewater and stormwater discharges onsite; and

(iii) maintain the amenity of adjoining residential zoned land from the adverse effects of activities in the GIZ in Twizel.

Recommendations in the section 42A report

- The section 42A report has responded to the majority of the CRC's submission points on PC21.
- To assist the Panel, my evidence focusses on the submission points in CRC's submission that have not been accepted or fully accepted by the s42A authors and where I consider further changes are required from that recommended in the s42A report to give effect to the CRPS (or are otherwise appropriate).
- The remainder of my evidence follows the sequence of topics set out in the s42A report.

Residential zones (regarding wastewater infrastructure)

- The cumulative effect of on-site wastewater discharges on water quality, particularly regarding human effluent, constitutes an emerging issue within Canterbury. On-site wastewater discharges have the potential to adversely affect water quality within groundwater and groundwater-fed surface waters, consequently undermining the water quality limits of our larger surface water bodies within Canterbury.
- 24 Comments throughout my evidence on the amendments proposed under the notified version of PC21, and the s42A amendments have been provided in light of this emerging issue with the additional amendments requested within **Appendix 1** to this evidence. In my opinion the approach taken to manage this issue that I have recommended is appropriate for the planned development of Twizel, Kimbell and Albury as anticipated by PC21.
- 25 The CRC's submission raised concern that further development enabled by PC21 could adversely affect water quality¹. The methods proposed by CRC to address this concern focussed on aligning plan provisions and consent processes which would consequently provide greater certainty to plan users, and both Councils.

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¹ Paragraph 16, Canterbury Regional Council submission on PC21 to the Mackenzie District Plan.

Twizel

- 26 CRC's submission sought amendments to Standard LLRZ-S1.1-3 to make it clear to plan users that properties were required to connect to the sewer. This was sought on the premise that it was MDC's intention for new development in Twizel within the LLRZ and Specific Control Areas 1 and 2 to connect to the sewer.
- The amendments sought to these standards can be separated into two parts. Firstly, the removal of the words "or the residential unit is not connected to a reticulated sewerage system but the wastewater discharge is authorised by Environment Canterbury" was sought, as requiring all development within the LLRZ in Twizel and Fairlie to connect to the sewer would make this part of the clause redundant.
- The second part of the relief reformatted the standard for readability to ensure the expectation for development to connect to the sewer was clear. These amendments were rejected in part by the reporting officers.
- The s42A report supplied two reasons as to why the second part of CRC's submission point was rejected, including:
 - (a) That matters regarding the connection to the sewer are best done at the time of subdivision; and
 - (b) That connection to the sewer would be required under the Building Code, Clause G13 *Foul Water*.
- Where development includes a proposal to subdivide, I agree with the reporting officers that this could be dealt with at the time of subdivision, and consequently addressed at a later stage in the District Plan Review. However, not all development includes an application for resource consent to subdivide, and as such I disagree with relying solely on the subdivision provisions to require connection to the sewer for all development.
- As the subdivision provisions are only triggered where a subdivision application is lodged, it is not completely effective to rely on these provisions to require connection to the sewer for development occurring independent of subdivision.

- 32 As per the s42A recommended amendments, development occurring independent of subdivision can be undertaken as a permitted activity, irrespective of connection to the sewer.
- The CRC notes there are practical limitations to this situation eventuating, being increased costs and processes for person(s) choosing not to connect to an available sewer. However, it is my view that if the intent is for people to connect to the sewer, this should be made clear within the rule framework.
- For development occurring independent of subdivision, it is my view that outlining this expectation is best located within the LLRZ provisions as it ensures a direct connection between the provisions allowing the development, and those ensuring that connection to the sewer is achieved. For these reasons, I recommend a small amendment to the CRC's initial relief sought as outlined in **Appendix 1**.
- 35 The Building Code, Clause G13 Foul Water focuses on the safe disposal of foul water for sanitation and amenity purposes (odour and accumulated matter), rather than prescribing which method (ie. on-site wastewater management, or connection to a sewer) is appropriate in which situation. It also does not address water quality. I therefore disagree with the reporting officers' reasoning of the Building Code being an appropriate means to ensure connection to a sewer.
- The broader implications of removing the requirement within LLRZ-S1 to connect to a sewer where it is available will create misalignment in consent processes and planning documents across the regional and district council. This is due to the district plan (under the proposed PC21 amendments) appearing to allow an increase in development capacity, while this may not actually be able to be realised if the development does not connect to the sewer, due to the requirement to obtain a discharge consent from CRC. The s42A amendments create further misalignment than that which was present under the notified provisions.
- As outlined in paragraph 27 of the CRC's submission, the granting of discharge consent cannot be guaranteed, even where capital investment has already occurred within a property. Enabling development as a permitted activity (albeit indirectly) under the Mackenzie District Plan (MDP), where a consent would be required by the CRC (and is not

guaranteed to be granted), may set a misleading expectation of available development options.

It is also inconsistent with the Regional Plan. As stated above, the RMA requires that District Plans must not be inconsistent with a Regional Plan². A discharge consent would be required under Rule 5.9 of the LWRP for any development proposing to discharge wastewater to land or water via land where a sewer is available. Further, Rule 5.8 of the LWRP may also be breached based on the permitted activity lot size of the LLRZ, and Specific Control Areas 1 and 2.

Retaining the part of the clause requiring connection to the sewer within the LLRZ, and Specific Control Areas also clarifies what is appropriate within a permitted activity rule. Where connection is available, but not preferred by the applicant, it indicates (through a discretionary activity status) that other matters need to be considered to assess the appropriateness of the application, and that this activity is contrary to the objective of the MDP. It also creates the opportunity to align crossagency consent processes (between MDC and CRC) and ensures any adverse effects on water quality could be determined through the regional council consent process.

In terms of statutory jurisdiction, I consider it appropriate for the MDP to have a discretionary activity rule in relation to development not connecting to the sewer. Where development does not connect to the sewer, a resource consent with the CRC will be required, as discussed further below. There will be matters within MDC's statutory jurisdiction that can impact the effectiveness of on-site wastewater management systems. These include lot size, the location of buildings, the size of buildings and the size and location of impermeable areas. These matters can be assessed through a discretionary consent pathway.

I therefore recommend the amendments previously sought in the CRC submission are accepted as in my opinion these provide greater clarity to plan users, improve plan effectiveness, and align local and regional processes and provisions.

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² s75(4)(b) of the Resource Management Act 1991

Kimbell and Albury

- The CRC submission sought a variety of methods to ensure that development within Kimbell and Albury, enabled by PC21, occurs in a way that provides certainty to plan users and consent applicants in relation to wastewater and stormwater servicing. The methods proposed to address this issue included:
 - (a) Listing land use activities that require a discharge consent from the CRC as a restricted discretionary activity;
 - (b) Amendments to the Mixed Use Zone (MUZ) density standards so that the standard applies to all permitted activities that involve a discharge of wastewater or stormwater;
 - (c) Minor amendments to the relevant policies in the LLRZ, Low Density Residential Zone (LRZ) and MUZ to provide sufficient guidance for consent applications that required a resource consent to discharge to ground;
 - (d) Amendments to the introductions for the LLRZ, LRZ and MUZ to outline that there are potential development constraints to these townships due to the lack of reticulated services;
 - (e) Amendments to the subdivision rules of the LLRZ, LRZ and MUZ so that subdivision in these zones is a restricted discretionary activity, with discretion limited to the size of the allotment; or if out of scope;
 - (f) Alternatively, the preparation of Development Area Plans for Kimbell and Albury to ensure development can be planned in a way that enables growth and maintenance of water quality simultaneously.
- The s42A report provided a varied response to these submission points and introduced a new servicing standard as the preferred means to address the CRC's concerns.
- I agree with the proposed servicing standard recommended to be introduced to the LLRZ, LRZ and MUZ by the reporting officers (subject to three amendments) on the premise that the servicing standard appears to require a discharge consent be obtained prior to or at the same time as the activity being assessed under the MDP.

- This will enable any actual or potential effects on water quality to be assessed by the CRC before building consent is issued by MDC, and development begins. This minimises the potential for consent to be declined by the CRC based on effects on water quality, as described in paragraph 27 of the CRC submission.
- The first amendment I recommend relates to the new servicing standards (LLRZ-S6, LRZ-S7, and MUZ-S8), and the proposed amendments to LLRZ-S1.2, LRZ-S1.2 and MUZ-S1.1.c which result in duplication, with each set of provisions requiring authorisation from the CRC where a discharge consent is required. This could be resolved by a minor amendment to LLRZ-S1.2, LRZ-S1.2 and MUZ-S1.1.c and retaining all reference to wastewater discharge authorisation within the servicing standards (as set out in **Appendix 1** to my evidence).
- The second amendment I recommend relates to the proposed drafting of the servicing standards that creates an "all or nothing" approach to wastewater management in Kimbell and Albury. While the anticipated density of development (under PC21) in Kimbell and Albury would usually require a resource consent to discharge wastewater to land from the CRC based on lot size, the use of 'requiring wastewater disposal' presents an issue. While wastewater disposal will be required for most properties, wastewater disposal can occur without a discharge to land, even where no sewer is present. This can be achieved through the use of holding tanks, or similar, where the effluent is stored, then collected and managed off-site.
- In my view, a minor amendment to the terminology used within the servicing standards can resolve these issues. The current drafting would also capture any discharge to sewer. While MDC do not currently propose a sewer in Kimbell or Albury, it is possible that a sewer may be provided in the future. Accordingly, the new standard should be drafted with that in mind.
- It is also unclear from the drafting of the servicing standards whether stormwater would be captured within 'wastewater disposal'. The CRC submission discussed both stormwater and wastewater, and sought a restricted discretionary rule for any land use activity that required a discharge consent. For that reason, it is my view that the servicing standards should be drafted in a way to manage both stormwater and wastewater discharges.

- The rule frameworks under the LWRP that require stormwater and onsite wastewater consents differ. This presents an issue with the drafting of the servicing standards as the discharge of stormwater to land, and to water via land, can often meet the CRC permitted activity conditions.
- Unlike on-site wastewater, there are no conditions, such as lot size, that would require consent for stormwater for all properties within Kimbell and Albury. The "all or nothing" drafting approach could then require proof via "authorisation" from the CRC for both activities that require consent, and those that can be undertaken as a permitted activity. This will place additional costs and resource requirements on the CRC, and their customers as it may mean where the activity is permitted, a certificate of compliance is required from CRC to provide evidence of an "authorisation". A minor amendment to the servicing standards could achieve the relief sought by the CRC (i.e. that applicant's obtain discharge consent from the CRC before building consent is granted), while also improving the efficiency of the current provision.
- The third recommended amendment relates to the servicing standards only applying to minor residential units and buildings and structures not otherwise listed. The CRC submission sought insertion of a restricted discretionary activity rule for any activity where a wastewater or stormwater discharge consent was required.
- As the purpose of the relief sought was to promote obtainment of a discharge consent from the CRC prior to building consent approval for any activity that involved a discharge, I disagree with only applying the servicing standards to minor residential activities and buildings and structures not otherwise listed within the MUZ rules. The lack of reference to these standards means they are not implemented through the LLRZ and LRZ rules frameworks, and not fully implemented through the MUZ rule framework. Accordingly, in line with the CRC submission, I recommend reference to the applicable standard for any activity requiring a discharge consent from the CRC.
- As the CRC submission sought insertion of a restricted discretionary rule, with matters of discretion limited to lot size, I believe there is scope to request amendments to the LLRZ, LRZ and MUZ restricted discretionary activity matters of discretion to ensure this matter can be assessed as part of a land use consent application. I therefore request amendments to any restricted discretionary activity requiring a discharge

- to land of domestic wastewater or stormwater to land, or water via land to include a matter of discretion addressing lot size.
- The s42A report provides no discussion around the CRC's request to amend policies associated with the LLRZ, LRZ and MUZ chapters. The CRC sought these amendments to provide sufficient guidance for consent applications that breach the density standards. Paragraph 26 of the CRC submission outlines ways in which building location, size and extent, as well as lot design, can impact the effectiveness of on-site wastewater systems. The importance of this requested amendment is that all of these matters are within the remit of MDC to manage and cannot be addressed through the CRC's consent processes.
- The s42A report also provided no discussion surrounding the CRC's proposed amendments to the introductions of the LLRZ, LRZ and MUZ. The benefit in amending the introductions is to make it clear to plan users that there are potential development constraints on these townships due to the lack of reticulated services, and the need to ensure that water quality is not adversely affected by the proliferation of on-site wastewater treatment systems (despite the up-zoning created by PC21). I therefore continue to recommend that amendments are made to the introductions of the LLRZ, LRZ and MUZ as sought in the CRC submission, and have included these amendments in **Appendix 1**.

Management of Flood Inundation Risk

- 57 CRC's submission sought amendment to the MDP's definition of High Flood Risk. Alternatively, if this request was out of scope, the submission sought that any development occurring between Glen Lyon Road and the Twizel River is located atop the terrace. These amendments were sought because the CRC is concerned that additional development between Glen Lyon Road and the Twizel River could be enabled on land subject to significant flooding, specifically flooding that could meet the CRPS definition of high hazard.
- Whilst I acknowledge that the natural hazard chapter of the MDP will be reviewed as part of Stage 3 of the District Plan review, CRC's concern regarding the development in this part of Twizel stems from the fact that the zoning changes proposed by PC21 may provide for additional development in the interim between when the PC21 rules take legal

effect and when the review of the natural hazards chapter of the MDP occurs. I address this in further detail below.

Results of flood modelling

As highlighted within the expert evidence of Mr Oliver Hermans, the severity of flooding varies across the lots located between Glen Lyon Road and the Twizel River. Flood modelling shows some areas below the terrace to meet the CRPS definition of 'high hazard'. Further, Mr Hermans' evidence also highlights uncertainties within the model that mean some areas not shown to be high hazard, could actually be high hazard, as the model may be underestimating the severity of flooding in some instances.

Statutory framework surrounding flood hazard risk associated with the Twizel River

CRC's submission highlighted that the MDP definition of "High Flood Risk" is not completely consistent with the CRPS definition of High Hazard Area:

'The CRPS defines 'high hazard areas' in relation to inundation as 'flood hazard areas subject to inundation events where the water depth (metres) x velocity (metres per second) is greater than or equal to 1, or where depths are greater than 1 metre [emphasis added], in a 0.2% (Annual Exceedance Probability (AEP)) flood event'. The CRPS definition differs slightly to the ODP definition of 'high flood risk' which 'means areas where the product of water depth (metres) multiplied by velocity (metres per second) equals or exceeds 1 in areas subject to inundation during an event of 0.2% AEP'

- This means that there are areas within the Mackenzie District that may meet the definition of high hazard area under the CRPS, but not meet the definition of "high flood risk" under the MDP. This is because the CRPS includes the additional element of depths greater than one metre, so this captures areas where floodwaters may pond.
- Policy 11.3.1 of the CRPS provides strong direction on the avoidance of development within high hazard areas. Specifically, Policy 11.3.1 seeks the avoidance of new subdivision, use or development of land within

high hazard areas unless the subdivision, use or development is unlikely to:

- (a) result in loss of life or serious injuries in an event
- (b) suffer significant damage or loss in an event
- (c) require new or upgraded hazard mitigation works
- (d) exacerbate the effects of the natural hazard.
- Methods imposed on territorial authorities are also directive. Method 7 requires that territorial authorities **will** [emphasis added] set provisions within district plans to avoid any new subdivision, use and development that does not meet the applicable clauses (in the cases of PC21, clauses 1-4 as outlined above).
- The methods and policy guidance provided in Policy 5.3.2 of the CRPS also require that territorial authorities avoid subdivision, use and development within areas that meet the high hazard definition within Policy 11.3.1, particularly where subdivision, use and development is likely to increase the frequency and/or severity of hazards.
- For sites that are not located within areas subject to the High Hazard Area definition but that are still subject to flooding (specifically areas subject to inundation by a 0.5% AEP flood event), Policy 11.3.2 in the CRPS requires the risk to be mitigated, predominately through the use of raised floor levels.
- As discussed above, the MDP definition is not completely consistent with the CRPS definition of High Hazard Area and therefore cannot be relied upon in the absence of other provisions to ensure new, or existing development is appropriately assessed and located. This inconsistency means that a habitable dwelling could be erected within a high hazard area (as defined in the CRPS) as a permitted activity (subject to floor levels), under Rule 3.1.1.e.ii of Section 6 Residential Zone Rules of the MDP.

Response to the s42A recommendations

- The s42A report recommended the rejection of both points raised in CRC's submission in relation to natural hazards on the basis that:
 - (a) Amendments to the definition of High Flood Risk were outside the scope of PC21;

- (b) Most of the buildable area on Glen Lyon Road is located atop the terrace, or outside the flood hazard overlay.
- I accept that the amendments sought to the definition of High Flood Risk are outside the scope of PC21. However, the CRC submission requested an area specific provision in the event the definition was considered to be out of scope and therefore I consider there is still scope to consider an area specific provision (given the introduction of new zone chapters).
- The primary concern raised within the CRC submission on this matter is that PC21 enables increased development capacity in areas where flooding can be described as 'high hazard', over and above what is currently enabled in the Mackenzie Operative District Plan (**ODP**).
- The ODP zones these properties Residential 4, which allows for one residential unit and one minor unit per property to a total building coverage of 15% as a permitted activity. PC21 allows for a minimum site area of 2,000m2 per residential unit to a building coverage of 25% as a permitted activity. Accordingly, based on the lot sizes of these properties, they could be further developed to include multiple residential dwellings or subdivided two to three times with a residential unit placed on each.
- 71 Enabling increased development within high hazard areas is contrary to the direction in the CRPS, specifically Policy 11.3.1. Consequently, it is my view that until the inconsistency of the ODP flood hazard definition is addressed through the Mackenzie District Plan Review the proposed PC21 provisions do not give effect to the CRPS.
- The reasons provided in the s42A report that development of the properties between Glen Lyon Road and the Twizel River is appropriate were:
 - (a) most of the buildable area on Glen Lyon Road is located atop the terrace; and
 - (b) most of the buildable area is outside the flood hazard overlay; and
 - the majority of properties have already been developed for residential activity.
- 73 I disagree with these reasons because:

- (a) it is unclear which parameters have been used to determine 'buildable', and this statement is not definitive;
- (b) there is potential for these sites to be subdivided or re-developed in a way that could result in development proposed within areas subject to unacceptable flood risk;
- (c) the evidence of Mr Hermans demonstrates that these sites contain areas that meet the high hazard areas definition of the CRPS.
- PC21, there is the potential for increased development of the properties between Glen Lyon Road and the Twizel River. All current development is located atop the terrace, while land below the terrace remains void of residential units. Without completely redeveloping the sites, further subdivision or development could feasibly occur below the terrace. Through assessment of the properties on Canterbury Maps it is evident that access could be obtained via Lyford Lane for some properties, and there is likely to be land that could be developed below the terrace. It is also worth acknowledging the potential for economic drivers to increase development pressure on marginal land, such as below the terrace.
- The flood hazard rules applying to these properties are contained within the operative MDP Subdivision and Residential Rules chapters. The rules within the residential chapter rely on the high and low flood risk definitions to trigger an assessment of flood hazard risk (which, as noted above, may allow development in a high hazard area as defined in the CRPS where the additional depth criterion is met, that is not included in the MDP definition of high flood risk).
- The residential chapter of the ODP only refers to the flood hazard overlay where it relates to the Kimbell Hazard Area. The subdivision rules are only triggered where there is a subdivision application.

 Therefore, if development occurs in lieu of subdivision for the properties between Glen Lyon Road and the Twizel River, the flood hazard overlay would not be assessed under the current rule framework. Therefore, the s42A reasoning to rely on the flood hazard overlay to trigger assessment of flood hazard risk is deemed ineffective for any development occurring in lieu of subdivision.
- 77 Even where the flood hazard overlay did apply to these properties, the flood risk assessment process could not be solely relied upon to avoid

- development within high hazard areas as flood risk would be assessed against the ODP definitions of high flood risk and low flood risk.
- The CRC sought the inclusion of a standard to locate all buildings atop the terrace. It is my view that the insertion of a standard remains the most efficient and effective way to avoid new development in areas that could be subject to high flood hazard risk, including that which would be classified as high hazard under the CRPS.
- The inclusion of a standard to locate any new development atop the terrace could also be deleted from the provision framework once the flood hazard chapter provisions have been reviewed and have legal effect. A standard can be deleted without affecting the rest of the rule framework applying to these properties, or other areas of Twizel zoned LLRZ. This allows for a temporary measure to be put in place until the natural hazards chapter can resolve this issue.
- For the reasons outlined above, I recommend a standard is inserted into the LLRZ chapter to require any new development associated with the properties between Glen Lyon Road and the Twizel River to be located atop the terrace.
- As part of the insertion of the standard, a discretionary consent pathway has been recommended as an effective way to manage an activity that does not comply with the standard. In my opinion, a discretionary activity status is seen as appropriate based on the varying levels of flood risk identified below the terrace. It also aligns with the ODP discretionary consent pathway that is triggered where flood risk meets the definition of 'high flood risk'.

Advice note referring to the Flood Protection and Drainage Bylaw 2013

- The CRC submission sought insertion of an advice note to standards LRZ-S4.2 and MUZ-S4.1 on the basis that authorisation may be required under the Canterbury Flood Protection and River Drainage Bylaw 2013 for various activities occurring adjacent to small drains and watercourses. The s42A report recommends rejecting this relief.
- As stated in the Bylaw, it only "controls activities that may affect the integrity or effective operation and maintenance of the flood protection

and flood control works'3. This is achieved through requiring a bylaw authority (or authorisation) for any activity that cannot meet the provisions within the Bylaw. This allows the CRC Rivers Section to ensure that activities, land use and development occurring near to flood protection and flood control works does not result in their damage or misuse.

- The Bylaw places additional requirements on development, land use and activities managed under a district plan's urban zone chapters. Activities that are managed under both a District Plan's urban zone chapters and the Bylaw include:
 - (a) Planting, or growing vegetation;
 - (b) Constructing, or locating any structure;
 - (c) Dumping or depositing any thing.
- The s42A report suggested that reference to the Bylaw would be more appropriately located within the Hazards chapter. I disagree with this recommendation in part, as the focus of the Bylaw is not about protecting land use activities from flood hazards, but rather managing adverse effects of activities, land use and development on flood mitigation infrastructure and works.
- The National Planning Standards (2019) do require natural hazard provisions to be contained within the natural hazards chapter, but do not prescribe where provisions that relate to the protection of natural hazard infrastructure and assets go. It is my view that the chapter within which this type of activity is addressed, and by extension the advice note sought by CRC, would be up to the discretion of the MDC.
- The benefits of including an advice note within the setback standards of LRZ-S4.2 and MUZ-S4.1 is that it will be seen by plan-users applying the setback standards. This will result in improved public awareness of the Bylaw and highlight to district plan-users that in some cases Bylaw authority may be required from CRC (including for activities that would otherwise be permitted under the District Plan).
- I consider the addition of an advice note is appropriate as it sufficiently alerts plan users to the potential requirements of the Bylaw, without

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Flood Protection and Drainage Bylaw 2013, cl 3. Purpose.

adding any additional consenting requirements or restrictions under the MDP. It is simply a signal to plan users that an authorisation from the CRC may also be required.

In many cases, the district plan zone provisions would be the first regulations reviewed, specifically as the ODP encourages review of the zone chapters in the first instance⁴ when considering land use change or development. From a plan user perspective, it is less intuitive that the natural hazards chapter would also need to be reviewed, particularly as there are no obvious triggers or signals to refer to the natural hazards chapter, such as flood hazard map layers identifying the presence of flood protection and flood control works.

90 Policy 5.3.2 of the CRPS requires that territorial authorities avoid subdivision, use and development which is likely to increase the frequency and/or severity of hazards. Where land use or activities specified within the Bylaw occur without reference to the Bylaw, they have the potential to undermine the effectiveness of river engineering assets designed to mitigate the severity of natural hazards. Highlighting the requirements under the Bylaw within the District Plan will better achieve the outcomes sought under Policy 5.3.2.

Objective 11.2.4 and Policy 11.3.9 of the CRPS also seek the integrated management of natural hazards across agencies. Inserting an advice note as sought by CRC will help raise public awareness around activities and land uses that can undermine hazard mitigation measures in operation in the Mackenzie District. Additionally, an advice note would help progress the desired outcomes of the Mackenzie Basin Agency Alignment Programme through furthering alignment of regional and district planning frameworks.

Industrial Zone and Reverse Sensitivity

The intent of this part of CRC's submission was to protect the amenity of adjoining residential-zoned land from the adverse effects of activities in Twizel's GIZ.

Relevant statutory context

steps 1 and 2 within the Activity Status section of the Plan Change 20 Part 1 Chapters notification document. This provision has not been amended through the submissions,

further submissions or hearings process on Plan Change 20.

- The CRC submission provided relevant statutory context regarding the objectives and policies of the CARP within paragraphs 50 and 51 of the submission. The relevant context is expanded on within my evidence as it relates to the CRPS, and where required, the CARP.
- Ohapter 16 of the CRPS relates to the integrated management of air quality. The provisions of this chapter place requirements on CRC to set appropriate provisions to manage discharges to air, and consequently maintain or improve air quality.
- Objective 14.2.2 and Policy 14.3.5 specifically manage adverse effects emanating from discharges to air on wellbeing, flora and fauna and natural and physical resources, including amenity.
- Policy 14.3.5 of the CRPS provides specific direction on how to manage the relationship between activities involving a discharge to air, and sensitive land uses (in the case of PC21, neighbouring residential uses). Policy 14.3.5 requires the following:
 - (a) To avoid reverse sensitivity effects of new development on existing activities discharging to air, unless reverse sensitivity effects of the new development can be avoided or mitigated.
 - (b) Existing activities involving a discharge to air are to adopt the best practicable option to prevent or minimise any actual or likely adverse effect, particularly where reverse sensitivity is an issue;
 - (c) Locating new activities that include a discharge to air away from sensitive land uses and receiving environments, unless adverse effects can be avoided or mitigated.
- 97 For Canterbury, the majority of provisions relating to the integrated management of air lie within the CARP. The relevant objectives and policies were outlined within the CRC submission⁵, and are not repeated here.
- The rules within the CARP manage a variety of activities that can result in a discharge to air of dust or odour. For dust, these activities include unsealed surfaces, unconsolidated land, construction of buildings, handling and outdoor storage of bulk solid materials, abrasive blasting

Paragraph 50, Canterbury Regional Council submission on PC21 to the Mackenzie District Plan.

and activities associated with seeds and wood waste. Rule 7.63 of the CARP specifically requires consent for activities not specifically managed by other provisions in the plan. This provision is supported by a list of activities that are likely to require resource consent under this rule, such as manufacture (adhesives, resin, paper, paint) and metal melting (excluding welding and soldering). A number of these activities would include a discharge of odour to air.

Locating activities occurring within the Twizel GIZ away from residential uses

- The CRC requested a 50 metre (m) setback of buildings and structures, and industrial activities within the Twizel GIZ to residential areas to maintain residential amenity. The s42A report accepted the relief sought in part. I agree with the s42A report recommendations in part, subject to the following amendments.
- First to clarify, the s42A report at paragraph 336 outlined that 'Given the 20m setback applying to the LLRZ, I recommend that control is applied to buildings and structures within 30m of a residential zone boundary, rather than 50m'. The s42A report recommendation in paragraph 337 and the amendments made to GIZ-R1 in Appendix 2 to the s42A report both apply the 50m setback. Clarification is sought that the intention was to apply the 50m setback as requested in the CRC's submission and applied in Appendix 2. In my view, the preferred position remains the application of a 50m setback of buildings and structures, and industrial activities to residential areas.
- The CRC submission sought the addition of the 50m setback to two rules, being GIZ-R1 and GIZ-R2. The s42A report discussed the setback in relation to GIZ-R1 but has provided no discussion in relation to GIZ-R2. Consequently, the s42A report only amended GIZ-R1 and made no amendments to GIZ-R2.
- The issue with not amending GIZ-R2 in line with the CRC's submission is it creates a gap within the PC21 rule framework, and could potentially result in the undermining of residential amenity from industrial activities managed under GIZ-R2. As such, I disagree with the omission of discussion and amendment to GIZ-R2.
- The gap created within the GIZ provisions (as per the s42A report) can be delineated as follows:

- (a) GIZ-R1.1 applies a controlled activity status for any buildings or structures located within 50m of residential areas, which are then subject to matters of control and standards;
- (b) GIZ-R2.1 applies a restricted discretionary activity status to 'heavy industrial activities' (as defined within the PC21 definitions) no matter where they were located within the GIZ, which are then subject to restricted matters of discretion;
- (c) The remainder of activities captured under GIZ-R2, that are not classified as 'heavy industrial activities' can locate anywhere in the GIZ as a permitted activity without being subject to any standards or matters of discretion.
- As raised within the CRC's submission, while the definition of 'heavy industrial activity' captures numerous activities that would be incompatible with residential uses, the overall rule framework, as amended by the s42A report, does not provide enough certainty that all industrial activities incompatible with residential uses can be appropriately managed, particularly where located within 50m of a residential area. Paragraph 75 of this evidence identifies numerous industrial activities that require consent under the CARP due to their anticipated adverse effects on air quality that would be considered a permitted industrial activity under GIZ-R2.
- 105 I therefore recommend that GIZ-R2 is amended in line with the relief sought in the CRC submission, as it relates to the 50m setback, using the drafting within the s42A report for GIZ-R1.1.

Ensuring adverse effects of activities occurring in the Twizel GIZ are appropriately managed at the time of development through consent processes or standards

- The CRC requested a controlled activity status pathway within rules GIZ-R1 and GIZ-R2 within 50m of a boundary with a residential zone. This was proposed as a more effective means of managing any potential adverse effects of the activities on the amenity of neighbouring residential areas.
- The s42A amendments applied the controlled activity status pathway proposed by the CRC in relation to Rules GIZ-R1, but not GIZ-R2. This was likely a result of not applying the 50m setback to GIZ-R2.

- In my opinion, as currently drafted, GIZ-R2 lacks certainty that any potential and/or actual effects of industrial activities on residential amenity will be appropriately managed. A permitted activity status is appropriate where the type of activity to be managed, and its effects are relatively well known, and are known to be less than minor. It is therefore not appropriate to apply a permitted activity status to industrial activities managed through GIZ-R2 as the specific activities and their effects cannot be narrowly defined. A controlled activity status still allows for a similar level of development, while ensuring methods can be applied to maintain residential amenity. For these reasons, I disagree with the omission within the s42A report to apply the controlled activity pathway to GIZ-R2, and continue to recommend that this is included consistent with CRC's submission.
- The matters of control proposed by the CRC included effects on air quality, and by extension, amenity. The s42A report amended the matters of control to align them with the drafting style for PC21, and in doing so reduced the ambit of the matters of control in a way that excludes managing the effects of odour on amenity. There are numerous activities listed within Rule 7.63 of the CARP that can generate odour effects that would not be captured as a 'heavy industrial activity'. Rule 7.63 acknowledges that activities not listed can still have air quality effects. In the same way, GIZ-R2 would benefit from applying consent pathways that are not exclusive.
- 110 The matters of control proposed by the CRC included privacy and landscaping, and specifically the setback of buildings and structures for GIZ-R1. Policy 5.3.1 of the CRPS provides for growth while maintaining and enhancing amenity values and Policy 5.3.2 enables development while avoiding or mitigating reverse sensitivity effects and conflicts between incompatible activities. Amendments proposed through the s42A report removed privacy as a matter of control, and instead referred to 'building design and location'. Based on the CRPS policy guidance of Policy 5.3.1, Method 2, it is my view that, how these matters are described and implemented within PC21 is up to the discretion of MDC.
- 111 Where changes are discussed with the reporting officers to these provisions, I would like the opportunity to comment on these changes as they relate to the points sought in the CRC submission.

Conclusion

- The urban zone chapters in PC21 are critical to enabling urban growth and development in a way that benefits the environment, people and communities of the Mackenzie District.
- In my view, some additional minor, but important, amendments are required to the provisions recommended through the s42A report for PC21 to maintain amenity, protect people and property from natural hazard risk and prevent the degradation of water quality.
- 114 Specifically, the amendments I support are:
 - (a) Water Quality partly amend the LLRZ, Specific Control Area 1 and 2 density standards to require connection to a reticulated sewerage system; amend the LLRZ, LRZ and MUZ density and servicing standards to reduce duplication and require prior any necessary CRC discharge consents for on-site wastewater or stormwater to be obtained prior to building consent;
 - (b) Flood Hazard insertion of a new standard in the LLRZ chapter to locate any new development of the properties between Glen Lyon Road and the Twizel River atop the terrace;
 - (c) River engineering insertion of an advice note referring to the need to comply with the Flood Protection and Drainage Bylaw 2013;
 - (d) Air quality insertion of a 50m setback, and a controlled activity pathway for industrial activities occurring within the Twizel GIZ; and the inclusion of odour as a matter of control to rules GIZ-R1 and GIZ-R2.
- 115 I have suggested amendments to PC21 in line with the CRC's submission and in response to the s42A report. A complete set of recommended amendments is attached within **Appendix 1**.

There are consequential amendments that need to be made to related provisions to apply the relief sought in the CRC submission. Specific consequential amendments required are detailed within **Appendix 1**. There may be other consequential amendments that need to be applied to fully apply the amendments detailed within **Appendix 1**.

Dated this 3rd day of March 2023

Alanna Marise Hollier

APPENDIX 1 - RECOMMENDED AMENDMENTS TO PC21

All recommended amendments contained within this appendix are made to Appendix 2 to the s42a report for PC21, and shown by way of strikeout or underlining.

Water quality

1. Amend standard LLRZ-S1 as follows:

LLRZ-S1	Density	Activity Status where compliance not achieved:
Large Lot Residential Zone in Twizel and Fairlie	The minimum site area per residential unit is 2,000m² subject to the residential unit connecting to a reticulated sewerage system.	DIS
Specific Control Area 1	3. The minimum site area per residential is 4,000m² subject to the residential unit connecting to a reticulated sewerage system.	
Specific Control Area 2	4. The minimum site area per residential unit is 1ha subject to the residential unit connecting to a reticulated sewerage system.	

2. Amend standards LLRZ-S6, LRZ-S7, and MUZ-S8 as follows:

LLRZ-S6	Servicing	Activity Status where compliance not achieved:
Large Lot	1. All buildings requiring	DIS
Residential	wastewater disposal shall be	
Zone in Kimbell	provided with an on-site	
	wastewater treatment and	
	disposal system, authorised by	
	Environment Canterbury. Evidence shall be provided that any proposed on-site wastewater or stormwater disposal to ground is authorised by Canterbury Regional Council by way	

of a rule in a regional plan or a	
resource consent.	

LRZ-S7	Servicing	Activity Status where compliance not achieved:
Lo <u>w</u> ŧ Density	1. All buildings (requiring	DIS
Residential	wastewater disposal) shall be	
Zone in Kimbell	provided with an on-site	
and Albury	wastewater treatment and	
	disposal system, authorised by	
	Environment Canterbury. Evidence shall be provided that any proposed on-site wastewater or stormwater disposal to ground is authorised by Canterbury Regional Council by way of a rule in a regional plan or a resource consent.	

MUZ-S8	Servicing	Activity Status where compliance not achieved:
Mixed Use	1. All buildings (requiring	DIS
Zone in Kimbell	wastewater disposal) shall be	
and Albury	provided with an on-site	
	wastewater treatment and	
	disposal system, authorised by	
	Environment Canterbury. Evidence shall be provided that any proposed on-site wastewater or stormwater disposal to ground is authorised by Canterbury Regional Council by way of a rule in a regional plan or a resource consent.	

3. Amend standards LLRZ-S1.2, LRZ-S1.2 and MUZ-S1.1.c as follows:

LLRZ-S1	l — — — — — — — — — — — — — — — — — — —	Activity Status where compliance not achieved:
Large Lot Residential	2. The minimum site area per residential unit is 2,000m2-where	DIS
	wastewater discharge is authorised by Environment Canterbury.	

LRZ-S1	Density	Activity Status where compliance not achieved:
Large Lot	2. The minimum site area per	DIS
Residential	residential unit is 1,500m2-where	
Zone in Twizel and Fairlie	the wastewater discharge is	
	authorised by Environment	
	Canterbury.	

MUZ-S1.1c	Density	Activity Status where compliance not achieved:
Mixed Use Zon	The minimum site area per any	DIS
	residential unit is:	
	a. 400m2, where the residential unit is connected to a reticulated sewerage system; or	
	b. 1,500m2, where the residential unit is not connected to a	
	reticulated sewerage system.; and	
	c. authorisation of the wastewater discharge has been obtained	
	from Environment Canterbury.	

3. A suite of amendments are required to the LLRZ, LRZ and MUZ rules, and in some cases rules containing restricted matters of discretion to implement the servicing standards throughout these rule frameworks as outlined in my evidence, paragraph 34. Further amendments are required to a number of the LLRZ rules to implement the flood hazard standard as outlined in my evidence, paragraph 60.

For permitted activities, amend the following rules to refer to associated standard(s):

- Refer to standards LLRZ-S6 and LLRZ-S7 in Rules LLRZ-R1, LLRZ-R2 and LLRZ-R3
- Refer to standard LRZ-S7 in Rules LRZ-R1, LRZ-R2 and LRZ-R3
- Refer to standard MUZ-S8 in in Rules MUZ-R1, MUZ-R4 and MUZ-R8

For restricted matters of discretion (outlined in paragraph 36 of my evidence), amend to include:

Whether lot size allows for adequate access to any wastewater or stormwater system for any required maintenance, upgrading or repairs.

To the following rules:

- Insert matter of discretion to Rules LLRZ-R8 and LLRZ-R10
- Insert matter of discretion to Rules LRZ-R5 and LRZ-R8 to LRZ-R11
- Insert matter of discretion to Rules MUZ-R5 to MUZ-R7

4. Amend LLRZ-P5 as follows:

Manage development within the Large Lot Residential Zone to ensure:

- 1. built form is of a scale and design that is compatible with the character, amenity values and purpose of the zone;
- 2. larger lot sizes are retained in areas subject to servicing constraints in Specific Control Areas 1 and 2, until such time appropriate services are in place; and

3.in areas with no reticulated sewer or stormwater services, development does not constrain the ability to effectively manage wastewater and stormwater discharges on site; and

34.a predominance of open space over built form is maintained

5. Amend MUZ-P3 as follows:

Manage development within the Mixed Use Zone to ensure that it:

- 1. provides a high-quality pedestrian environment;
- 2. is well-integrated with roads and public areas and positively contributes to their vibrancy;
- 3. provides a good level of amenity for residents, workers and visitors; and
- 4. is compatible with its residential setting and maintains the anticipated amenity values of any adjoining residential zone; and
- <u>5. does not constrain the ability to effectively manage wastewater and stormwater discharges on site in areas with no reticulated sewer or stormwater services.</u>

6. Amend LRZ-P6 as follows:

Manage development within the Low Density Residential Zone to ensure:

- 1. built form is of a scale and design that is compatible with the character, amenity values and purpose of the zone;
- 2. larger lots sizes are retained in areas subject to servicing constraints in Specific Control Area 4, until such time appropriate services are in place; and
- 3. in areas with no reticulated sewer or stormwater services, development does not constrain the ability to effectively manage wastewater and stormwater discharges on site; and
- 3.4. building and structures located in Specific Control Area 5 do not dominate the identified ridgeline when viewed from a public place.
- 7. Amend the introduction section of the LLRZ, LRZ and MUZ by the inclusion of the following sentence:

The development potential of sites within Kimbell and Albury is limited by the possible need to obtain a discharge permit from Environment Canterbury for the discharge of wastewater and stormwater.

Flood Hazard

8. Insert new standard LLRZ-S7 as follows:

LLRZ-S7	Locating	outside	high	hazard	Activity	Status	where	compliance	not
	<u>areas</u>				achieve	<u>d:</u>			
Large Lot	-	ny habitable ructure sha			<u>DIS</u>				
Residential Zone –		top the terra		<u> </u>					
properties located									
between Glen Lyon Road and									
the Twizel River									

River Engineering

9. Insert the following advice note to LRZ-S4.2 and MUZ-S4.1:

Advice Note: The Canterbury Regional Council Flood Protection and Drainage Bylaw 2013 applies restrictions within 7.5 metres of small drains and watercourses identified within this bylaw to ensure flood protection and flood control works are not undermined, misused or damaged.

Air Quality

10. Amend GIZ-R1 as follows:

GIZ-R1	Buildings and structures			
General Industrial Zone	Activity Status: PER	Activity status when compliance with is not achieved with R1.1: CON		
	Lot Residential Zone in Twizel; and	Matters of control are limited to: a. The location and design of buildings with respect to residential zones. b. Hours of operation. c. Noise and vibration. d. Light spill. e. Amenity effects relating to dust and odour. f. The effectiveness of any landscaping		
		proposed in mitigating effects. Activity status when compliance with		

standard(s) is not achieved: Refer to
relevant standard(s).

11. Amend GIZ-R2 as follows:

GIZ-R2	Industrial Activities				
General Industrial Zone	Activity Status: PER	Activity status when compliance with is not achieved with R2.2: CON			
	Where: 1. The activity is not a heavy industrial activity-; and 2. The building or structure is not located within 50m of a Low Density Residential Zone or Large Lot Residential Zone in Twizel.	Matters of control are limited to: a. The location and design of buildings with respect to residential zones. b. Hours of operation. c. Noise and vibration. d. Light spill. e. Amenity effects relating to dust and odour. f. The effectiveness of any landscaping proposed in mitigating effects. Activity status when compliance with standard(s) is not achieved: Refer to relevant standard(s). Activity status when compliance is not achieved with R2.1: RDIS			
		Matters of discretion are restricted to: a. The location, nature and scale of the activity. b. The sensitivity of the surrounding environment. c. The effectiveness of mitigation measures proposed.			

12. Apply consequential amendments to GIZ-S3.1 as follows:

GIZ-S3	Setbacks	Activity Status where compliance is
		not achieved

General Industrial Zone

- 1. Any building or structure shall be RDIS set back a minimum of 7m from any boundary adjoining a residential, open space or recreation zone.
- 2. Any building or structure shall be set back a minimum of 7m from any boundary adjoining a residential zone not captured by GIZ-R1.1.
- 2.3. Any building or structure shall be set back a minimum of 3m from any boundary adjoining a rural zone.
- 3.4. Any building or structure shall be set back a minimum of:
 - a. 10m from the boundary of Ostler Road; or
 - b. 5m from any other road boundary.

Matters of discretion are restricted to:

- a. The location, design, scale and appearance of the building or structure.
- b. For road boundaries, adverse effects on the streetscape.
- c. For internal boundaries, the extent of adverse effects on privacy, outlook, shading, and other amenity values for the adjoining property.
- d. Where the building or structure is opposite any residential zone, the effects of a reduced setback on the amenity values and outlook on that zone.
- e. The adequacy of any mitigation measures.