

Before the Independent Hearing Panel

At Christchurch City Council

Under the Resource Management Act 1991 (**RMA** or **Act**)

In the matter of Proposed private plan change 23 (PPC23) to
the Christchurch District Plan (CDP)

And LMM Investments 2012

Applicant

Evidence of Anna Carter

Dated Tuesday, 12 May 2026

Introduction

Name, qualifications, and experience

1. My name is Anna Carter. I am a Principal Planner at Land Matters Limited, based on the Kāpiti Coast. Land Matters Ltd ('LML') is a multi-disciplinary consultancy specialising in planning, surveying, engineering, project management and property advisory services. I have been with Land Matters as their Principal Planner since 2022 and earlier from 2014 – 2021. Prior to that I held various positions including Resource Consents Manager for Porirua City Council; as planning practitioner in private consultancy; as a policy analyst at Local Government New Zealand and the Ministry for the Environment. I have also held planning policy roles at Kāpiti Coast District Council and briefly at Christchurch City Council.
2. I hold a Bachelor of Resource and Environmental Planning from Massey University, majoring in Ecology (1997). I have a postgraduate paper in dispute resolution.
3. I have 29 years of experience as a planning and resource management professional in New Zealand. I am a Full Member of the New Zealand Planning Institute, and I hold accreditation as a Hearing Commissioner.

Relevant experience and knowledge of the site and locality

4. I have worked in central and local government in my field, and for the last 27 years as a resource management consultant.
5. I have prepared and assessed resource consent applications for a wide range of projects including for large greenfield residential developments, commercial activities, and large-scale industrial development projects. I have been involved in plan changes and plan development in several regions of New Zealand. I have appeared before the Environment Court and the High Court on resource management matters. I have also taken part in Environment Court mediations.
6. I have been involved in the commissioning of both preliminary and detailed design for residential development projects which requires a good understanding of best practice urban design outcomes; minimum engineering design principles including the New Zealand Standard NZS4404:2010; water sensitive urban design; flood management modelling; geotechnical site investigations; freshwater management and terrestrial ecology; and landscape planning and assessment. I have commissioned and overseen erosion and sediment control planning; development of site-specific management and construction plans, and other certification required under NZS4404:2010.
7. My experience relevant to this proposal includes:
 - i. preparation of S32 Report for Kāpiti Coast District Council PC63 – Earthquake and Faulting
 - ii. preparation of private plan change applications to rezone greenfield sites on the Kāpiti Coast;
 - iii. expert planning evidence on Roads of National Significance (Transmission Gully and Ōtaki to North Levin); and
 - iv. Review and assessment of greenfield sites as part of the Hutt City Council's District Plan Review;

- v. Prepared submissions on Wellington City Council's Intensification Plan Instrument and Proposed District Plan (2022) for Kaingā Ora; and
 - vi. Prepared submissions on Kāpiti Coast District Council's Intensification Planning Instrument (PC2)
8. While I am based on the Kāpiti Coast in Wellington, I have visited Christchurch many times as well as lived and worked in Christchurch, including for Christchurch City Council. I have visited the site recently and I am familiar with the wider environment.

Role in Project

9. I assisted Kristen and Andrew Buxton in a pro-bono capacity in the preparation of their submission (#71).
10. The Ōuruhia Residents and Supporters Group (ORG), whom Kristen and Andrew Buxton are members, engaged me on the 28 April 2026 to review the submission of the group (#70) along with individual submissions of members of the group, and provide planning evidence in response to the recommendations set out in the Section 42A report (refer **Attachment 1** of my evidence for list of all submitters represented)
11. In the time available to me I have reviewed most of the documents published on Council's *lets talk* website including:
- Notification S32 document including Attachment K, Attachment N
 - Requests for further information #1 and #2 and applicant responses
 - Hearing documents of Council including the S42A report
 - Expert Evidence of Applicant including by Jonathn Cleese (planning), Fraser Colegrave (Economics), and Chris Jones (Urban Design), Dr Andrew Laughton Dark (hydrology), Chris Jones (market demand); and
 - Commissioner Minutes
12. I have also reviewed all relevant planning documents including the relevant National Planning Statements (NPS) and Standards, the Christchurch City Council Operative District Plan (ODP) and in particular the sections relating to the relative zoning, natural hazards, infrastructure and transport; the Environment Canterbury (ECAN) Regional Policy Statement (CRPS) and in particular Chapter 6; the Christchurch Spatial Plan; and documents associated with Council decision to withdraw their Intensification Planning Instrument including Housing and Business Capacity Assessment (October 2025); along with the Hearing Commissioner's recommendation on PC45 (on creating the SPRZ for Whisper Creek).
13. I have not been engaged in any expert conferencing, but I have been invited to informal discussions¹ with the S42A report author and the Applicant's planner on the proposed changes to the Operative District Plan (as set out in the Applicant's Attachment K).

¹ Informal discussions between the identified planners have been set aside for Monday 18 May 2026.

Expert Code of Conduct

14. Although this is not an Environment Court proceeding, I have read the Code of Conduct for expert witnesses issued as part of the Environment Court Practice Note 2023. I agree to comply with the Code of Conduct. My qualifications as an expert are set out above. Except where I state I rely on the evidence of another person, I confirm that the issues addressed in this statement of evidence are within my expertise. I am not aware of any material facts that have been omitted or might alter or detract from the opinions expressed in this statement of evidence.

Scope of Evidence

15. My evidence includes statements where I either agree or disagree with the planning evidence particularly as they relate to those matters set out in the Section 42A report at paragraphs 1.1.13 and 4.1.3.
16. Specifically, my evidence covers whether the rezoning of the site is more effective and efficient than the operative SPRZ provisions taking into account the following matters:
- i. Whether PPC23 will achieve the objectives and policies of the relevant National Policy Statements;
 - ii. If it will achieve the purpose and principles of Part 2 of the Act; ;
 - iii. Deliver a well-integrated urban environment resilient to natural hazards;
 - iv. Achieve the outcomes in the CRPS and the objectives and policies in the relevant chapters of the CDP;
 - v. Whether all potential adverse environmental effects have been sufficiently addressed; and
 - vi. Having considered all potential costs and benefits, is PPC23 more effective and efficient than the operative SPRZ and RuUFZ provisions
17. My evidence will not address specific areas of expertise, outside of transportation for which the Residents Group has engaged an expert, except where these intersect with planning outcomes at a high level.
18. The matters I consider have been raised in the submissions by those submitters this planning evidence is representing. The list of submitters is included in **Attachment 1** of my evidence.

Executive Summary

19. The central planning question in this proceeding is whether PPC23 is needed to support a well-functioning urban environment, and whether the benefits of enabling approximately 800 or more dwellings on the Whisper Creek site outweigh the planning, environmental, and infrastructure costs of doing so. My evidence addresses whether the rezoning of the site from the Special Purpose Golf Resort Zone (SPRZ) and Rural Urban Fringe Zone (RuUFZ) to the Residential New Neighbourhood Zone (RNN) and RuUFZ, is more effective and efficient than the operative zoning, having regard to the relevant National Policy Statements, the Canterbury Regional Policy Statement (CRPS), the Christchurch District Plan (CDP), and Part 2 of the Resource Management Act 1991.
20. The site is located in the north-east quadrant of Greater Christchurch in Ōuruhia — a kainga mahinga kai area of significant cultural and ecological value. It is geographically isolated from existing urban centres, sits outside the urban area identified in the CRPS Chapter 6 Map A, and is not identified as a greenfield priority area. The site is subject to multiple natural hazard constraints including flooding, high groundwater, liquefaction risk, and tsunami inundation. These constraints are material to whether the site can support the scale of development proposed.
21. PPC23 proposes to rezone the upper terrace of the site to RNN, enabling a minimum of 800 dwellings at a density of 15 households per hectare, with a potential yield of over 1,000 dwellings if qualifying matter exemptions are removed in the future. This represents a significant departure from the current SPRZ, which was specifically designed to enable a golf resort with limited residential development in a rural setting. The proposed low-density, stand-alone housing typology is inconsistent with the medium-density outcomes anticipated for Tier 1 councils under the NPS-UD, particularly given the site's distance from rapid transit, employment centres, and community services.
22. Having considered the relevant National Policy Statements, I do not consider the proposed development represents a well-functioning urban environment as required by the NPS-UD. The site is not well-served by existing or planned public transport, is not within or adjacent to a centre zone, and does not meet the locational criteria in Objective 3 or Policy 3 of the NPS-UD. Christchurch City Council has recently confirmed to the Minister that it has sufficient plan-enabled housing capacity to meet 30 years of high-growth demand through existing residential zones and identified greenfield sites. This site is not required to meet that obligation.
23. The policy framework of the CRPS and CDP does not support the rezoning of this site for large-scale residential development. The site is not identified as a greenfield priority area in CRPS Chapter 6 Map A, and the CDP's strategic objectives require urban activities to be located within the existing urban area or on identified greenfield land. The proposed development would also result in the loss of LUC 2 highly productive soils across the lower terrace, and the application has not adequately addressed the obligations under Te Mana o te Wai or the requirements of the NPS on Freshwater Management in relation to the Pūharakekenui Awa/Styx River.
24. There are significant unresolved adverse environmental effects. The applicant has not provided a sufficient flood model to address downstream effects from the proposed

development, nor has a system-level wastewater assessment been undertaken to establish network performance under current and future environmental conditions. The transport expert for the submitters, Mr Michael Grant Smith, concludes that without a vehicular connection to Lower Styx Road, the effects on the existing roading network would result in a significantly lower level of service and increased road safety risks. On that basis alone, he recommends PPC23 be declined in its current form.

25. The costs of PPC23 outweigh its benefits. The economic evidence does not adequately account for the value of the land under its current rural zoning, the loss of productive rural land, or the long-term infrastructure costs to Council of extending transport and three waters networks to this location. The proposed neighbourhood commercial centre is unlikely to serve the wider Spencerville community given its location within the development and its accessibility only from internal roads. The applicant's reliance on future engineering design and later consenting processes to resolve outstanding infrastructure and natural hazard matters is not an adequate basis for a rezoning decision of this scale and significance.
26. Accordingly, in my opinion PPC23 should be declined on planning grounds. The proposed development does not achieve the purpose and principles of Part 2 of the Act, does not give effect to the relevant National Policy Statements or the CRPS, and does not represent a well-functioning urban environment. The benefits of enabling additional housing supply in this location do not outweigh the costs, having regard to the unresolved natural hazard risks, infrastructure constraints, transport effects, freshwater management obligations, and the cultural and ecological values of the Ōuruhia area.

About the Subject Site and the Proposal

27. The proposed Private Plan Change seeks to enable residential development at 144, 156 and 176 Turners Road and 174, 220 and 240 Spencerville Road.
28. The site is located in the north-east quadrant of Greater Christchurch in Ōhuria which is described as a kainga mahinga kai (food gathering place) located near the Waimakariri River². The site is located to the south of the Waimakariri River and its inlet Brooklands Lagoon. The Pūharakekenui Awa or Styx River adjoins the site and flows north to discharge into Brooklands Lagoon before it discharges into the Waimakarere River and east to Pegasus Bay. Food gathered in this area included tuna (eel) paraki (smelt) whaharoa (horse mussel), inanga (whitebait), and mata (juvenile whitebait). The full length of this Awa is identified as a site of ecological significance in the ODP.
29. The Council's coastal hazard assessment identifies flooding either side of the Pūharakekenui Awa with depths up to or greater than 100cm and groundwater in these areas up to or above the ground surface³. The District Plan maps also show the lower terrace within the site as subject to flood management area. The area of land between the upper terrace and Pūharakekenui Awa is identified as highly productive land (LUC 2) and follows the western flood plain of this river system. Either side of the LUC 2 is LUC 6 soils.
30. The upper terrace of the site is approximately 3km inland from the shoreline and sits between 1m to 5m above sea level. The site is located within the groundwater zone of

² Canterbury Maps viewer – Ka Huru Manu – Ngā Ingoa. Retrieved from <https://mapviewer.canterburymaps.govt.nz/>

³ CCC Coastal hazards online portal. Retrieved from <https://gis.ccc.govt.nz/hazard-viewer/ground-water>

Christchurch- West Melton. Groundwater in this area supply potable water to Kainga and Spencerville via the Brooklands/Kainga Aquifer 2 – a Linwood gravel acquifer which is a semi-confined aquifer⁴. Water from this supply is treated in a separate treatment plant to the rest of Christchurch City Council’s water supply and according to decision in 2023 is required to be treated with disinfectant.

31. PPC23 seeks to rezone the operative Special Purpose Golf Resort Zone (SPRZ) and Rural Urban Fringe Zone (RuUFZ) upper terrace sites to Residential New Neighbourhood Zone (RNN); and to rezone lower terrace areas subject to the Flood Management Area and the High Flood Management Area, from Special Purpose Golf Resort Zone to Rural Urban Fringe Zone.
32. It is anticipated that 800 or more households and a neighbourhood commercial centre could be developed in accordance with an Outline Development Plan (ODP) and associated provisions. If the rezoning is approved, I understand the scope of the private plan change would result in a significant urban community whose access would be via Turner and Spencerville Roads. I set out my understanding of the proposed residential development and associated infrastructure works provided in the ODP in paragraphs 41 and 42 of my evidence below.
33. The proposal will retain the existing Open Space Waterway and Margins Zone along the Styx River. A new road connection onto Lower Styx Road is not proposed under PPC23.
34. The proposed rezoning will be a significant departure from the currently allowable residential development of up to 150 residential dwellings; and use of land for a golf resort and golf course provided under the Special Purpose Golf Zone of the ODP. The objective for Whisper Creek describes that development as follows:

“13.9.2.1 Objective – Golf resort development: (a) ... to provide golfing and associated facilities (including resort facilities) of international standard, bringing economic and social benefits to the City and region, and to provide other recreational opportunities, and limited residential development, within extensive open space and lake or riparian settings, with no significant adverse effects on the natural or adjoining rural environments...”
35. The proposed intensity of development within the four parcels zoned Rural Urban Fringe zoned parcels of land, also represents a significant land use change from the existing rural lifestyle arrangement to urban. These four parcels of land total 19 hectares (or 190,000m²) were never included in the golf resort development zone. Under the Outline Development Plan for PPC23, and assuming an average lot sizes of 660m², this rural zoned land could end up accommodating some 200 or more new dwellings, roading and associated infrastructure fronting Turners and Spencerville Roads.
36. It has been difficult to determine the actual extent of the proposed new zoning. There seems to be some discrepancy in the actual location of the RNN zone boundary as it relates to the lower terrace, as the Applicant’s planning evidence refers to the RNN zoning as,

⁴ Exert from Taumata Arowai Report Exemption Application by CCC (1 Nov 2023) on this aquifer notes, “The Exemption Team understands that there are there are two zones for Aquifer 2 which impacts the aquifer’s vulnerability to surface water influences. The western zone is largely unconfined and prone to surface effects and the eastern zone is semi-confined and less prone to surface effects. Both the Brooklands and Kainga bores appear to be in the eastern zone of Aquifer 2.”

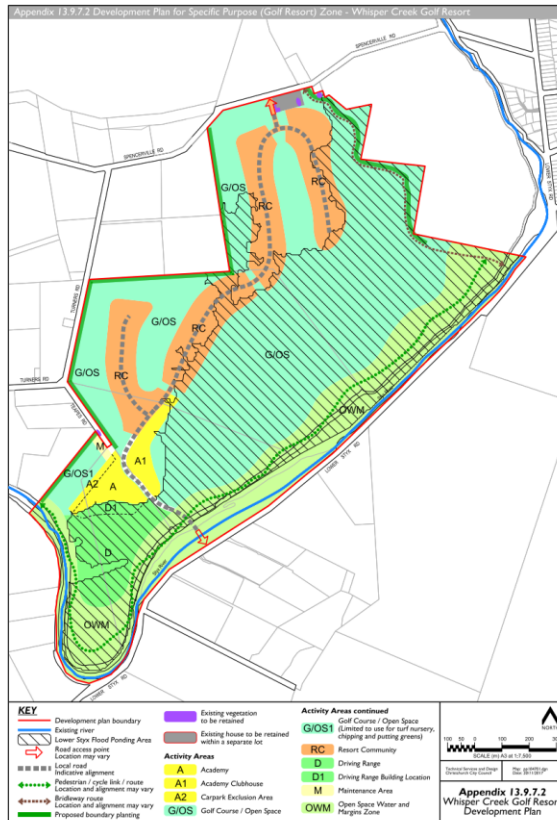
“applied across the upper terrace and adjacent stormwater basins.” While the S32 report stated that, *“it proposed to rezone all of the existing SP Golf Zone and the RUFZ portions of the site to a RNN Zone, with a portion of the lower terrace to be rezoned to RUFZ.”* The Applicant’s planning evidence later describes the plan change as seeking, *“to replace the current Golf Resort Zone with a mix of Residential New Neighbourhood (RNN) zoning for the “upper terrace” ... and a RUF zoning for the lower terrace*⁵. With the exception of one stormwater basin, the ODP shows all potential stormwater basins in the lower terrace. I note the S.32 report excludes urban development from the stormwater basin areas. The south and south-eastern boundary of the RNN zoning is not clear in the ODP either.

37. The Application refers to the “target yield” of the proposed change as aligning with a *“minimum of 15 households per hectare [as] directed in the CRPS”* but with an overall yield of “approximately 800 units.” In the Applicant’s Section 32 report and their planning evidence claim this density is consistent with other greenfield areas identified in Chapter 6 of the Canterbury Regional Policy Statement (CRPS). The planning evidence says the proposed density of the RNN zone is aligned with what is in the CDP for greenfield sites. For some reason the planning evidence also suggests it is aligned with the Ministry for the Environment’s Urban Design Protocol (a non-statutory document produced in 2005 to support best practice subdivision design).
38. I have been unable to find a description of the physical area (in square metres or hectares) for the extent of the RNN zoned land, beyond what is shown in the Outline Development Plan (ODP). I have reviewed the differences between two Outline Developments Plans – one for under existing zoning (SPRZ – Whisper Creek), and the other proposed (i.e. PPC23). According to the S32 report and subsequent planning evidence, the south-eastern and eastern boundary of the proposed RNN zone (refer **figure 1** on the following page) will include all area shown in orange (for residential development) and teal (for stormwater). The area in dark green is proposed to be Rural Urban Fringe Zoning; and the lighter green to be Open Space and Margin Zone⁷.

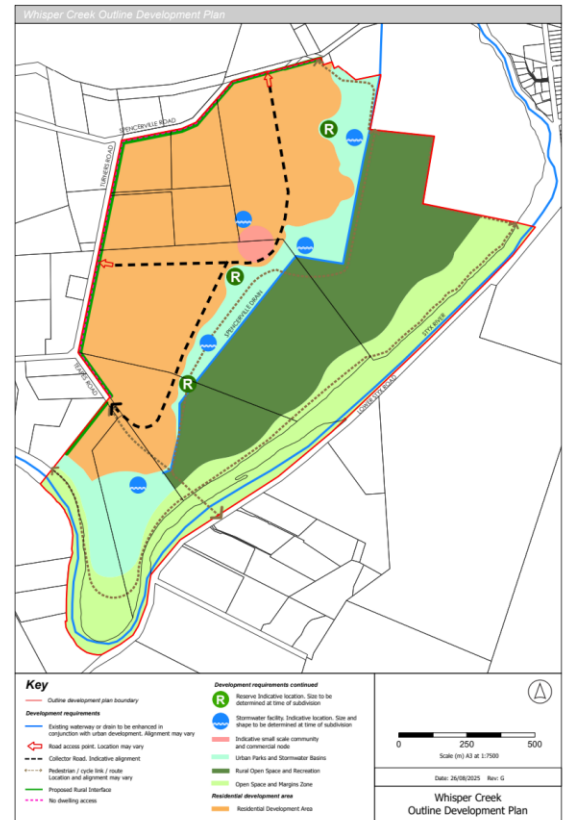
⁵ S32 Report. Section 3.1, page 9

⁶ Evidence, Jonathan Cleese. Paragraph 34, Pg 8.

⁷ The Open Space and Margin zone is the only area identified by its zone in the ODP



A. EXISTING OUTLINE DEVELOPMENT PLAN (NTS)



B. PROPOSED OUTLINE DEVELOPMENT PLAN (NTS)

Figure 1: Left Image: Whisper Creek Golf Resort Development Plan showing areas of Golf Course, Open Space Water and Marin Zone, indicative local roading connections; and future subdivision (identified as RC - Resort Community) versus proposed zoning on right. Source: Notification documents

39. The proposed density of the RNN Zone, at 15 households per hectare, represents an average lot size of 660m². By measuring the area of the upper terrace using eastern/south-eastern boundary of the teal area as shown on the ODP, I have calculated the area likely to be rezoned RNN as being approximately 103 hectares in area. Allowing for 70% of this area being developed for dwellings (30% being the typical amount to allow for infrastructure and roading etc), and providing for 15 households per hectare, this zoning would potentially allow for up to 1,081 dwellings or higher (based on the application of the minimum net site areas as per Table 8 in Chapter 8 of the CDP), if a cap on overall yield is not imposed.



Figure 2: Estimated area of RNN proposed under PPC23.

Source: Author measurement using GRIP software

40. Following the upper/lower terrace contour as the south-eastern/southern boundary of the orange area shown on the ODP, I have calculated the area of residential development that the applicant indicates will be predominantly residential development, as covering an area of approximately 77 hectares, as shown in Figure 3 below. Applying the same 70% rule as above, this area (approximately 54 hectares of developable land) would allow for 808 dwellings based on the 15 hh/ha yield. This overall site yield aligns with the Applicant's statement that the proposal will provide for 800 dwellings. This could increase if a cap on overall yield is not imposed (based on the application of the minimum net site areas as per Table 8 in Chapter 8 of the CDP).

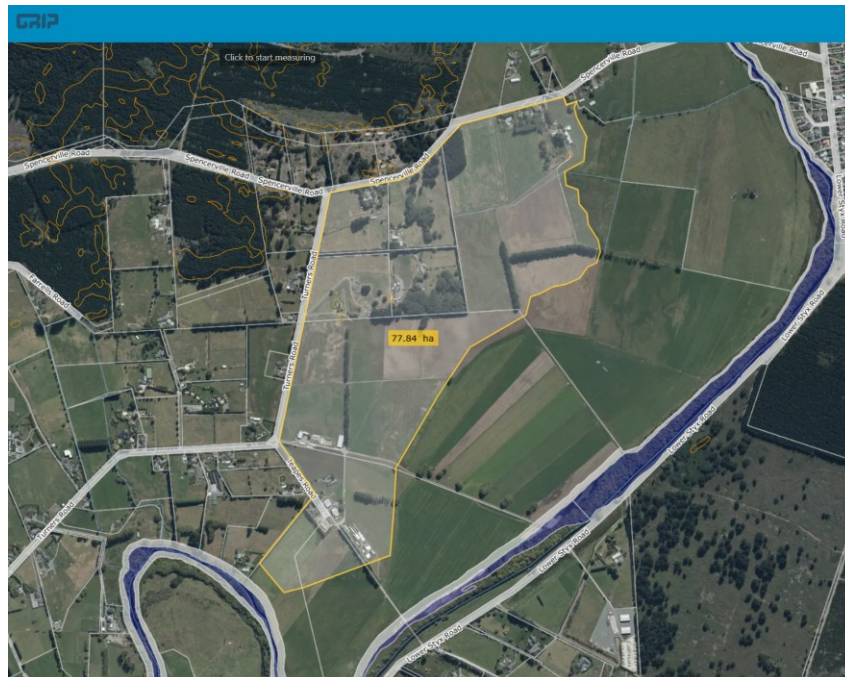


Figure 3: Extent of proposed RNN zoning to be utilised for residential development as per the proposed Outline Plan.

Source: Author using GRIP mapping following the RL 1m contour.

41. The applicant in their response to RFI requests, argued that while the site meets the definition of urban as provided for in the National Policy Statement for Urban Development 2020 updated May 2022 (NPS-UD), the resulting MDRS provisions do not apply due to qualifying matters affecting all areas of the proposed residential zoning on the ODP supporting a lower density of 15 households per hectare. The applicant submitted an updated amendment to the proposed planning maps to show additions to the 'Qualifying Matters' layer for the site to add 'Wastewater Constraint Area and High Flood Hazard Management Area Qualifying Matters to the proposed Residential New Neighbourhood Zone area'. The image from Attachment K is as shown below:

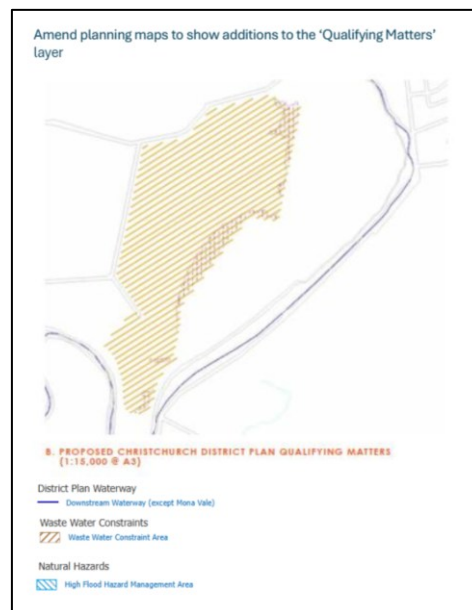


Figure 4: Proposed extent of additions to 'Qualifying Matters' layer in District Plan.

Source: Applicant documents - Attachment K

42. It appears the natural hazards qualifying matter (to be shown in blue hatching) sits underneath the beige hatching and also following the south-eastern/south boundary of the area shown in teal on the ODP. However, the proposed extent of the qualifying matters as they relate to the various proposed zoning is not sufficiently clear as to fully understand the implications of it. It is not clear how these qualifying matter areas align with Council's own flood hazard areas shown in the CDP.
43. If as the applicant suggests, the wastewater system is upgraded and no longer considered a constraint, there is a possibility that the District Plan may be amended in the future to remove this as a qualifying matter. Should that occur, there may be no restrictions on future medium density development (i.e. through application of the MDRS) within the RNN zoning of the site (where it sits outside of the Flood Management Area) given the status of Christchurch City Council as a tier 1 Council under the NPS-UD. It does not appear that this has been fully considered in the application documents.

Proposed Rezoning (PPC 23) – Residential New Neighbourhood Zone

44. Attachment K of the Applicant's documents has set out the proposed changes to the District Plan further to the RFI requests, and will provide for activities in accordance with the Outline Development Plan (ODP) and includes the following development requirements or for

exercising control over matters in 8.7.1 – 8.7.4 and under Chapter 8.8 of the CDP (subdivision):

45. Subdivision — as a controlled activity where it is in accordance with the ODP but where the total yield will not exceed 800 households unless it can be demonstrated that there is sufficient available volume of potable water and capacity of the local pressure wastewater network; and:

- Subdivision shall achieve a minimum net density within the residential development area of 15 households per hectare (average across the entire RNN Zone being 660m²).
- Minimum net site area as per Table 8 in Chapter 8 of the CDP including that corner allotments have a minimum area of 400m² and all other allotments are a minimum of 300m² except that 20% of allotments in the subdivision may be between 180m² – 299m²; except where RNN abuts or are opposite properties in the Rural Urban Fringe Zone and the Rural Waimakariri Zone, 60% of all lots with direct road frontage shall be a minimum of 1000m².
- An area of the site (as per **Fig. 4** in my evidence) are proposed to be subject to qualifying matters relating to wastewater constraints and natural hazards removing the requirement to apply the medium density residential standards (MDRS) to the RNN zone area under Section 6.1A.1 of the CDP.
- At least 60% of lots with direct frontage to Turners Road and Spencerville Road to be a minimum of 1,000m²
- Access from lots fronting Teapes Road, Turners Road and Spencerville Road to be via new internal roads, until such time as the rural land opposite the site is rezoned for urban activities
- Allows for a neighbourhood centre to be no larger than 3,000m² GFA but if none are developed within the first 10 years that the site can be utilised for residential development
- Three neighbourhood parks approximately 3,000m² within 500m of all residential units. Neighbourhood parks can be co-located with stormwater basins.
- Upgrades required to Turners Road and Marshlands Road intersection to provide a left turn lane from Turners Road prior to the issue of 224(c) certificates for when more than 700 residential lots are created.
- Groundwater abstraction and water treatment station to provide potable water and water for fire-fighting purposes
- Wastewater will be via a low pressure sewer network to an upgraded gravity network
- The application of the 0.5% AEP flood level for minimum land levels. Include a 1.2 SLR (2.88 NZVD) plus any additional factor of VLM; and finished floor levels of any new dwellings shall be 400mm of vertical freeboard

(b) **Subdivision – restricted discretionary** where:

- Development that is not consistent with the Outline Development Plan
- Subdivision within a flood management area (i.e. subdivision located in the teal area on the ODP)
- Subdivision that doesn't meet the minimum site area

(c) **Land Use** — residential development as a permitted activity:

- Any activity must be in accordance with the development requirements in the Outline Development Plan including front yards for lots fronting Teapes Road, Turners Road and Spencerville Road to be 20m for lots larger than 1,000m² and 10m for other lots

(c) **Land Use**— residential development as a **restricted discretionary activity**:

- Activities not in accordance with the ODP including new dwellings where a local pressure sewer network has been constructed in accordance with the ODP

(e) **Neighbourhood Commercial Centre**— **permitted activity**

- No larger than 3,000m²
- Land to be utilised for residential development if no neighbourhood centre is developed within 10 years

Proposed Rezoning (PPC23) – Rural Urban Fringe Zone (located in the lower terrace below RL 1m shown in dark green on the ODP)

46. Attachment K has set out the proposed changes to the District Plan and will provide for the activities in accordance with the Outline Development Plan (ODP) and includes the following development requirements:

- Subdivision** — as a **controlled activity** where it is in accordance with the ODP including:
 - Minimum net site areas of 4 hectares
 - To be utilised for open space areas with pedestrian and cycle links, parks, ecological restoration, stormwater management and farming
 - Cycle and pedestrian pathway to connect via a bridge to Lower Styx Road
 - Flood volume of the High Hazard Management Areas not to be reduced
- Subdivision** — as a **Restricted discretionary activity** where subdivision is within a High Flood Hazard Management Area including roads, and land to vest to Council

(b) **Land use** — as a **permitted activity** where it is in accordance with the permitted activity standards for the RuUFZ, and subject to rules in Natural Hazard Chapter 5 of the CDP including providing for ‘activities in flood management areas (below RL 1m)’ and ‘activities in the High Flood Hazard Management Area’:

- Farming and farm buildings subject to recommended building levels
- Farming Activities including intensive farming activities
- Rural produce retail and manufacturing activities
- Rural tourism activities
- Hosted and unhosted visitor accommodation
- Rural tourism activities

47. The S.42A report Attachment B contains marked up suggestions to these provisions and the applicant has subsequently responded in their evidence. The tracked changes document is provided in **Attachment 3** of my evidence. It is my opinion that the proposed to adopt the ODP for this site should not be approved. However, should the Hearing Commissioner commend PPC23 for inclusion in the CDP, I have recommended further changes to these provisions where these changes have also been sought by submitters represented by my planning evidence.

KEY TOPICS FOR REVIEW AND ASSESSMENT

Objectives and policies of the relevant National Policy Statements – Well-Functioning Urban Environment

48. Section 75(3) of the Act requires territorial authorities when changing their District Plans to give effect to National Policy Statements and National Environmental Standards. The NPS-UD 2020 updated May 2022 (NPS-UD) applies to all tier 1, 2 and 3 local authorities including Christchurch City Council, with an overall objective that, *“New Zealand has well-functioning urban environments that enable all people and communities to provide for their social, economic, and cultural wellbeing, and for their health and safety, now and into the future⁸.”*
49. The NPS-UD defines an urban environment as meaning any area of land (regardless of size, and irrespective of local authority or statistical boundaries) that is or is intended to be, predominantly urban in character; and is intended to be part of a housing and labour market of at least 10,000 people.
50. The proponent of the plan change (PPC23 or the Application) submits that the site is more urban than rural in character and function because it is located within Greater Christchurch geographic area and forms part of the related housing and employment markets. It notes this despite it not being identified in the CRPS Map A as a greenfield site, or part of the urban environment as shown on Map A (refer to the legend on Map A – see **Attachment 2**).
51. PPC23 also considers the activities provided for in the Special Purpose Residential Zone (SPRZ) are an urban activity for the purpose of aligning with the anticipated urban form within the CRPS Chapter 6. This premise is referencing the definition of urban activities in the CRPS and on the basis that the SPRZ enables residential activities to be established at densities greater than 1 household per 4 hectares and includes recreational facilities that service the urban populace.
52. The wording of the definition in the CRPS references urban activities which are of a size, function, intensity of character that are typical of those in an urban area and then goes on to list four examples as follows:
- iii. Residential units (except rural residential) at a density of more than 1 household per 4 hectares of site area;
 - iv. Business activities;

⁸ NPS-UD – Objective 1

- v. Sports fields, recreational facilities that service an urban population (but excluding activities that require a rural location); and
 - vi. Any other landuse that is to be located within the existing urban area or new greenfield priority area or future development area⁹
53. The Applicant acknowledges that the Rural Urban Fringe Zone (RuUFZ) in the context of the CRPS Chapter 6 or the CDP is not urban and instead relies on Policy 8 of the NPS-UD for determining the appropriateness of the rezoning. That is, greenfield growth that is *unplanned* and *out of sequence* development in the context of the NPS-UD, CRPS Chapter 6 Map A (greenfield priority areas), and the CDP.
54. The Section 42A report¹⁰ accepts that the site, when considered in the context of what the SPRZ for Whisper Creek allows for, forms an urban environment as provided for in the NPS-UD.
55. However, in the deliberations of the Hearing Commissioner on Plan Change 45, being the planning mechanism that created the current zoning, it acknowledged that *“the land the subject of this change lies outside the ‘urban area’ as identified in [the Greater Christchurch Urban Development Strategy] document¹¹.”* In that decision¹² the Commissioner writes, *“since this section was written, and on 19 December 2009, the Canterbury Regional Council has publicly notified its decision on submission to Proposed Change 1. In relation to the submission by the present Applicant (and notwithstanding the tenor of the s42A report) the decision is not to include the proposed are of built development within the ‘urban limits’ ... My understanding is that this decision has been appealed...”*. Plan Change 1 to the CRPS, Chapter 6 (Recover and Rebuilding of Greater Christchurch) was publicly notified on 16 January 2021 and became operative on 28 July 2021 through the streamlined planning process and produced Map A (refer maps in **Attachment 2** of my evidence). Map A does not include the subject site either as a greenfield site or as being within the urban area.
56. At the time of considering PC45, the Hearing Commissioner deflected the question of whether the site was inside or outside the urban area; or whether it would meet the definition of an urban activity; and rather sought to focus on whether the proposal (of the golf course) would better enable people and their communities to provide for their wellbeing; and in doing so would the adverse effects on the environment be appropriately avoided, remedied or mitigated¹³.
57. PC45’s Hearing Commissioner suggested that SPRZ created a land use that combined aspects of both rural and urban functionality¹⁴ and he accepted the statement of the applicant at the time that *“golf courses – especially intended as championship facilities – are not easily located within identified urban areas.”* He goes on to state that, *“I am of the view that Proposed Change 45 does not offend against Objective 6.3 [CPRS] and its related Policies – this on the basis that the activities that it enables are not “urban development” in those words are used in that Objective.”* It appears from reading the recommendations of the

⁹ CRPS – refer Map A

¹⁰ S42A – paras 3.1.7, 3.1.8, 5.3.7, 5.3.8 and 5.3.9

¹¹ Plan Change 45 Christchurch Golf Resort – Recommendation of commissioner Millgan. Pg 6

¹² PC 45. Footnote 5

¹³ PC45, Hearing Commissioner recommendations. Pg 9.

¹⁴ PC45. Pg 17.

Hearing Commissioner for PC45, that SPRZ was provided for within this site, partly because it required large areas of open space found in the rural zone. Along with the economic benefits the proposed golf course would bring domestically, the suitability of the location appears to be the predominant reason why the S32 assessment of the SPRZ was considered an appropriate zoning for the site.

58. Activities associated with a special purpose zone can be found within an urban environment for the purpose of providing for a community's well-being (e.g. schools and hospitals) but may not always fit within a definition of an urban activity (e.g. defence force activities or golf courses). Within the Whisper Creek SPRZ, the 150 residential units would be considered an urban activity, and this was the point of contention raised by submitters on PC45 – that they considered the proposed golf development 'urban.' However, it is reasonable to consider that the activities associated with the golf course being the resort accommodation (provided within an apartment complex), the conference facilities, retail areas and sports complex sit outside the definition of 'urban' as provided for under the CRPS. These activities required land of such a size that required a rural area to accommodate them. The special zoning was not intended to act as a quasi 'village' or 'settlement' zoning.
59. Underlying the SPR zone for Whisper Creek, is the option for the landowners to undertake activities as provided for in the RuUFZ as a permitted activity¹⁵. This reinforces the notion that the special zoning of the site enabled the golfing resort but if that was no longer appropriate, the underlying rural zoning and land uses would have effect.
60. I do not agree with the statement made in the Applicant's planning evidence that, "*the site's location in a context of a large urban area ringed by smaller villages ... is consistent with the established urban form and settlement pattern of Greater Christchurch*"¹⁶. This statement implies that the current location forms part of an established urban area. The site is not part of an established urban area. The closest town centre is Belfast 4.7km to the west and the nearest neighbourhood centre is across Pūharakekenui Awa/Styx River to the south-east (where no road access is proposed under PPC23). Within the site, there are very few existing dwellings. The site, if developed under the SPRZ would also look very different to any of these smaller villages and outlying suburbs. It would be more akin to a gated community or retirement community with access into it restricted through ownership or membership. I concur with the S42A report¹⁷ that the site is not 'contiguous with the nearest urban area' and agree that it is geographically isolated.
61. The constraints identified in the Greater Christchurch Spatial Strategy for this site (refer **Attachment 2** for these maps), is the likely reason greenfield land had not been identified as appropriate in these areas. The exception is a small area set aside for Māori land development further north of Spencerville.
62. The site falls within an area that is in close proximity to a large wāhi tapu area to the south (Map 7); partly within a tsunami inundation zone and liquefaction area (Map 8); well outside any rapid mass transit corridors and/or core public transport routes (Maps 9 & 15); partially

¹⁵ Rule 19.9.5.1.1 – Permitted activities – Whisper Creek Golf Resort: Any activity permitted in the Rural Urban Fringe Zone under Rule [17.5.1.1](#) P1- P16, or P18.

¹⁶ Applicant's Planning Evidence. Para 13.

¹⁷ S42A. Paras 5.3.10, 5.3.11

within LUC2 soils (Map 12); a significant distance to key employment areas (Map 13); and isolated from existing urban centres where growth is promoted (Map 14).

63. However, for the purpose of considering the NPS-UD, I concur that the site is within the urban environment of the Greater Christchurch Area and that the relevant provisions of the NPS-UD therefore apply to this application.
64. The S.42A report¹⁸ highlighted the lack of evaluation on housing and business sufficiency, in the context of whether the rezoning of the site represents a 'well-functioning urban environment' under the NPS-UD. The planning evidence states that PPC23 will deliver the equivalent of 10% of greenfield demand over the medium term, but only in so much as it will enable 'new stand-alone housing.' It also highlighted concerns around weighting given to the economic benefits with insufficient consideration given to the removal of rural land from production, or accommodating residential development enabled by PPC23 elsewhere. Simply having market demand for residential properties in this area as claimed by the Applicant's economist¹⁹, is not an adequate reason to support the creation of a new satellite village in an area where there is inadequate infrastructure, including transport connections; and uncertainty as to provision of potable water and wastewater, to support it.
65. The overall low-density development with average lot size of around 666m² based on 15 households per hectares on the margins of the Greater Christchurch urban area is a significant departure from the expected medium density development anticipated for delivery of development capacity within Tier 1 Councils and in particular Objective 2 of the NPS-UD; which seeks to improve housing affordability through delivery of medium density housing in areas close to rapid mass transit transport routes and within walkable catchments of social services and employment. None of which are available to this site. Mr Cosgrove in his evidence notes that the proposed development is, "*unlikely to deliver low-cost housing relative to the city-wide average*", and that affordability contribution is instead indirect, in that it is increasing supply²⁰. There is no discussion on the likely price range of the residential development provided within PPC23.
66. Regardless, the NPS-UD along with the CRPS and the CDP require more than just capacity in addressing affordability. The evidence of the Applicant's planner also recognises this is only one element to contribute to the outcomes sought by NPS-UD. In their evidence, they state that new development must be able to be serviced; and for natural hazards to be appropriately managed; for the local transport network to function safely and efficiently; and for adverse effects on the natural environment to be adequately managed. However, it does not address the question of housing affordability or density other than to claim the site is exempt from the MDRS on the basis of qualifying matters and by providing additional supply overall it will have an indirect effect on housing affordability in the City.
67. The Section 32A report notes that Council resolved²¹ to opt out of applying the MDRZ across all residential zones on the basis that the City has sufficient capacity to meet demand over

¹⁸ S.42A. Para 1.1.8 – Technical Assessments required

¹⁹ Applicant's Planning Evidence. Para 11

²⁰ Mr Cosgrove evidence. Para 69

²¹ Council resolution 3 September 2025. The resolution was made under the Resource Management (Consenting and Other System Changes) Amendment Act 2025 to withdraw Plan Change 14 – Christchurch City Council's Intensification Planning instrument (IPI) creating an opt-out pathway (Schedule 3C) Section for both

the coming 30 years which is able to be provided through alternative zoning patterns and that the application of the qualifying matters for this site is consistent with the wider urban form outcomes sought by the Council across Christchurch's urban area, where *"higher density zones are focused around the larger commercial centres and public transport corridors, with lower density zoning across the outer suburbs and smaller villages such as the Site and nearby settlements such as Spencerville"*²².

68. The Council only very recently in its application to the Minister late last year, identified 65,600 commercially viable houses needed to be enabled in Christchurch to meet 30 years of expected high growth demand, and it also stated that this would be achieved through, "the 2017 District Plan Review", and through high density zoning'. Council stated that this increase in higher density zoned areas has increased 6-fold, and has been expanded from the central city to encompass an additional nine of the city's commercial centres and their surrounds²³. Earlier, in September 2025, the Council accepted the Independent Hearing Panel's recommendations for the Medium Density Residential Zone which included the following three areas:

- i. existing extent of the Residential Medium Density Zone (outside of areas at risk from coastal hazards); and
- ii. existing extent of the Residential Suburban Density Transition Zone (outside of areas at risk from coastal hazards); and
- iii. Areas of the Residential Suburban Zone around larger centres and along parts of the transport corridors connecting those centres.

69. However, the Council recognises that the highest growth will come from redevelopment and intensification of existing residential zoned sites. The site being zoned SPRZ is not an existing residential zoned site and was not included in these calculations²⁴ and has not been identified as a potential greenfield site either and according to Council's own recently published documentation, is not required to meet its obligations for plan enabled development under the NPS-UD.

70. With the inclusion of the High Density and Medium Density zones noted above (refer to Map 2 in **Attachment 2** of my evidence showing these areas), the Council provided sufficient evidence to the Minister that the city has sufficient commercially viable houses that are plan enabled to meet 30 years of expected high growth demand.

71. I note that Mr Cosgrove's evidence states that the average number of consents per year (4,160 over past 5 years) were well above both long-term average and annual demand implied by the HCA 2025 and that the Council's projections are "out of step with the real-world demand"²⁵. However, Mr Cosgrove suggests the majority of new plan-enabled

Christchurch and Auckland Cities where sufficient feasible housing capacity existing for 30 years plus 20% contingency. On 16 December 2025 RMA Reform Minister Chris Bishop approved CCC's request to withdraw the remaining parts of PC14 related to application of MDRS.

²² S32A Report – para 3.2

²³ Christchurch City Council Housing and Business Capacity Assessment. Oct 2025 - Table 3. Sourced: <https://ccc.govt.nz/assets/Documents/The-Council/Plans-Strategies-Policies-Bylaws/Plans/district-plan/Proposed-changes/PC14/CCC-PC14-Housing-Capacity-Assessment-October-2025.pdf>

²⁴ Refer Table 5 of document

²⁵ Mr Cosgrove evidence – para 49

dwelling, would be or are, predominantly attached and medium density topologies. Whereas, PPC23 is proposing a predominantly stand-alone housing typology. I note that Council in its HCA 2025 relies on high-density and medium density zoned areas in conjunction with its existing residential zoned suburbs, particularly where these areas are located along mass transit corridors, key public transport corridors and immediately adjoining or near centres. It is likely that Council has adopted this approach in part, to support low-carbon outcomes with less reliance on private vehicles, and for overall better housing affordability. These outcomes would not be achieved by giving effect to PPC23 in the short or medium term due to a lack of planned infrastructure in this area over this timeframe. Infrastructure constraints would also have been a factor as extending transport and three waters infrastructure ultimately has costs for Council in their on-going maintenance.

72. If in the event, the evidence of Mr Cosgrove is accepted and Council HCA 2025 predictions are unconsidered too low, this site would need to be infrastructure-ready at least in the medium term to meet the criteria in the NPS-UD. Without sufficient and expensive upgrades to the existing wastewater network, and upgrades to the roading network as proposed by the submitters transport expert Mr Smith (refer to his evidence in **Attachment 3** of this document), the site cannot be serviced beyond the existing SPRZ development provisions.
73. Having considered the geographic location of the site I do not consider the proposed development is necessary in this location to give effect to Objective 3 and Policy 3 as there is insufficient evidence that high demand for housing relative in this specific location represents a well-functioning urban environment. The site is not well-served by existing or planned public transport; or within or adjacent to other centres as required by the NPS-UD set out below:

Objective 3: Regional policy statements and district plans enable more people to live in, and more businesses and community services to be located in, areas of an urban environment in which one or more of the following apply:

- (a) the area is in or near a centre zone or other area with many employment opportunities
- (b) the area is well-served by existing or planned public transport
- (c) there is high demand for housing or for business land in the area, relative to other areas within the urban environment.

Policy 3: In relation to tier 1 urban environments, regional policy statements and district plans enable:

- (a) in city centre zones, building heights and density of urban form to realise as much development capacity as possible, to maximise benefits of intensification; and
- (b) in metropolitan centre zones, building heights and density of urban form to reflect demand for housing and business use in those locations, and in all cases building heights of at least 6 storeys; and
- (c) building heights of at least 6 storeys within at least a walkable catchment of the following:
 - (i) existing and planned rapid transit stops
 - (ii) the edge of city centre zones
 - (iii) the edge of metropolitan centre zones; and
- (d) within and adjacent to neighbourhood centre zones, local centre zones, and town centre zones (or equivalent), building heights and densities of urban form commensurate with the level of commercial activity and community services.

74. For the reasons set out below in my evidence I do not consider the site is representative of a well-functioning urban environment as sought under objective 1 of the NPS-UD and subsequently would not achieve objective 8 of the NPS-UD.
75. The sections below in my evidence consider those other planning documents informing planned urban built form including the purpose and intent of the Rural Urban Fringe Zoning (RuUFZ). It is my view that having considered those planning documents that the intensive development of this site beyond what is currently allowed is not an effective means of giving effect to the NPS-UD, the CRPS and the overall objectives and policies of the CDP. The benefits of the proposal are outweighed by the costs in relation to effects on the transportation network including reliance on private vehicles as the main form of transport; and lack of evidence on mitigation of adverse effects on the natural environment from addressing/mitigating effects from natural hazards within the site, and in particular ground water and freshwater systems.

Purpose and principles of Part 2 of the Act

76. Part 2 of the Act requires changes to a District Plan to have regard to any higher-level planning documents, any proposed or operative regional policy statement and plan; and any proposed or operative district plan in giving effect to the purpose of the Act.
77. In achieving the purpose of the Act, persons exercising functions and powers, must recognise and provide for matters of national importance including preservation of wetlands, lakes, rivers and their margins; protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna; the maintenance and enhancement of public access along lakes and rivers; the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga; and management of significant risks of natural hazards.
78. Particular regard must be paid to other matters including the efficient use and development of natural and physical resources, the efficiency of the end use of energy, the maintenance and enhancement of amenity values, the intrinsic values of ecosystems, the maintenance and enhancement of the quality of the environment, any finite characteristics of natural and physical resources, and the effects of climate change.
79. In giving effect to Part 2, persons exercising functions and powers must take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). This over-riding obligation is also relevant to the application of Te Mana o te Wai under the National Policy Statement for Freshwater Management. I note that the applicant has undertaken consultation with Te Ngāi Tūāhuriri Rūnunga over a previous 200-lot subdivision and associated land use consent application associated with the Covid-19 Fast Track process in 2022 that was not accepted for processing by the Minister. It does not appear the Applicant has re-engaged with the Rūnunga over this proposed plan change application and has used the Mahaanui Iwi Management Plan 2013 (MIMP) as the reference for any assessment of cultural impacts.
80. The S42A report has also adopted the same approach as the applicant and is satisfied that the cultural values could be addressed through any future consent process and application of the MIMP. Given the well documented values of the Ōuruhia as a mahinga kai area and the high ecological and cultural values of the Pūharakekenui Awa, a decision on changing the District Plan for this site to accommodate an additional 650 plus dwellings and associated

infrastructure in this location, must also give effect to Te Mana o te Wai principles. Given the NPS-FW was published almost 10 years after the publication of Ngāi Tūāhuriri's MIMP, reliance on an Iwi Management Plan without written confirmation from mana whenua to address these matters, would in my opinion not properly fulfil the obligations under Part 2 of the Act.

81. In giving effect to Part 2 of the Act, when making changes to a District Plan, all persons exercising functions and powers must provide for the protection of historic heritage from inappropriate subdivision and use, and development as a matter of national importance. Archaeological sites should be appropriately identified in any ODP where known and the potential adverse effects on them, including from the destruction and/or modification of recorded archaeological sites should be considered as part of the overall assessment.
82. I provide comment and opinion on the outcomes anticipated in the Canterbury Regional Policy Statement and relevant chapters of the Christchurch District Plan below. All other matters I address in this section.
83. Aside from the opinions I have given above on the NPS-UD above, and the overall position that the development does not represent a well-functioning urban environment I concur generally with the following recommendations of the S42A report in respect of application of the National Policy Statements with caveats as set out in the list below:
 - i. NPS-Urban Development: amend the Neighbourhood Centre maximum GFA to 1,000m² and remains in place regardless of the timing of construction of this centre. That is for the life of the zoning as this commercial centre contributes towards better urban outcomes for the proposed development;
 - ii. NPS-Natural Hazards:
 - I note that requirements for the Applicant to satisfy the NPSH-NH risk matrix assessment requirements to take into account Vertical Land Movement (VLM) and Relative Sea Level Rise (RSLR); and include methods for protecting the stormwater management facilities from groundwater intrusion; provide a tsunami risk assessment.
 - I note the reviews undertaken for the S42A report by Mr Charters that document unconfirmed geotechnical hazard risks remaining subject to the Applicant completing geotechnical modelling and the associated NPS-NH risk matrix assessment.
 - I note the reviews undertaken for the S42A report by Mr Norton and his advice with respect to flood hazard risks and how the Applicant would manage effects of elevated groundwater and SLR. I note the response to provide minimum ground levels and recommended building levels to take into account freeboard. In terms of creating a well-functioning urban environment, the matter of ensuring safe egress and ingress into the development in accordance with the acceptable guidelines (such as the Australian Disaster Guidelines) should also be a minimum requirement for any future development within the site.
 - iii. NPS-Highly Productive Land:

- the LUC 2 soils covered by the SPRZ zoning are exempt. However, I note that under the SPR zoning, farming continues to be permitted activity and when that land is included in the overall calculation of loss of LUC 2 land, it is likely to result in a loss of primary productivity across the wider area.
- I do not accept that there is insufficient capacity in the short-medium term to accommodate the expected demand and therefore there is no basis under the NPS-HPL to rezone the albeit small area of LUC2 land located in the RuUF zone.

iv. NPS-for Infrastructure:

- information to substantiate appropriateness of the accessibility network, transport safety and efficiency; including the integration of the stormwater management facilities with hydrological systems such that infrastructure required to service the PPC23 site is not exposed to unacceptable natural hazard risk that cannot be mitigated
- I note that the S42A report does not comment on the NPS-I in respect of the loss of a vehicular road access onto Lower Styx Road. The claim made in the S32 Report at paragraph 4.5 (Transport), that this change is to avoid disruption and potential effects on the ecology and functioning of the Styx River and flood basins has not been substantiated; or the costs of this change quantified in terms of this assessment and should be. According to the submitter's expert (refer to Mr Smith's evidence in **Attachment 4**) the loss of this connection to Lower Styx Road will have a significant adverse effect on the roading network should PPC23 proceed.

v. NPS on Freshwater Management (NPS-FM 2020 amended Dec 2025):

- The NPS-FM contains the fundamental concept of Te Mana o te Wai which involves six principles relating to the roles of tangata whenua and other New Zealanders in the management of freshwater, coupled with a hierarchy of obligations. The obligations are to be given effect to by Regional Councils and they must include an objective in their regional policy statement that prioritises:
 - a) first, the health and well-being of water bodies and freshwater ecosystems;
 - b) second, the health needs of people (such as drinking water); and
 - c) third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future.
- In giving effect to the NPS-FW, when considering the rezoning of this land, the potential adverse effects on Pūharakekenui Awa/Styx River – a habitat with significant cultural values and significant ecological values, must be fully understood and provisions in the plan change must be able to adequately address sediment runoff, contaminate generation, wetland loss, stream piping, stormwater effects and cumulative effects.
- I note the S45A review is unable to establish whether PPC23 is consistent with the objective and relevant policies of the NPS-FM and the relevant

provisions of the CRPS without sufficient evidence to substantiate the appropriateness of the stormwater management facilities and how they will function when elevated groundwater combined with SLR and other mitigation associated with flood modelling, has been completed;

- I would add to this finding that interference effects from proposed groundwater takes for potable water have also not been clearly established to confirm the proposal is consistent with the NPS-FM either.
- vi. NPS on Indigenous Biodiversity (NPS-I): I note the review of evidence by Dr. Shadbolt. However, the Applicant has made the claim that a proposed roading connection with Lower Styx Road would have adverse effects on the ecology of the Styx River. The applicant is instead proposing a 'light-weight structure' that will bridge the Styx River connecting pedestrians and cyclists to the Lower Styx Road. The S32 report notes that the change from a road access bridge to a pedestrian and cyclist access only bridge is *"in order to avoid the disruption and potential effects on the ecology and functioning of the Styx River and flood basins association with the construction of both a heavy road bridge and a raised causeway road carriageway across the lower terrace to connect the bridge to the upper terrace development area²⁶"*. This claim has not been elaborated on or substantiated by the applicant nor included as a suitable option for consideration in their S32 report; and subsequently has not been reviewed by Council's ecologist and should be.
- vii. NES for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS): I note the position of the S42A report on this matter and concur. I am unaware of whether the applicant has commented on the historic use of the land but according to Manaaki Whenua's Our Environment mapping, the lower terrace (LUC 2 land) is suitable for multiple land uses whereas the upper terrace area is suited to pastoralism or production forestry. It appears pastoral farming has been the predominant land use.

Well-integrated urban environment resilient to natural hazards

84. The S42A report identified natural hazard risks as one of the matters it was seeking further technical assessments on. Including:
- i. Geological engineering modelling that encompasses the slope separating the upper and lower terrace and how climate and SLR may affect groundwater levels
 - ii. Future effects of elevated groundwater and SLR managed by stormwater facilities
 - iii. Flood risk assessments by SQEP on VLM and RSLR for an appropriate assessment against the NPS-NH
 - iv. Tsunami risk assessment by SQEP to supplement the Council study completed in 2019
85. The Applicant has prepared evidence responding to the above requests but this does not include an appropriate flood model that sufficiently addresses potential downstream effects from placement of anticipated volume of fill and management of stormwater from the proposed development of 800+ dwellings, roading networks and hard stand areas. The site

²⁶ S32 Notified Report. Para 4.5, pg 20

is low-lying with high groundwater levels and is susceptible to liquefaction. When assessing suitable sites for future urban intensification, a cautious approach should be adopted given the high costs to the wider region and including risks to human life.

86. Furthermore, wastewater systems in coastal environments are also influenced by groundwater levels, rainfall-driven inflow and infiltration, and sea-level rise. These factors affect system loading and performance at a network level, rather than being confined to site-specific design. These same drivers are identified in the Section 42A report as requiring system-level assessment for stormwater effects, but no equivalent system-level assessment has been undertaken for wastewater infrastructure.
87. In my view, a recurring theme of the applicant evidence is reliance on the proposition that identified infrastructure and natural hazard risks can be addressed through future engineering design, subdivision consenting, or later-stage investigation processes. However, the key issue at the plan change stage is not whether engineering responses may ultimately be available, but whether the environmental effects, infrastructure implications, and long-term resilience consequences of enabling the rezoning have been sufficiently evaluated to support the rezoning decision itself. In several respects, including wastewater infrastructure, groundwater interaction, flood hazard, and long-term coastal change, I do not consider that the evidential record currently provides a sufficiently complete system-wide understanding of those effects. Reliance on future design responses or later consenting processes does not overcome the present absence of information necessary to determine whether the rezoning is appropriate under sections 32 and 74 of the Act.

Outcomes in the CRPS and the objectives and policies in the relevant chapters of the CDP

Canterbury Regional Policy Statement and Canterbury Land and Water Regional Plan

88. I acknowledge the statements made in the S42A report regarding the requirements to substantiate those matters listed in paragraph 1.1.8 noting that full assessments may not be known until regional consents are sought. However, when making changes to a District Plan a territorial authority must ensure those changes are not inconsistent with the Canterbury Regional Policy Statement or Regional Plans.
89. My comments in this section are in relation to whether the proposed use of the site is consistent with the outcomes sought in Chapter 6 of the CRPS.

Canterbury Regional Policy Statement (CRPS)

90. Chapter 6 of the CRPS was inserted into the RPS under the Land Use Recovery Plan (LURP) in December 2013. The purpose of which was to develop an urban growth framework and is intended to inform CDP provisions; provided for the Residential New Neighbourhood (RNN) zoning; greenfield development sequencing, housing density and infrastructure integration.
91. Change 1 to Chapter 6 of the CRPS was made operative on 28 July 2021 to give effect to new housing development areas in Rolleston, Rangiora and Kaiapoi on Map A in Chapter 6. Map A (**refer to Attachment 2** for a copy of this map) geographically sets out the locations where urban development should be prioritised. The location of these future development areas

have been identified taking into account the broader urban form and settlement criteria set out in CRPS Chapter 6.

92. The CRPS provides for new urban development within Greater Christchurch. Objective 6.2.1 – Recovery framework provides for recovery, rebuilding and development enabled within the Greater Christchurch area, including the subject site. The objective seeks to “*avoid urban development*” outside of existing urban areas or greenfield priority areas for development, unless expressly provided for in the CRPS. It is my opinion that the site is located outside of the existing urban area or greenfield priority area as shown on Map A.
93. The applicant makes the case that the development is provided for in the CRPS to meet housing bottom lines at a density (15 hh/ha) and typology (stand-alone dwellings) that has been identified as required in this part of Greater Christchurch. While the applicant makes the case for additional capacity, it is the view of the submitter’s transportation expert, that without the Lower Styx Road connection to service the development, the proposed changes should be declined.
94. Without the geographical and close connections to an existing centre, and lack of integrated transport infrastructure (both roads and public transport facilities), the overall development lacks the criteria for achieving a well-functioning urban environment.
95. It is also my opinion that the application does not sufficiently address the potential effects on freshwater (groundwater and surface water) from potential groundwater takes for potable water; and the management of the flood hazard and stormwater through construction of stormwater basins.
96. There are also outstanding questions as to whether the servicing of the site for wastewater can perform without resulting adverse effects on freshwater under natural hazard conditions including how such a system would interact with groundwater, sea-level rise, and wet-weather conditions.
97. I consider the proposed PPC23 does not give effect to the overall objective for new urban development within the Greater Christchurch area as set out in the CRPS.

Canterbury Land and Water Regional Plan - Te Mana o te Wai

98. The Canterbury Land and Water Regional Plan (LWRP) has been amended to give effect to the NPS-FM, including Te Mana o te Wai, through its plan change 7 which became fully operative on the 10 March 2025. Through this plan change, it sought to incorporate stronger freshwater protection and Ngāi Tahu values including strengthening provisions relating to freshwater species habitat protection; water quality and ecological health²⁷. Where the effects on freshwater are unable to be quantified sufficiently, District Councils should not modify their District Plan. This includes the following considerations:
 - vii. Groundwater limits and contamination effects
 - viii. stormwater contaminant effects

²⁷ On the 25 Oct 20024 the Resource Management (Freshwater and Other Matters Amendment Act 2024) came into force. This Act excludes the hierarchy of obligations in the NPS-FM from consideration in resource consenting, while a review and replacement of the NPS-FM is undertaken. It also restricted notification of freshwater planning instruments (regional policy statements and plans) that gave effect to the NPS-FM 2020 under a new NPS-FM takes effect on 31 Dec 2025.

- ix. stream ecological impacts
- x. wastewater capacity
- xi. wetland loss
- xii. cumulative catchment effects
- xiii. floodplain impacts; and
- xiv. Te Mana o te Wai considerations.

99. According to the CLWRP there are current restrictions in place for the Christchurch West-Melton Groundwater Allocation Zone except for group or community water supply (Rule 5.115). The CLWRP applies to the Styx River Catchment. Rule 5.115 provides for the taking and use of water for a community water supply from groundwater or surface water as a restricted discretionary activity where a Water Supply Strategy is prepared in accordance with Schedule 25 submitted with any resource consent application. The matters of discretion are listed in the figure below:

The exercise of discretion is restricted to the following matters:

1. The reasonable demand for water, taking into account the size of the community, the number of properties and stock that are to be supplied, the uses that are to be supplied and the potential growth in demand for water; and
2. The effectiveness and efficiency of the distribution network; and
3. The quality and adequacy of, compliance with and auditing of the Water Supply Strategy; and
4. The actual and potential adverse effects on other water takes, including reliability of supply; and
- 4A. The effect on the environmental flow and allocation limits within the relevant sub-region Sections 6 to 15; and
5. The potential benefits of the activity to the applicant, the community and the environment; and S42RR
6. Compliance with any relevant Water Conservation Order; and
7. The need for and extent of the proposed Community Drinking-water Protection Zone; and
8. The matters set out in Schedule 1 and the way in which those matters are responded to in the proposal for which consent is sought and the assessment of effects forming part of the application; and
9. The actual and potential effects on any user of land located within the proposed Community Drinking-water Protection Zone; and
10. Any adverse effects on Ngāi Tahu values or on sites of significance to Ngāi Tahu, including wāhi tapu and wāhi taonga; and
11. The potential adverse effects on any Critical Habitat.

100. Having considered the relevant provisions of the CRPS, I consider there has been is insufficient information particularly as it relates to groundwater effects, effects on infrastructure from natural hazards, and effects on the transport network to give effect to the relevant national planning direction in relation to regional planning matters.

Christchurch District Plan

101. Section 72 – 77 set out the requirements for District Plans. A local authority must amend its district plan in the manner set out in Schedule 1 of the Act; and any person may request a change to a District Plan explaining the purpose of, and reasons for the proposed change in accordance with an evaluation report prepared in accordance with Section 32 of the Act. Where environmental effects are anticipated, the request shall describe those effects in such detail as corresponds with the scale and significance of the actual or potential environmental effects anticipated from the implementation of the changes.

Strategic Objectives

102. Chapter 3 of the District Plan sets out the intent and purpose of the strategic objectives that are relevant to this plan change application as follows²⁸:

“a. For the purpose of preparing, changing, interpreting and implementing this District Plan:

All other objectives within this Chapter are to be expressed and achieved in a manner consistent with Objectives 3.3.1 and 3.3.2; and

The objectives and policies in all other Chapters of the District Plan are to be expressed and achieved in a manner consistent with the objectives in this Chapter.”

103. The relevant objectives to consider include:

- **Objective 3.3.1** – Enabling recovery and facilitating the future enhancement of the district: *including meeting the community’s immediate and longer term needs for housing, economic development, community facilities, infrastructure, transport and social and cultural wellbeing*
- **Objective 3.3.3 – Ngai Tahu mana whenua:** *including the active participation of mana whenua in decision-making*
- **Objective 3.3.4 – Housing bottom lines and choice:** *including ensuring housing opportunities available to meet the diverse and changing population and housing needs of Christchurch residents*
- **Objective 3.3.6 – Natural hazards:** *including ensuring new critical infrastructure only in areas where there are natural hazards where there is no reasonable alternative; and the have been designed to maintain integrity and form during natural hazard events; and all potential risk to people, property and infrastructure are appropriately mitigated; and*
- **Objective 3.3.7 – Well-functioning urban environment**
- **Objective 3.3.8 – Urban growth, form and design:** *including*
 - a. *a well-integrated pattern of development and infrastructure, a consolidated urban form, and a high quality urban environment;*
 - i. *...*
 - ii. *Has its areas of special character and amenity value identified and their specifically recognised values appropriately managed*
 - iii. *Provides for urban activities only*
 - A. *within existing urban areas unless they are otherwise expressly provided for in the CPRS; and*
 - B. *on greenfield land on the periphery of Christchurch’s urban area identified in accordance with the Greenfield Priority Areas in the CRPS Chapter 6 Map A*
 - iv. *Increasing housing development opportunities in the urban area to meet intensification targets specified in the CRPS, Chapter 6*
 - A. *in and around the Central City, Key Activity Centres, Town Centres, Local Centres; and nodes of core public transport routes; and*

²⁸ CDP, Chapter 3 Strategic Direction - Interpretation

- B. *in those parts of Residential Greenfield Priority Areas identified in CRPS, Chapter 6, Map A; and*
- C. *in suitable brownfield areas*

- v. ...
- vi. ..
- vii. *Has good accessibility for all people between housing, jobs, community services, natural spaces and open spaces including by way of public and active transport; and*
- viii. *Promotes the safe, efficient and effective provision and use of infrastructure, including the optimisation of the use of existing infrastructure; and*
- ix. *Co-ordinates the nature, timing and sequencing of new development with the funding, implementation and operation of necessary transport and other infrastructure*

- **Objective 3.3.10 – Natural and Cultural Environment**
- **Objective 3.3.12 – Community facilities and education activities**
- **Objective 3.3.13 – Infrastructure**
- **Objective 3.3.15 – Incompatible activities**
- **Objective 3.3.17 – a productive and diverse rural environment**
- **Objective 3.3.18 – Wai features and values and Te Tai o Mahaanui**

Current Zoning Provisions

104. It is worth also considering the purpose and intention of the Rural Urban Fringe Zone (RuUFZ). There is no specific definition of this zone in either the CDP or the CRPS. It is typically associated with Rural zones on the fringe of urban areas as described in its heading. It can sometimes be associated with a future urban zoning but in the case of the CDP this is not clear. The performance standards for this zone have been adopted as a type of ‘underlying zone’ for both the SPRZ and for in some parts of the Open Space Metropolitan Facilities Zone (for the Yaldhurst Recreation and Sports Facility). It seems to be the transitionary zoning between rural land use and an intentional land use such as the Whisper Creek golf course. The matters of discretion for activities requiring consent in this zone include, managing effects on rural character and amenity values of surrounding environments where they may be a move towards a more urban character²⁹.
105. The proposal represents a significant departure in character from what is anticipated under the SPRZ and as noted in the application would represent a ‘village’ type development similar, albeit on a larger scale, to Spencerville.
106. The context for the current zoning of the SPRZ is provided in the objectives and policies for this zone in the CDP. The zoning is to enable a golfing and associated facilities (including resort facilities) in a rural environment due to the need for a large area of land. It provided

²⁹ CDP. See Matters of Discretion 17.11.2.6 – Residential activities on existing small sites;

limited residential development opportunities where significant adverse effects on natural and adjoining rural environments could be avoided.

107. In approving the plan change creating this zone it recognised the economic and social benefits it would bring not only to the City but to the region. It sought to ensure to limit effects on overall urban consolidation through limiting the scale of development and type of development. Policy 13.9.2.1.2(a) of this zone states, *“limit urban development detached from the remainder of Christchurch urban area... by:*
- i. Ensuring that the scale and nature of resort hotel, residential and commercial development areas with golf resorts is complementary and subsidiary to the primary recreational function of the resorts;*
 - ii. Adopting a clear distinction between resort hotel and residential development, both in terms of the nature of each type of development and its location within the overall site;*
 - iii. [Noise management within the airport noise contour]”*
108. The current zoning recognises the need to balance the rural character of the surrounding area with the use of the SPRZ site through, ensuring adequate separation distances from activities in adjacent zones, particularly to mitigate effects from noise and traffic. The current zoning could be seen as a stepping stone towards landuse with a more urban character, but at low densities of ‘typical’ urban development.
109. Flood risk mitigation is an important factor in the development of these sites; and for Whisper Creek, Policy 13.9.2.1.4 of the CDP required careful siting of earthworks and buildings to be resilient to liquefaction, and to maintain flood storage capacity in the Lower Styx Ponding Area and potential flood damage to buildings in a major flood event.
110. I note that the S32 assessment had not considered other zonings including Residential Small Settlement Zone which is intended to cover smaller more isolated villages or settlements. The description in the District Plan for this zone states, *“covers the many small settlements of Banks Peninsula as well as settlements of Kainga and Spencerville to the north of Christchurch. Lot sizes within settlements are typically larger than urban areas reflecting their existing character and providing lower density, semi-rural living environment with the exception of Kainga, where smaller lots are provided for. New development is consolidated in and around existing settlements. Control of roof reflectivity seeks to blend buildings into the rural landscape.”*
111. The S32 Report notes that the RNN Zone is, ‘the standard zone that applies to greenfield residential areas in Christchurch’ and it is on this basis that it suggests the policy and rule framework is, *“well-suited to managed the effects associated with greenfield residential development.”*
112. Under the proposed new zoning of Residential New Neighbourhood (RNN), Table 14.2.1.1a of the Christchurch District Plan (CDP, *“generally includes new areas of greenfield land where large-scale residential development is planned. The zone will allow a wide range of residential house types and section sizes to provide for a wide spectrum of household sizes and affordable housing. People will therefore be able to remain within the neighbourhood throughout their lifetime as they move to housing types that suit their life stage. These areas*

are intended to achieve higher overall residential densities than traditionally achieved in suburban developments.” Given the constraints on the site, the stand-alone housing proposals and resulting lower density of development (average lot size of 660m²) it is difficult to see how this zoning is a “good fit” for this site.

Proposed Density of PPC23

113. The S.32 Report also notes that it is, “common for RNN zoning to extend to cover basins and parks directly associated with housing developments, with their use guided by the ODP.” However, by extending the RNN zoning into these areas within the site, it increases the overall density that could be provided from 800 dwellings to well over 1000 dwellings. In their application the applicant speaks generally about providing for 800 households as a minimum, but it could this volume could increase under the ODP, where it can be demonstrated that there is sufficient available volume of potable water and capacity of the local pressure wastewater network. This would result in further effects that have not been adequately assessed through this plan change. This could be achieved as a restricted discretionary activity under PPC23.
114. I note that the RNN zoning over this large area of open space³⁰ has also been questioned in the RFIs with a question posed as to why it is not proposed for the area to be utilised for stormwater basins to be open space zoning given its primary use. If the RNN zoning over this area has been chosen to achieve higher densities at some later time, this needs to be raised and the implications of it clearly understood.

Development Constraints

115. The ODP proposes to retain the Wastewater Constraint Area although the application notes that *“there is no barrier to wastewater reticulation that would prevent the plan change from proceeding”* The main purpose of the Wastewater constraint areas is to act as a qualifying matter to enable the exemption to applying MDRS³¹.
116. The applicant proposes the ODP ensures there is a *“local pressure sewer network, discharging to via a pressure main along Spencerville Road, into the Lower Styx Road gravity sewer network, including odour treatment, corrosion protection and the upgrade of the to Heyders Road Pumpstation (PC78), to be designed and constructed in accordance with an Infrastructure Provider Agreement incorporating Council standards and requirements”*³². The Council standards and requirements are not specified in PPC23 but would include any consenting requirements and observation of minimum design standards. However, application of these design standards may not specifically address the relevant matters set out in Policy 8.2.2.9 of the CDP – Outline Development Plans. The relevant policy matters are highlighted in bold in the policy list below:

- i. land uses will be distributed in a way that is consistent with Policy 8.2.2.8³³;*

³⁰ Refer to Council RFIs

³¹ CDP - Chapter 6.1A.1

³² PPC23 – Appendix K proposed wording of ODP

³³ Policy 8.2.2.8 of the CDP is in respect of Urban Density. For the RNN it requires a minimum net density of 15 households per hectare to be achieved when averaged across the whole of the residential except in areas shown on an ODP that are subject to development constraints

- ii. *land for community uses will be provided in locations convenient to the community and of an adequate size to serve the intended population;*
- iii. ***adequate infrastructure capacity will be available*** to service the intended population and/or business activities;
- iv. ***infrastructure and transport connections will be integrated effectively with networks in neighbouring areas, and with strategic infrastructure;***
- v. *infrastructure and transport connections through the outline development plan area will support co-ordinated development between different landowners;*
- vi. ***natural hazards will be managed in an integrated way across the area; and***
- vii. ***significant natural and cultural heritage features, sites of Ngāi Tahu cultural significance identified in Schedule 9.5.6.1, and the quality of surface water and groundwater, will be protected***

117. Having reviewed the application documents, I am of the opinion that the proposed changes to the CDP would not achieve a well-functioning urban environment. That on balance, when considering the applicant's proposition that the new village is required to achieve minimum housing bottom line over the next 30 years, that overall the proposed development in this location, will not achieve the other strategic objectives including those matters set out in the CRPS.

Potential adverse environmental effects

Transport

118. It is the view of the submitter's transportation expert Mr Michael Grant Smith that without a Lower Styx Road roading connection servicing the Outline Development Plan the effects on the existing roading network will result in a significantly lower level of service on those roads, risks of increased road safety including increased serious crash rates. On this basis alone, Mr Smith is recommending the PPC23 be declined in its present form. Mr Smith's evidence is included at **Attachment 3** of my evidence.
119. Should the Hearing Commissioner consider commending PPC23 for inclusion in the CDP, amendments are proposed to the CDP provisions to include a cap on the development levels; requirements for Road Safety Audits as part of the subdivision process; to provide for roads to be adequately protected from inundation; and for changes to the roading hierarchy and existing roading corridor. Refer to **Attachment 4** for amendments proposed to the ODP.

Infrastructure Capacity and Delivery

120. The Section 32 assessment and subsequent responses to further information state that the overall yield would be 800 dwellings. It also states that any subdivision would be in accordance with the provisions of the ODP. Unless otherwise specified, the ODP does not specify a minimum site area or minimum density or the maximum yield. The Applicant is now seeking to extend the volume beyond 800 dwellings if there is sufficient capacity in a water supply or wastewater supply. The potential effects of increasing the density beyond this level have not been adequately addressed across the respective matters.
121. A Local Pressure System (LPS) is recommended by the applicant as the preferred servicing approach, together with developer-funded upgrades to existing Council pump station 78.

Wastewater is proposed to be conveyed to the Bromley Wastewater Treatment Plant via the existing sewer main along Lower Styx Road. While council engineers have confirmed there is no capacity constraint at the Treatment Plant itself - the constraint is identified as being in the conveyance between the site and the plant. The absence of system wide wastewater assessment forming part of the S32 report is directly analogous to the information deficiencies identified by the Reporting Officer in respect of stormwater, natural hazards, and related infrastructure matters.

122. The Section 42A report makes clear that site-level assessment is insufficient where stormwater performance is influenced by groundwater, sea-level rise, and other cumulative processes. These same physical drivers apply equally to wastewater infrastructure. However, unlike stormwater, the wastewater assessment presented in support of PPC23 remains confined to on-site servicing and connection feasibility and does not establish the performance of the receiving network under current or future environmental conditions. This creates an inconsistency in the assessment of infrastructure effects. Without system-level modelling of the receiving wastewater network, including the influence of groundwater, sea-level rise, rainfall-driven inflow and infiltration, and related cumulative effects, the wastewater effects of PPC23 are not capable of being properly understood or evaluated.
123. Furthermore, each site is required to have a pump connected to a common rising sewer in the street berm combining privately owned pump and storage units, and common reticulated pressure network within the roading corridors. The advantage of these systems are that they can be attenuated, subject to a suitable telemetry or peak flow controls being installed on each system, to reduce peak flows within the common sewerage network. If the application is reliant on the advantages of this system reducing peak flows, this should be a matter of control in the provisions of the ODP.

Potable Water

124. The applicant has advised that they will supply potable water from deep groundwater aquifer. The S42A report evidence on groundwater abstraction notes that additional water supply will be required and would be limited to sourcing from Aquifer 3, 4 or 5 as there are risks to drinking water safety in Aquifers 1 and 2. No consent has been sought from ECAN for this and the application does not include any correspondence with ECAN on this matter but notes that interference effects, including on the Styx River, would be addressed through that process. This creates uncertainty as to whether the development can be adequately serviced. Furthermore, there is a lack of information confirming the effects on freshwater will be avoided.
125. The application does not specify where water for fire-fighting supplies will originate from. If it is to be supplied from groundwater.

Groundwater

126. The applicant's three water's expert acknowledges high groundwater levels that will have implications on stormwater basins. The expert notes that dewatering may be a method to reduce groundwater levels but would require regional council consent. Uncertainty remains in respect of dewatering, if it is considered necessary or indicated as likely, on the adjacent stream and/or water takes. Adequate flood and associated groundwater modelling,

including during winter, should form part of the ODP to inform the extent of attenuation areas that will be required to accommodate not only the fill placed in flood hazard areas; but also the increased velocities coming from the developed sites. Without explicit standards included in the matters of discretion, there will be limited or no ability for the Council to decline a subdivision within the ODP, should it be determined there is insufficient area to accommodate the volumes needed to manage both stormwater and the flood hazard.

127. Groundwater levels in water are modelled to be approximately RL 1.5m and are expected to rise to give a future groundwater level of RL 2.7m. This is the level adopted as the “minimum static water level” in constructed stormwater attenuation areas (referred to in the application as ‘stormwater wetlands’). Therefore, any recommended building levels (RBLs) would need to not only accommodate the future groundwater level and static stormwater attenuation level but also freeboard leading to recommended building levels (RBLs) of RL4.10. On the upper terrace where the residential development would be occurring this would require approximately 1m in depth of imported fill. This elevated building platforms will sit elevated above the ground level of the adjoining roads and adjacent rural properties. The effects of this from a landscape and visual amenity perspective are significant and will be difficult to mitigate (or enforce compliance with consent notices being the proposed mitigation solution).

Assessment of Costs and Benefits — is PPC23 more effective and efficient than the operative SPRZ and RuUFZ provisions

128. PC 45 recognises that the resort development was dependent upon the viability of the golfing academy proposal. The Hearing Commissioner therefore found that, the development, when considered as a whole, had the potential to become a significant contributor to the district, regional and national economy. Without the golf course being viable, the overall purpose of the SPRZ fails. This has always been the difficulty with embedding Outline Development Plans into District Plans, which if they then fail to progress compromises the integrity of the planning provisions in a District Plan. Instead of falling back on the underlying or previous zoning of the land, landowners inevitably want to retrieve the value of the land on the basis of what could have been achieved. However, these plan changes providing for new zones are often granted having considered their economic benefits outweighing the costs of losing land uses provided for by the underlying zones. This was the case for Whisper Creek as recorded in PC45 documents.
129. Under the SPRZ, all the provisions of the RuUFZ continue to apply, therefore making up the status quo option. Along with residential dwellings (on a minimum of 4ha allotments), the zone provisions also allow for farming, and associated farm buildings including commercial greenhouses, packing houses, milking shed. It also provides for rural produce retail areas and rural produce manufacturing areas, rural tourism activities, and hosted and unhosted visitor accommodation, all as permitted activities subject to minimum performance standards.
130. The starting point for assessment of costs and benefits should therefore not just simply be a comparison between the golf activities and future residential development; but between the underlying parent rural zone activities and future residential development. Establishing

a threshold test for these assessments factoring in the ownership of the resource (whether it is in public or private ownership) is also important³⁴.

131. For this site, there are transitional provisions that continue to allow development in the form of what was anticipated under the RuUFZ provisions. These continue to have effect, and it is for this reason that the technical information identified in the S42A report³⁵ regarding quantifying the economic costs from the loss of rural land and other externalities is relevant.
132. Mr Fraser Colegrave's evidence addresses this in part but does not seem to factor the economic value of the use of the land under the SPRZ if it continues to be utilised for rural activities, as it currently is. The claim is made that the site is fragmented and cannot support independent rural production. However, I have not sighted a report on rural productivity from a suitably qualified person in the notification documents. Such reports quantifying these costs typically are prepared to support developments located within highly productive land for example³⁶.
133. In my opinion, the focus on favouring the benefits of providing larger lots with stand-alone dwellings as a market driver as the reason for supporting this plan change and ignoring the costs that smaller farm lots contribute to a rural community, is unbalanced and under-represents those rural land use as a suitable market option.
134. In addition, in my opinion Mr Colegrave's evidence supposes the commercial centre proposed within the ODP will be widely used by the wider community. Given its distance to Spencerville, this centres distant location within the development and its lack of accessibility by virtue that it is only accessible and visible only from internal roads within the proposed development, I think this centre will predominantly be used by the residents of the site.

Conclusion

135. This evidence has considered the merits of PC 23 in the context of Part 2 of the Act and the hierarchy of planning documents. Having reviewed these documents within the context of the Application, responses to further information and additional evidence submitted by the applicant, along with the Section 42A Report, I am of the view that the proposed development does not represent a well-functioning urban environment.
136. The Council has only recently confirmed that it has sufficient plan enabled infrastructure ready development capacity within its existing residential zoned sites and identified greenfield sites. I agree that this of itself is not a reason to dismiss a private plan change application to rezone further land for residential development. However, on balance the distance of this site to existing centres, to any public transport network and unresolved matters relating to natural hazards and effects on freshwater, along with the poorly designed transport network would signal costs of PPC23 outweigh the benefits. These costs

³⁴ CC C169/01 – S32(1) Cerebos Gregs Ltd vs DCC

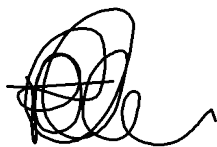
³⁵ S.42A Report – para 1.1.8

³⁶ S.32(2) recommends quantifying costs from economic growth anticipated to be provided or reduced, where it is practicable to do so.

could be significantly higher if more than 800 households were to proceed as provided for under the proposed ODP.

137. The Section 32 analysis did not adequately address all potential options including the status quo and continued application of the underlying RuUFZ activities. In my opinion there has been too much reliance on the application of the SPRZ as creating an urban activity/activities when in fact the only component of the Whisper Creek Golf Course that is urban in nature are the 150 dwellings. Consideration in the Section 32 analysis should have assessed amending the current zoning performance standards to enable that current residential development of 150 dwellings, to proceed without the golf course activities, as a suitable alternative.
138. The site is located within an area of significant cultural and ecological value. The Pūharakekenui Awa/Styx River adjoins the site and carries mahinga kai values of importance to Ngāi Tūāhuriri. The application has not adequately addressed the obligations under Te Mana o te Wai or the requirements of the NPS on Freshwater Management in relation to effects on this awa and the associated groundwater system. A decision to rezone this land for large-scale residential development must give proper effect to these obligations, and in my opinion the evidential record does not yet support that conclusion.
139. The site does not meet the locational criteria for a well-functioning urban environment under the NPS-UD, the CRPS and ODP. It is not serviced by existing or planned public transport, is not within or adjacent to a centre zone, and is not identified as a greenfield priority area in CRPS Chapter 6 Map A. Christchurch City Council has confirmed it has sufficient plan-enabled capacity to meet 30 years of high-growth demand without this site. Having considered all potential costs and benefits, I am of the view that the costs of PPC23 — including unresolved infrastructure constraints, natural hazard risks, transport effects, and freshwater obligations — outweigh the benefits of enabling additional housing supply in this location.
140. Having reviewed the potential adverse effects as they relate to planning matters, I consider there are still outstanding matters to be addressed to substantiate the level of development and the infrastructure servicing of that development and the effects of that on the environment. In particular, further information should have been sought in respect of effects of potable water demand and effects on groundwater interference and potential health risks; management of the flood hazard taking into account the high groundwater levels; effects from not constructing the vehicular bridge to Lower Styx Road on the overall transportation network; ecology; and effects on timing of the development and whether it can be sufficiently serviced by infrastructure, particularly wastewater within a reasonable timeframe.
141. Accordingly, I would recommend that PPC23 be declined on the basis that the overall objective and purpose of PPC23 does not achieve Part 2 of the Act and has not sufficiently addressed matters of national importance; and that there is insufficient evidence to support this development as a well-functioning urban area.
142. Should the Hearing Commissioner be of a mind to approve PPC23, I have provided additional comments on Attachment K and the applicant's proposed changes to the COP that are supported by the decisions sought by submitters and their submissions I represent with my planning evidence (refer **Attachment 4**).

Dated this Tuesday, 15 May 2026

A handwritten signature in black ink, appearing to be 'Anna Carter', written in a cursive style. The signature is positioned above a horizontal line.

ANNA CARTER

ATTACHMENT 1 –

List of Submitters Represented in this evidence

Ouruhia Residents Group Submitters

Name	Submission Number
Ouruhia Residents Group – George Nimmo	70
Ian Blackler	2
Stephanie Blackler	3
Rowena Watson	4
Steven A and Kay P. Baker	6
Spencerville Residents Association – Vivian Knight	14
Deanna Riwaka	20
Dominic Lowe	24
Craig Wakelin	26
Marcus Stewart	29
Angela McDonald	31
Debbie Ling	34
Jenny Knight	42
Danny Knight	45
Ross and Karen Winter	53
Karen Wakelin (Wakelin Family Trust)	55
Michael Wells	73
Tammy Wells	74
Kristin and Andrew Buxton	71
John Messserly	75
Lyndia Maurice	68
Heidi King	36

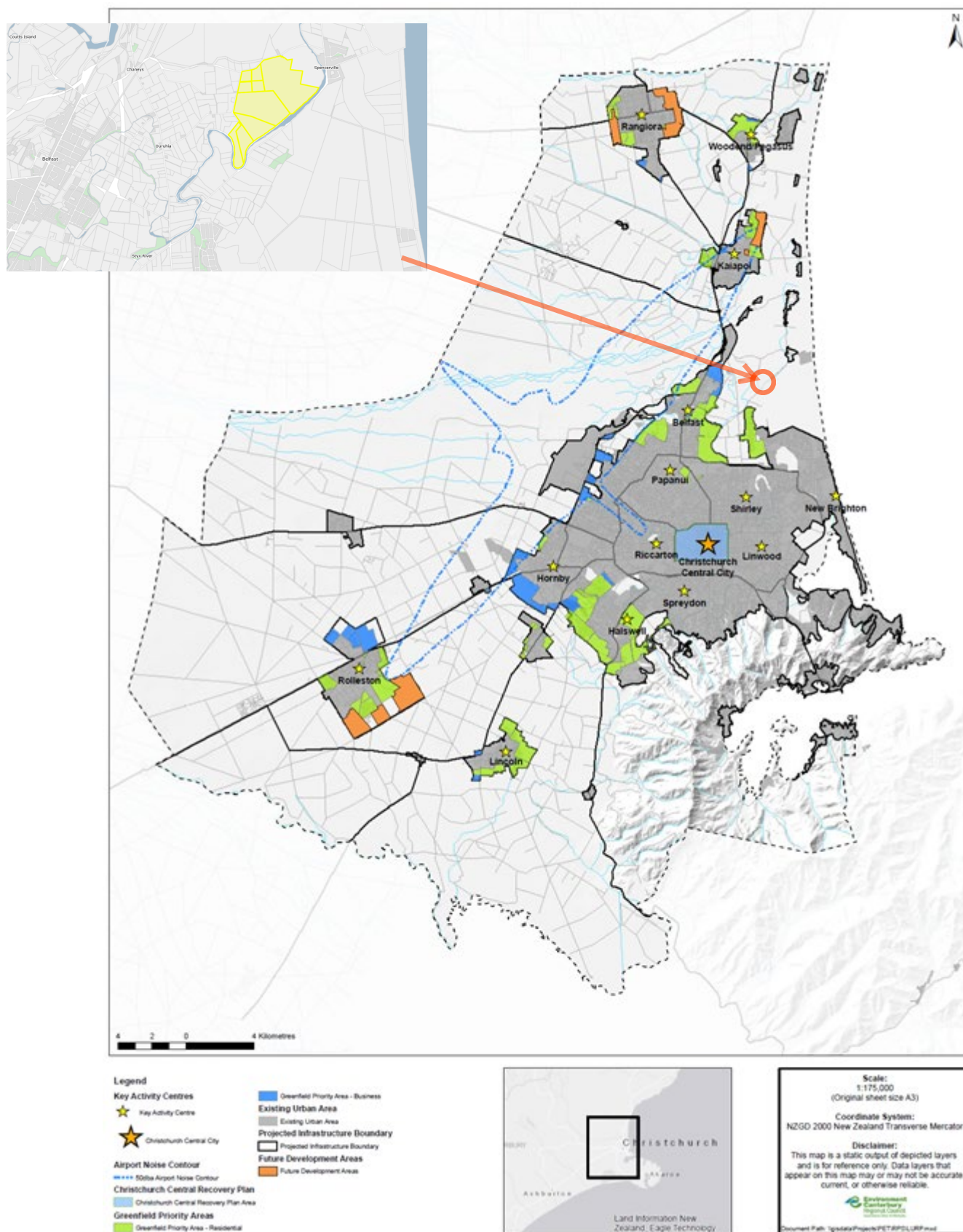
ATTACHMENT 2

Christchurch Growth Strategy Maps

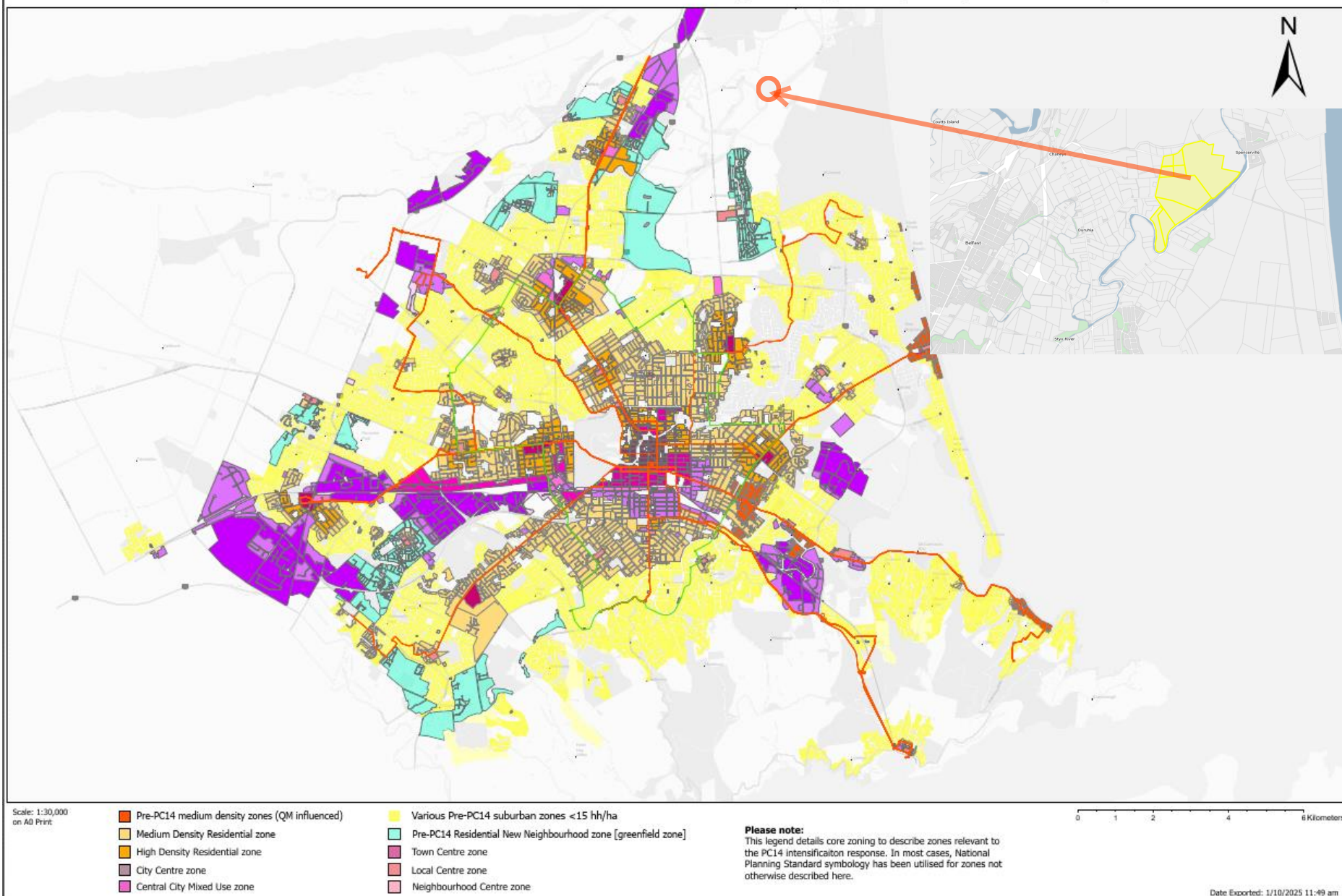
**Christchurch Housing & Business Capacity
(2025 Maps)**

**Canterbury Regional Policy Statement –
Map A**

Map A - Greenfield Priority Areas and Future Development Areas (viewable in more detail at www.ecan.govt.nz)



Christchurch Urban Environment – District Plan Zones (with high frequency bus routes)



Source: Christchurch City Council: Overview of PC14 Withdrawal Requirements

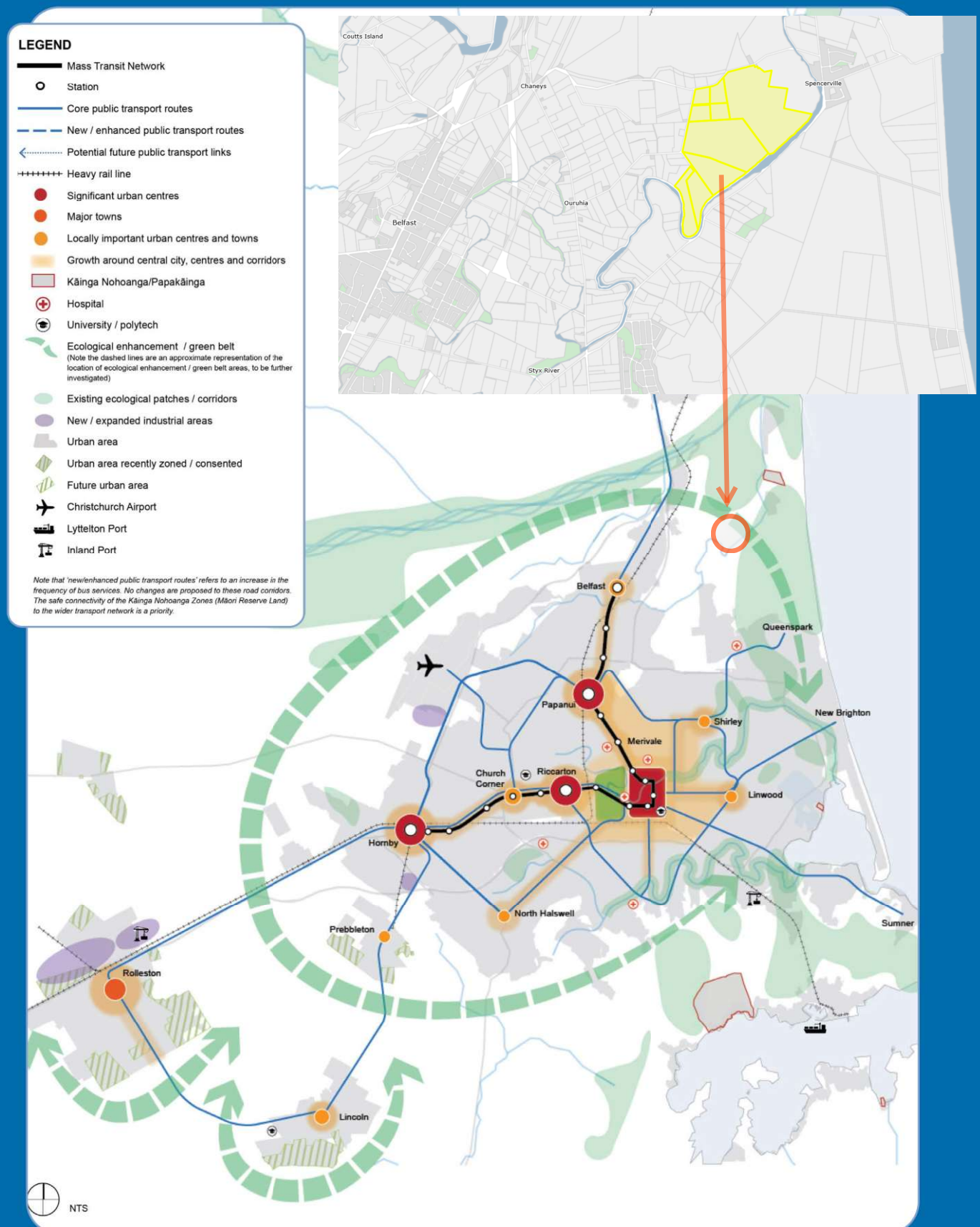


GREATER CHRISTCHURCH SPATIAL PLAN



Greater Christchurch
Partnership
Te Tira Tū Tahī
One Group, Standing Together

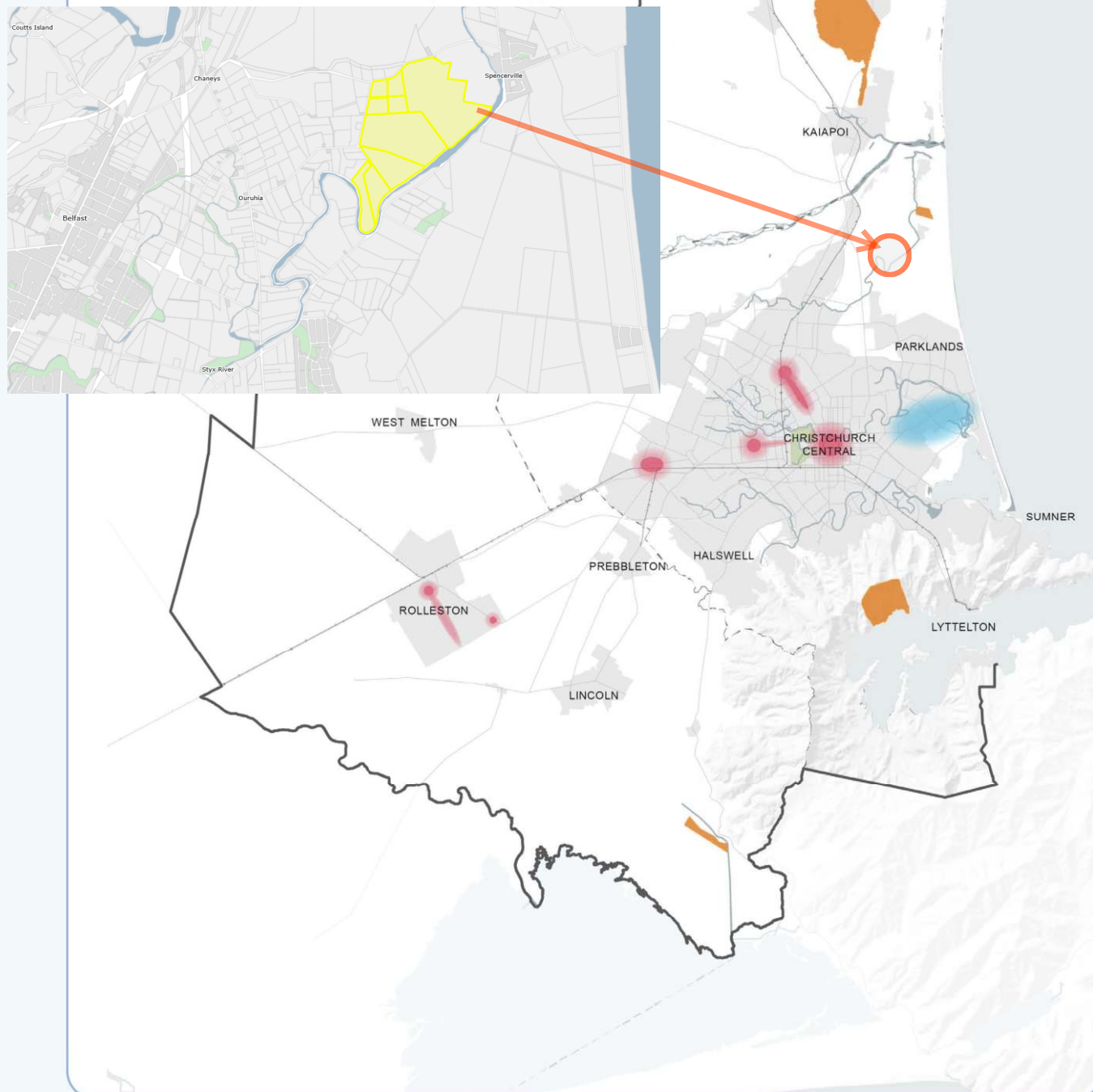
Map 2: The Greater Christchurch spatial strategy (1 million people)



Map 4: Priority Areas for Greater Christchurch

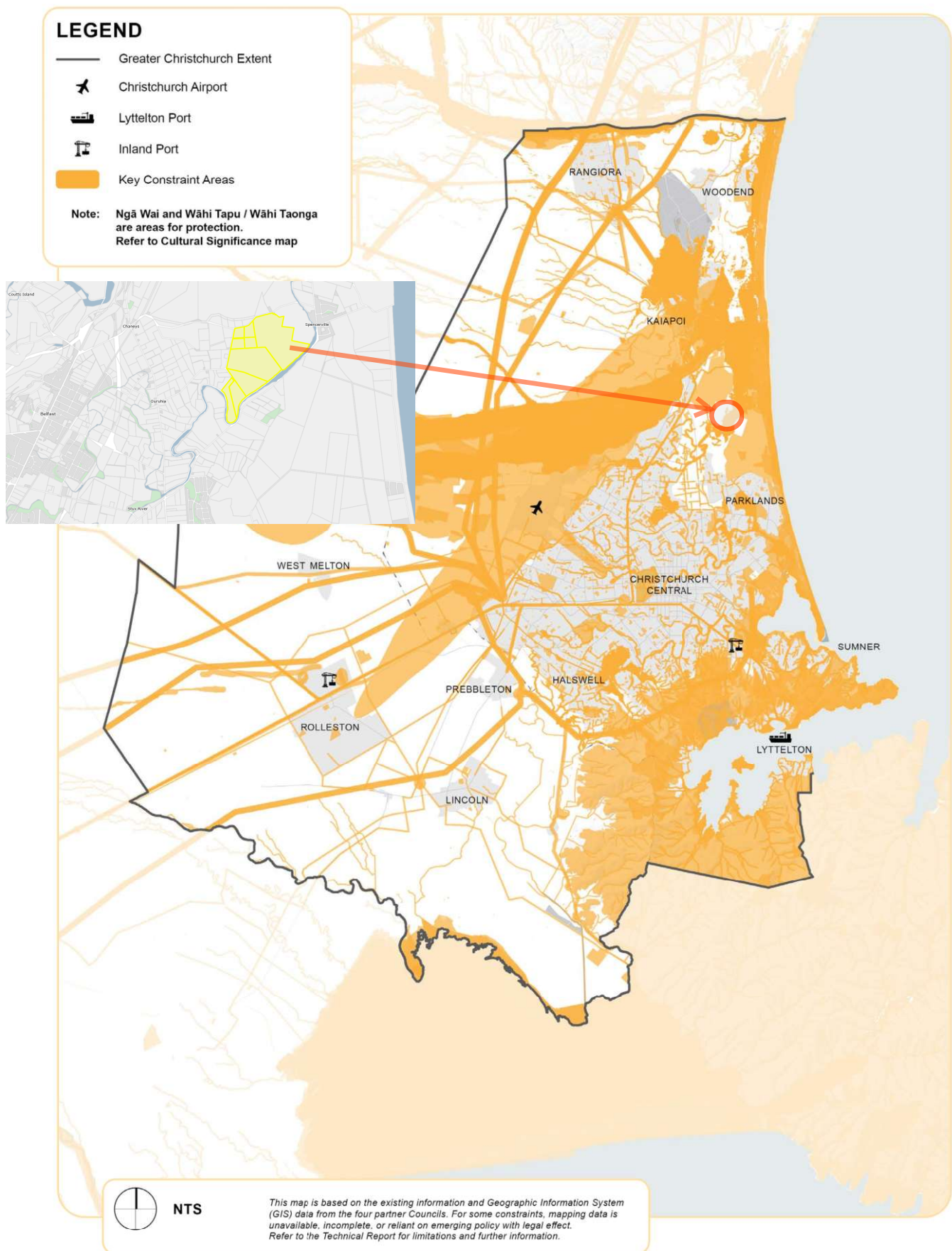
LEGEND

-  Greater Christchurch Extent
-  Priority Areas Arising from Te Tiriti Partnership - Māori Reserves
-  Priority Development Areas
-  Priority Regeneration Area

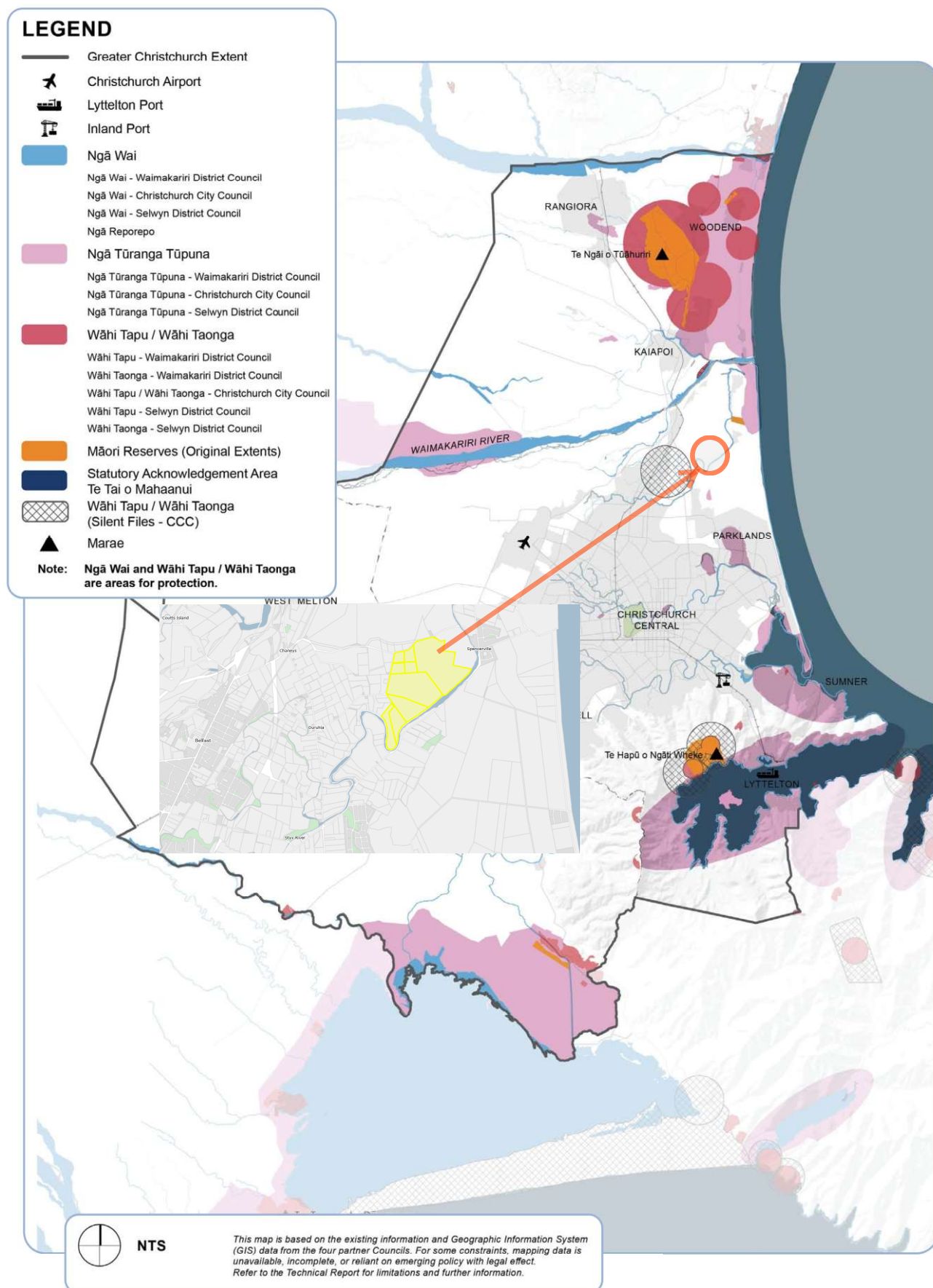


Note: This map shows the Māori Reserves, but not the Priority Areas arising from Te Tiriti Partnership includes Kāinga Nohoanga on Māori reserves and in Urban Areas

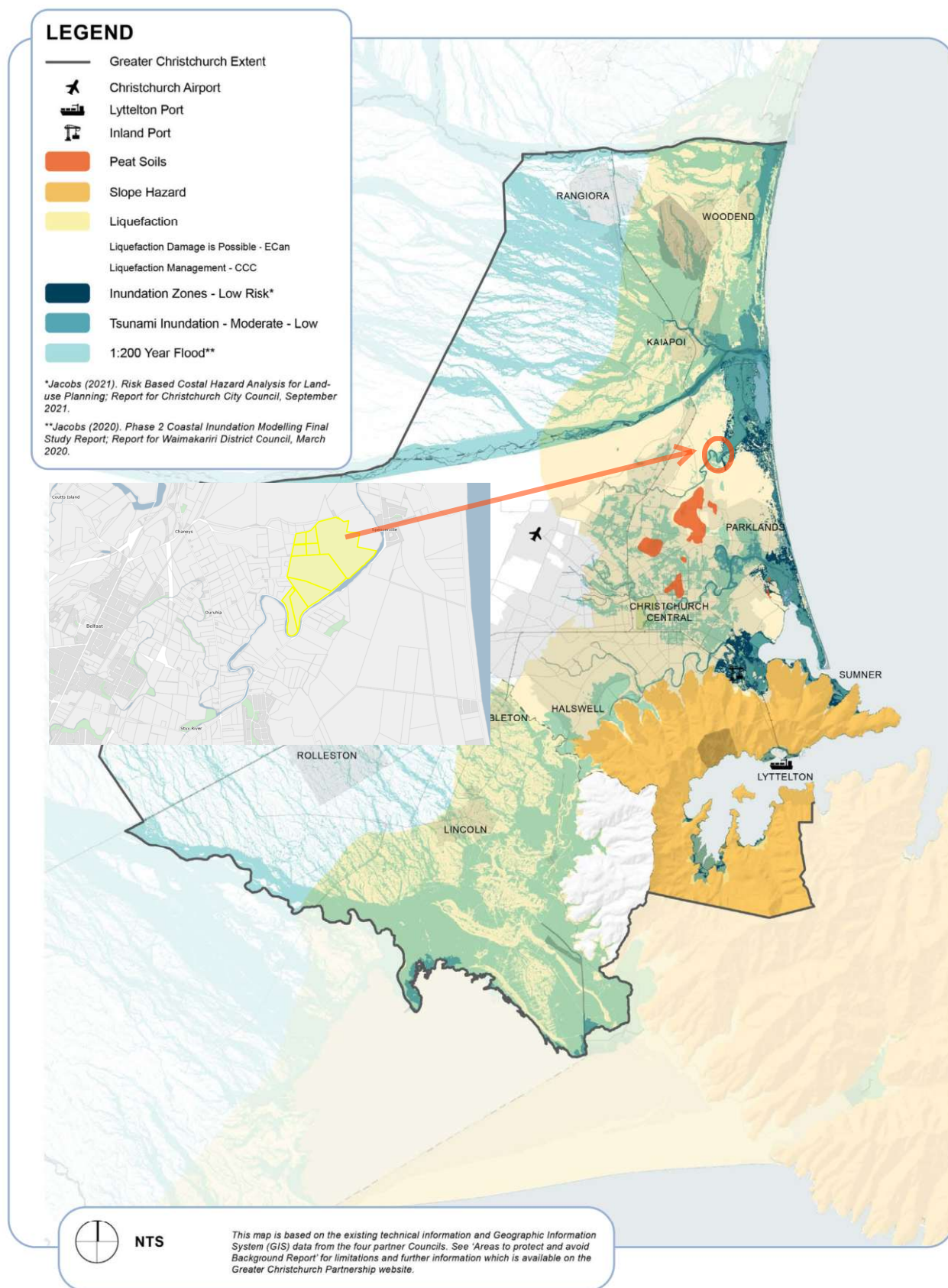
Map 5: Key constraint areas



Map 6: Sites and areas of significance to Māori



Map 8: Areas subject to moderate natural hazard risks

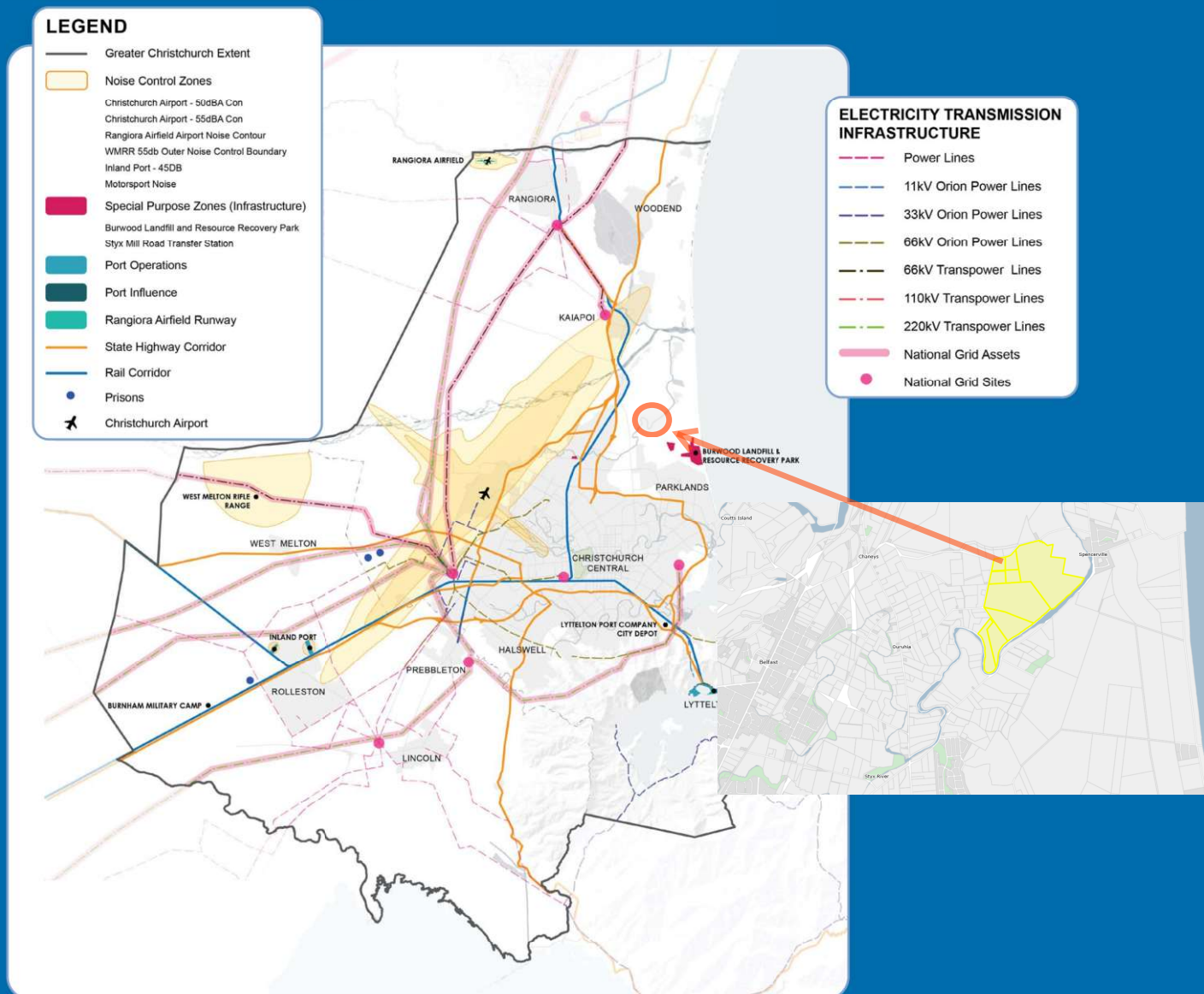


Protecting strategic infrastructure

Urban development should be carefully managed around strategic infrastructure to ensure the safety and wellbeing of residents, and to safeguard the effective operation, maintenance and potential for upgrades of this infrastructure. Key strategic

infrastructure in Greater Christchurch includes Christchurch Airport, the Port of Lyttelton, the inland ports at Rolleston and Woolston, state highway and rail corridors, the National Grid and the electricity transmission and distribution network (see Map 9).

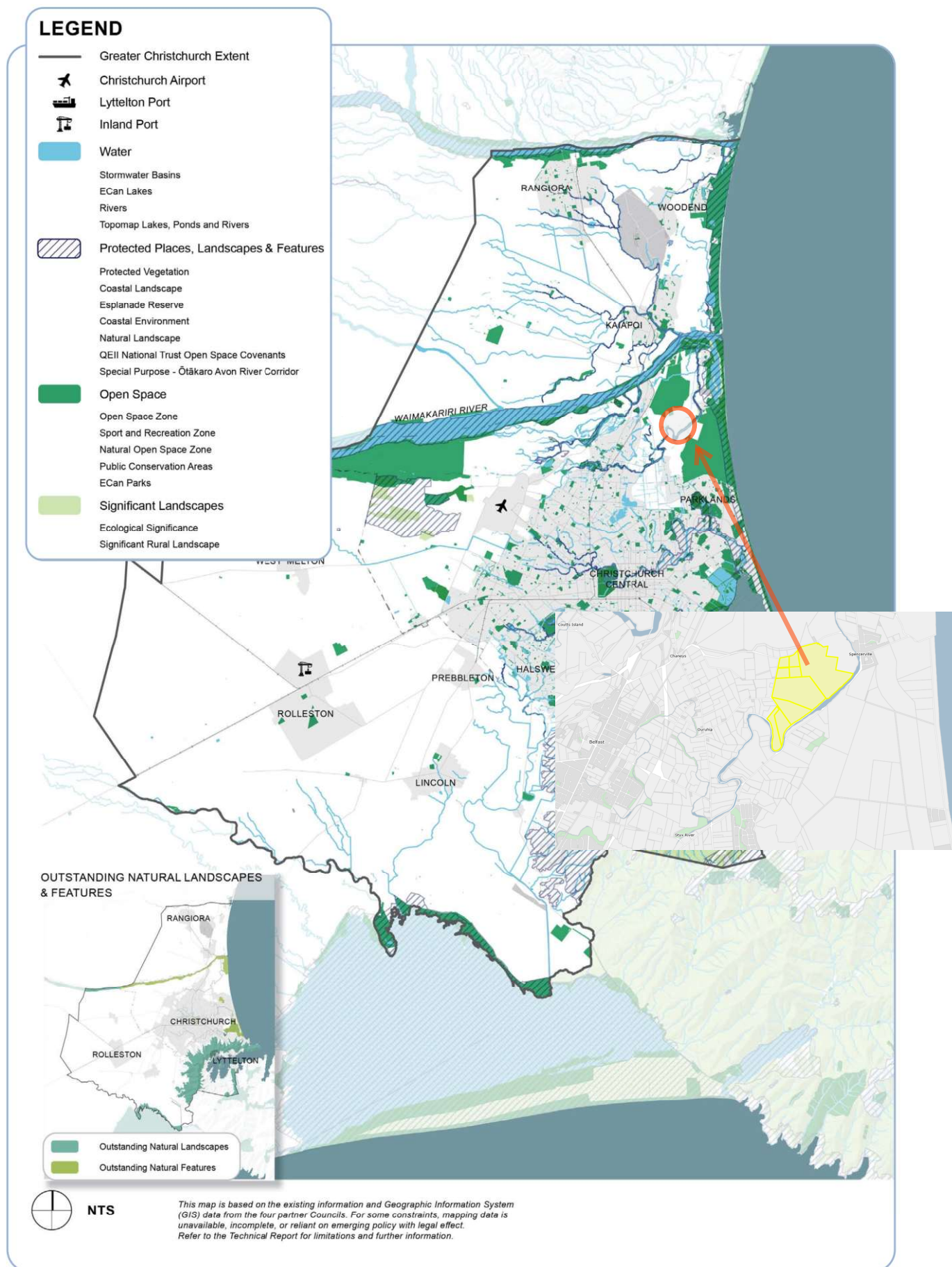
Map 9: Key Strategic Infrastructure



The noise contours relating to Christchurch International Airport as shown on Map 9 represent the contours operative in the Canterbury Regional Policy Statement 2013. As part of the review of the Canterbury Regional Policy Statement, an update of the airport noise contours was completed by Christchurch International Airport Limited and independently peer reviewed by a panel of experts appointed by the Regional Council. In June 2023

a final set of remodelled air noise contours was made publicly available in a report published by Christchurch International Airport Limited. The updated noise contours will be a key input to the review of the Regional Policy Statement, and this is the process by which changes to the spatial extent of the operative contours and the associated policy framework will be considered.

Map 10: Environmental areas and features



3.3 Enhance and expand the network of green spaces

Indigenous biodiversity is important to the environment, culture, society and economy of Greater Christchurch. For Māori, the connection with nature is one of whakapapa.

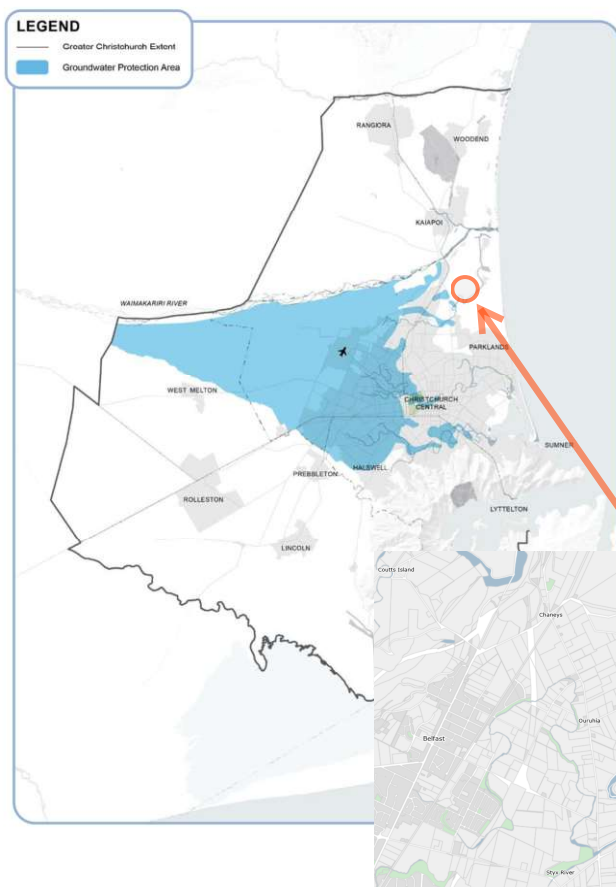
An enhanced and expanded network of green spaces will improve biodiversity, support access and connectivity, and promote active travel. The vision is that every centre and town is connected to another via a green corridor. Opportunities to improve green connections include creating new green spaces; planting along waterways, streets and major transport routes; growing urban forests; and integrating public green spaces into major development projects. Creating stronger links to the Port Hills and Te Pātaka a Rākaihautū / Banks Peninsula is a particular opportunity to support increased biodiversity.

Peninsula is a particular opportunity to support increased biodiversity.

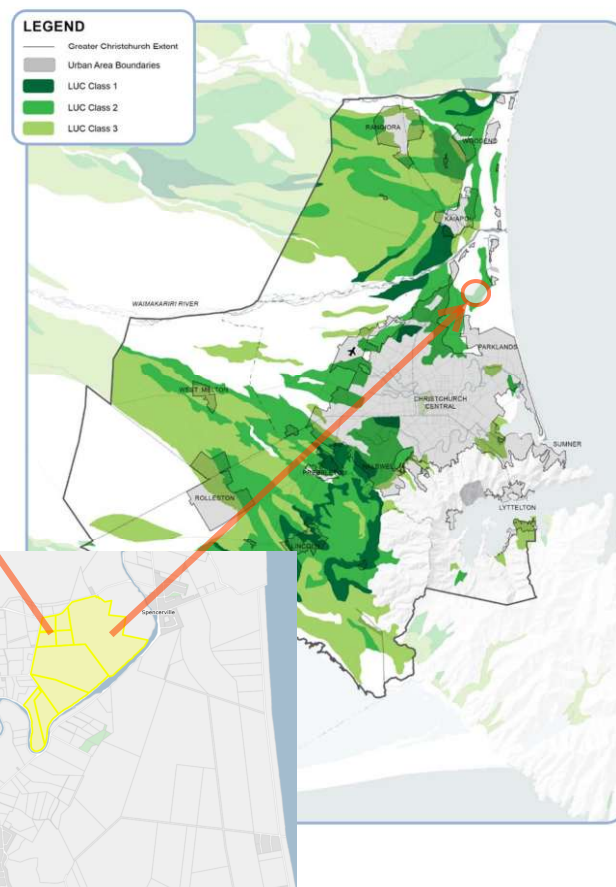
Improving the quality of the environment in existing and proposed higher density areas is critical. This can be achieved by designing and integrating vegetation (particularly trees) and indigenous biodiversity into these areas through enhanced streetscapes, parks and other public spaces, and with green spaces incorporated into private developments.

It is important that green spaces within our urban environments can be enjoyed by people of all ages and abilities, including through inclusive design and the application of universal design standards.

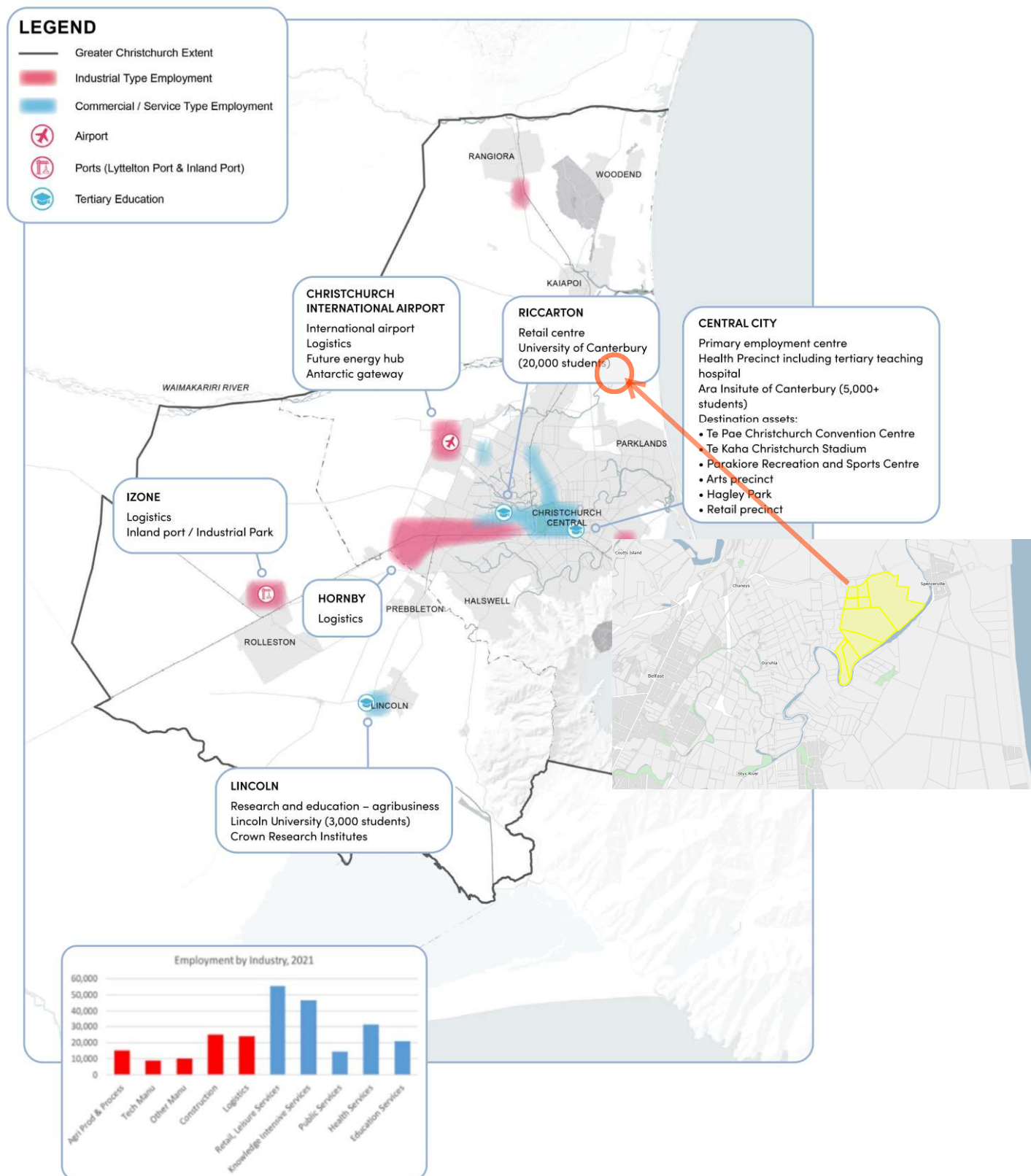
Map 11: Groundwater protection zone



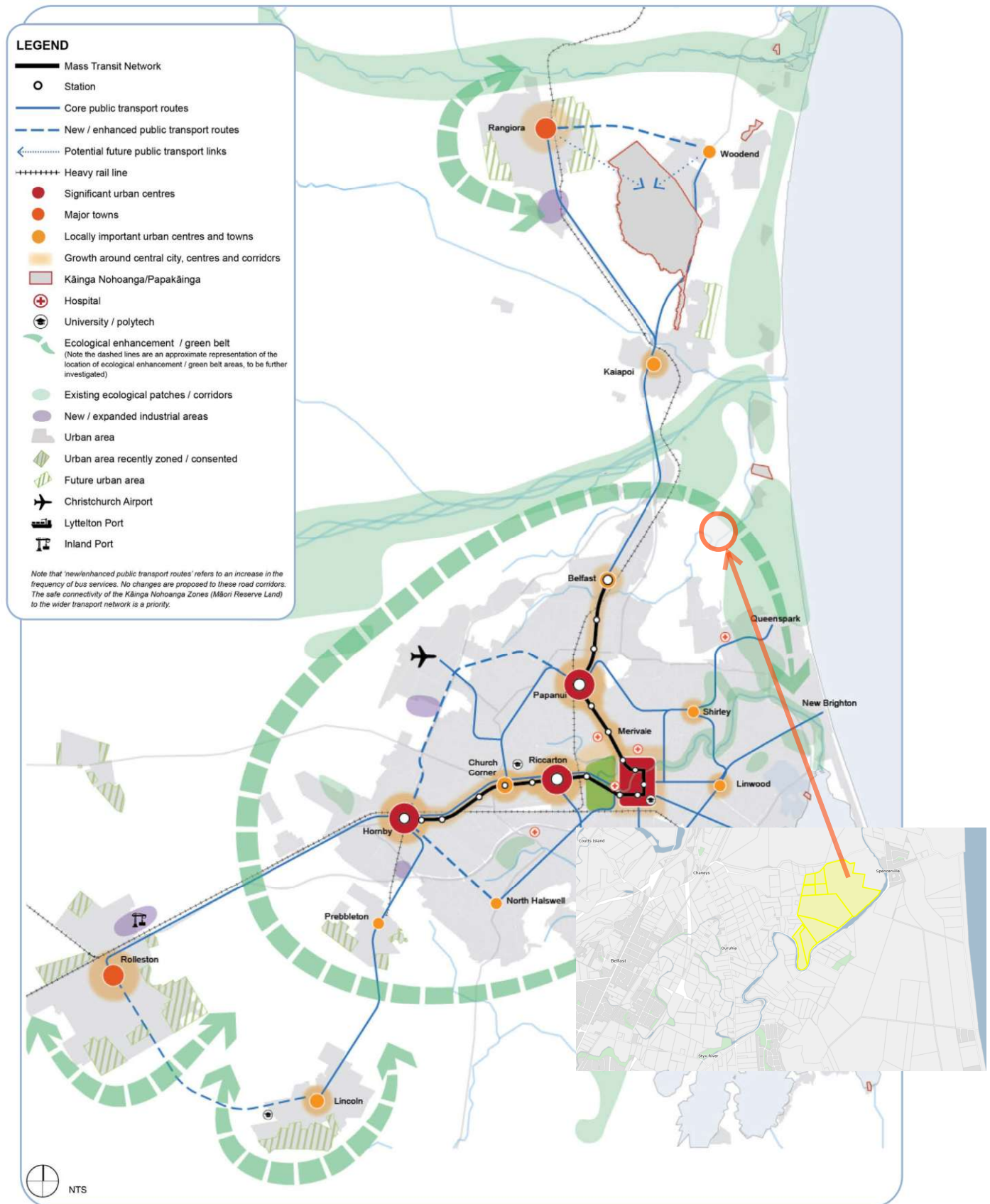
Map 12: Land Use Capability Class 1-3 soils



Map 13: Key employment areas and economic assets

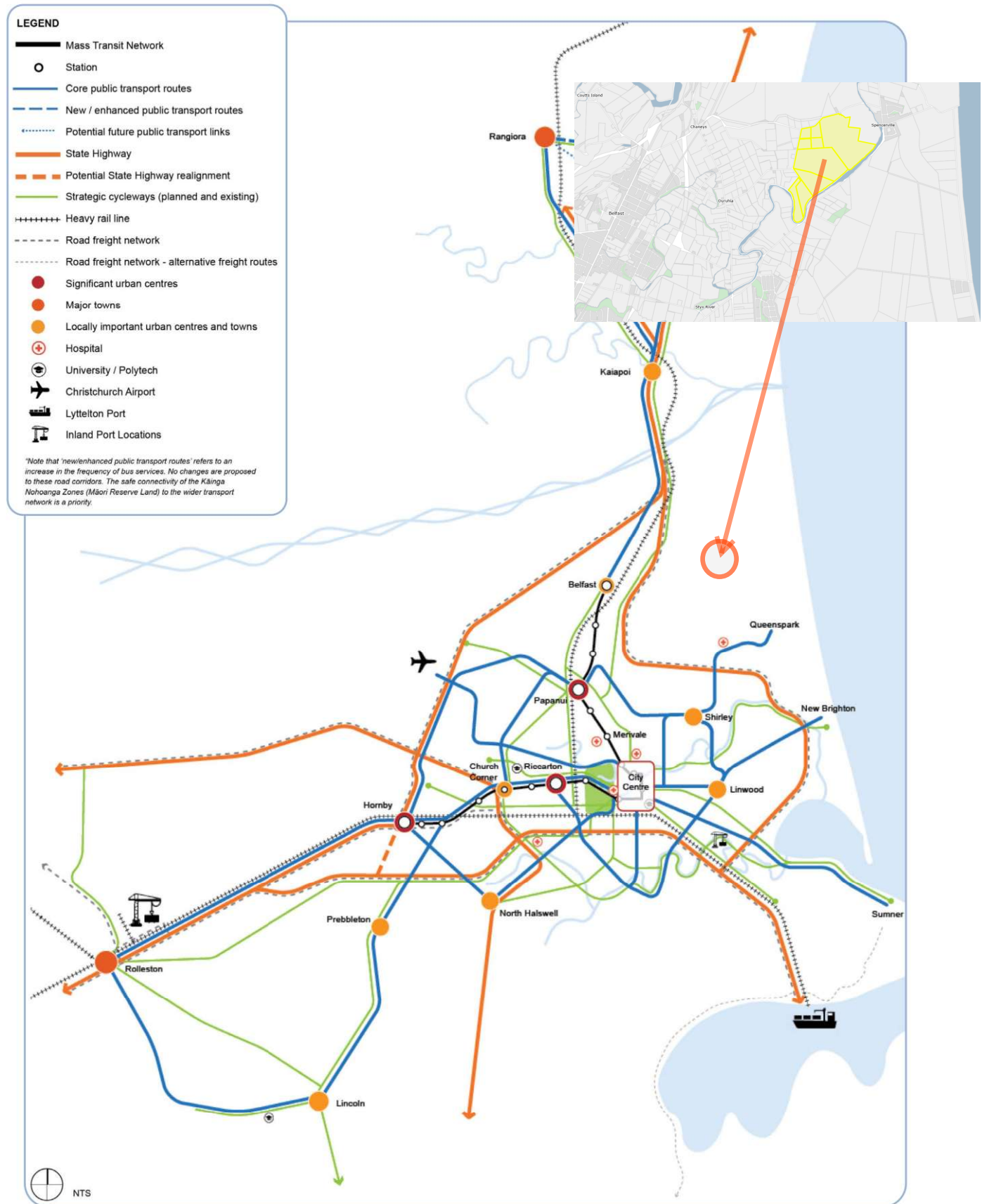


Map 14: Broad locations of housing and business development capacity (700,000 people)⁶



6. Refer to earlier footnote on page 37 for definition of 'broad'.

Map 15: Transport network



ATTACHMENT 3

Mr Grant Smith Evidence Transportation

**BEFORE INDEPENDENT HEARING
COMMISSIONERS IN CHRISTCHURCH**

IN THE MATTER

of the Resource Management Act 1991

AND

IN THE MATTER

of the hearing of submissions on

Private Plan Change 23: Whisper Creek,
Spencerville to the Christchurch City Plan.

STATEMENT OF PRIMARY EVIDENCE OF
MICHAEL GRANT SMITH

On behalf of the

OURUHIA RESIDENTS GROUP

Dated 12 May 2026

Executive Summary

1. My full name is Michael Grant Smith. I am a director of Hollyford Consulting, a specialist Transport Planning Consultancy
2. I have prepared this statement of evidence at the request of the Ouruhia Residents Group in respect of a proposal to include Private Plan Change 23 Whisper Creek, Spencerville into the Christchurch District Plan (PPC23)
3. My evidence focuses on traffic and transportation matters.
4. I have reviewed the Application, the Integrated Transportation Assessment (ITA) prepared by Novo Group, including a modelling report prepared by QTP, the evidence of David Smith on behalf of the Council, and that of Nick Fuller on behalf of the Applicant.
5. I **conclude** that the transport modelling on which the ITA relies is deficient and that PPC23 has been prepared with no regard to the existing and planned road hierarchy.
6. I **recommend** that the application be declined.

Introduction

7. My full name is Michael Grant Smith. I am the director of Hollyford Consulting Limited, a specialist transport planning consultancy. I have been in this position for almost 2 years.
8. I have prepared this statement of evidence at the request of the Ouruhia Residents Group in respect of matters arising from the Submissions and evidence prepared for Private Plan Change 23 (PPC23) Whisper Creek, Spencerville to the Christchurch District Plan.
9. Before preparing this evidence, I have
 - a. Reviewed the following documents
 - i. Integrated Transportation Assessment (ITA) prepared by Novo group dated 16 April 2025 (Section 32 Appendix E).
 - ii. Traffic Network Effects Modelling Technical Report prepared by QTP in March 2025 and attached as an appendix to the ITA
 - iii. The Statement of primary evidence prepared by David Smith on behalf of the Christchurch City Council. (Section 42A Appendix 11)
 - iv. Evidence of Nick Fuller (5 May 2026)
 - b. Undertaken a site visit on the morning of Sunday 3 May 2026 where I drove over the network between Marshland Road and Spencerville including Spencerville Road, Lower Styx Road, Turners Road and Teapes Road in order to refresh my memory of the roads in the area and the changes that have occurred in recent years.

Qualifications and experience



10. I hold a Bachelor of Engineering (Civil) degree from the University of Canterbury. I am a Chartered Engineer (UK), a Fellow of Engineering New Zealand (FEngNZ) and a Member of the Institution of Civil Engineers (MICE). I am a member of the Engineering NZ Transport technical group and of the NZ Modelling User Group (NZMUGS) subgroup of the Transportation Group.
11. I have practiced as an engineer for over 50 years, starting in the UK in 1973 and on returning to New Zealand in 1975 to join Gabites Porter, initially as a transport planner and from 1992 as the sole director and shareholder. In 2013, I sold Gabites Porter to Traffic Design Group, who, in turn were acquired by Stantec in 2018. I was a Market Sector Leader with Stantec from then until 2024. I left Stantec in July 2024 to form Hollyford Consulting.
12. Prior to joining Stantec, I have provided expert transport planning and traffic engineering evidence at numerous local authority and Environment Court hearings, with my first (from memory) being before the Planning Tribunal in Timaru in 1985. While at Stantec I concentrated on transport modelling projects, but since leaving, I have been involved with several projects under the fast-track legislation in Queenstown and Hamilton. Over the years, I have worked with almost every local authority in New Zealand, many on the eastern coast of Australia, and on projects in Malaysia, South Africa, Hong Kong and Bhutan.

Code of Conduct

13. Although this is not an Environment Court hearing, I have read the Code of Conduct for Expert Witnesses included in the Environment Court Practice Note 2023 and agree to comply with it. Except where I state that I rely on the evidence of another person, I confirm that the issues addressed in this statement of evidence are within my area of expertise, and I have not omitted to consider material facts known to me that might alter or detract from my expressed opinions.

Scope

14. This statement of evidence covers the following matters
- a. A discussion on the Roding Hierarchy in the Spencerville area
 - b. A review of the Integrated Transport Assessment prepared by Novo Group
 - c. A review of the transport modelling report prepared by QTP
 - d. A review of the Section 42A Report Appendix 11 Transport (primary evidence of David Smith (20 April 2026))
 - e. A brief review of the evidence of Nick Fuller for the applicant
 - f. Development Construction effects

The Roding Hierarchy

15. When the existing zoning was proposed as Plan Change 45, the Commissioner's decision noted

The principal entrance to the complex will be from Lower Styx Road by way of a new bridge over the river...

and

Lower Styx Rd., a minor arterial in the City hierarchy, is likely to carry about 5000 vpd following development but even then will be operating at the lower end of its plan category. Presently the road is not formed to minor arterial standards, although room exists within the road reserve to enable that to occur. It is likely that upgrading work will be required. Similarly that part of Spencerville Rd. as lies between Turners and Lower Styx Roads may rise to about 1300 vpd placing it in the middle of the range expected for the relevant category of collector roads.

16. At that time (2010) Lower Styx Road was classified as a Minor Arterial Road, Spencerville as a collector Road, and Marshland Road as a Major Arterial Road. Since the opening of the Christchurch Northern Corridor motorway in December 2020, Marshland Road was downgraded to a Minor Arterial, and Lower Styx Road to a Collector – presumably in recognition of the relatively low traffic flows expected with the golf course zoning. Figure 1 shows the current Road hierarchy on the area.

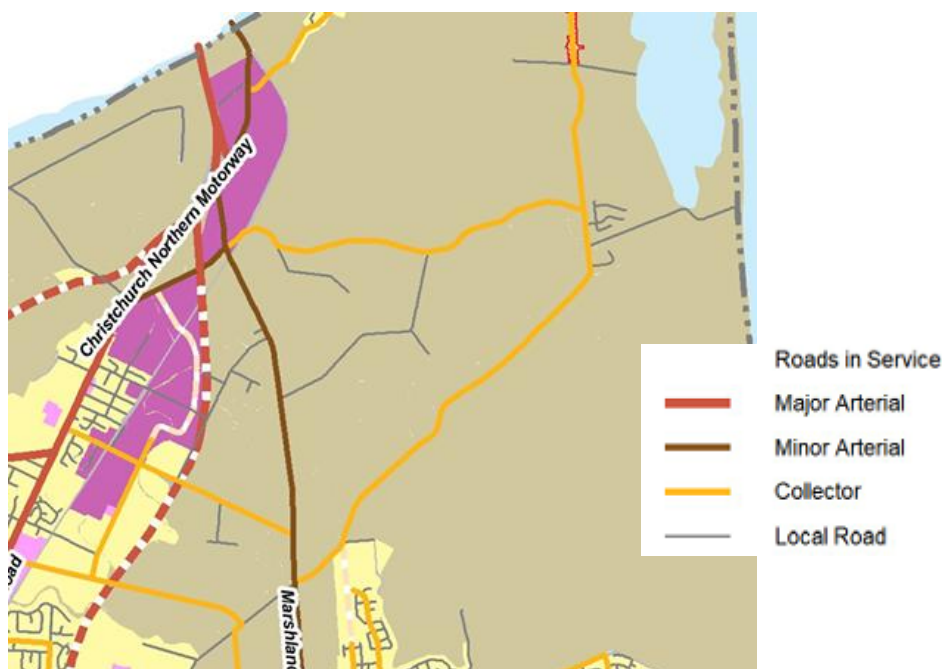


Figure 1 – Spencerville area road Hierarchy (extracted from the CCC District Plan)

17. The District Plan include the following description of the levels

Minor Arterial Roads (Marshland Road)

Roads that provide connections between major arterial roads and the major rural, suburban and industrial areas and commercial centres. Generally, these roads cater for trips of intermediate length. They will generally connect to other minor arterial roads and major arterial roads and

to collector roads. Arterial roads provide the most important movement function and as such require the highest degree of movement function protection. They may also define the boundaries of neighbourhood areas.

Collector Roads (Lower Styx Road)

Roads that distribute and collect local traffic between neighbourhood areas and the arterial road network. These are of little or no regional significance, except for the loads they place on the arterial road network. They link to the arterial road network and act as local spine roads, and often as bus routes within neighbourhoods, but generally do not contain traffic signals. Their traffic movement function must be balanced against the significant property access function which they provide.

Local Roads (Turners Road, Teapes Road)

These roads function almost entirely for access purposes and are not intended to act as through routes for motor vehicles

18. An earlier version of the District Plan included a description of the performance expected of the various levels of the Hierarchy. I have not been able to find a similar table in the current plan, but the principles do not change.

Christchurch City Council – City Plan (a ‘proposed district plan’ as at August 2001)

Appendix 2 – Rooding hierarchy standards												
Road classification (refer to Appendix 3)	Typical total daily traffic flows (VPD)	Road widths (m)		Roadway widths (m)		Minimum lanes	Number of Footpaths	Median	Amenity strip	Parking	Cycle facilities	Access controls
		Minimum	Maximum	Minimum	Maximum							
Major arterial – Urban	>12,000	30	40	24	34	4	2	Yes	Yes	Yes	Yes	Yes
Major arterial – Rural	>10,000	40	50	30	34	4	No	Yes	Yes	Yes	Yes	Yes
Minor arterial – Urban	3,000 to 15,000	20	30	14	22	2	2	*	Yes	Yes	Yes	Yes
Minor arterial – Rural	2,000 to 12,000	20	30	12	22	2	No	*	No	Yes	Yes	(1)
Collector – Urban	1,000 to 6,000	18	20	12	14	2	2	No	Yes	Yes	*	*
Collector – Rural	100 to 2,500	18	20	9	14	2	No	No	No	Yes	*	No
Local – Business	–	18	20	12	14	2	1	No	No	Yes	*	No
Local – Urban	>250	14	20	9	14	2	2	No	Yes	Yes	*	No
Local – Urban	<250	12	18	8 7.5	12	2	1	No	Yes	Yes	*	No
Local – Rural	<250	16	20	7	14	2	No	No	Yes	Yes	*	No

Clarification of standards

- Where the road width and/or standard of construction requires road widening, the Council may initiate purchase or designation procedures as required.
- "Yes" means that the provision of those facilities shall be incorporated into the design and construction of the road.
- * means that the provision of those facilities is allowed for in the standards for road design and construction and/or shall be considered as conditions of consent on subdivision roading under Clause 5.2 of these rules.
- Amenity strips shall only be required on rural roads where these adjoin a Living Zone.
- (1) indicates that adequate spacing will be required between high traffic generators.
- For the purposes of calculating "Typical total daily traffic flows (VPD)" on local roads, the minimum vacant allotment size for the respective zone shall determine the number of household units, which in turn will be deemed to generate 10 vehicle movements per day.
- Local hillside roads (on any part of a zone on the slopes of the Port Hills) may only require one footpath.
- Some localised road widening may be required at intersections to increase capacity.
- The minimum diameter for a cul-de-sac turning head is:
Residential 25 metres
Residential 30 metres

19. A rural local road is expected to carry less than 250vpd, a rural collector between 100 and 2,500vpd, and a minor arterial between 2,000 and 12,000vpd. Currently, as far as I can tell from the documents, Marshland Road is carrying around 8,200vpd, Lower Styx 1600-2000vpd, Spencerville 500 to 1000vpd, and Turners 220-800¹vpd, meaning that all are operating with expected levels.
20. Hierarchies are included in District Plans for a reason. They exist to give residents confidence in the likely future operation of their surrounding network. In my view, residents

¹ The figure of 800vpd seems high but it is likely to be a count taken near the school and reflects the specific generating characteristics of the school.

should be able to rely on the hierarchy and the likely traffic levels when making lifestyle and locational decisions, and proposed developments should be cognisant that these are the policy positions of Council.

21. It is interesting to note that the traffic generation of the golf course zoning (as calculated in the ITA) is 3,700 per day of which (according to the PC45 decision) 2,500vpd would use Lower Styx Road. That flow added to the existing traffic would produce a flow on Lower Styx Road of around 5,000vpd which brings into question the Council decision to reclassify the road as a Collector. In my view it should have been retained as a Minor Arterial.

The Integrated Transport Assessment

22. There is little point in summarising the ITA – that has been well canvassed by others. What is worth saying is that the whole design of the proposal has been based on the premise that it is appropriate to access an 800-lot subdivision and a Neighbourhood Commercial Centre primarily from a local rural road. In my view it is not appropriate – and incidentally I came to that view before I had any conversations with the submitters. In the following paragraphs I will deal with specific issues that I have with the ITA in the order that they appear.

The ITA has identified 24 crashes between 2020 and 2025, of which only 5 involved minor injuries, with no fatalities and no serious injury crashes. I have looked at crash data (as shown in Figure 3) from 2021-2026 and have identified three serious crashes in 2025 – one on Marshland near Turners, one the Turners/ Teapes corner, and one on Spencerville Road near Farrells. Anecdotally, the residents note that there have been several more crashes at the Turners/Teapes corner that have gone unreported. This is a relatively high rate given the very low traffic flow on Turners Road. In addition, there were fourteen minor injury crashes in the period with six on Marshland, five on Spencerville (with one at the rail crossing) and three on Lower Styx Road. There were also 18 non-injury crashes. Accordingly, the ITA may be giving a misleading picture.

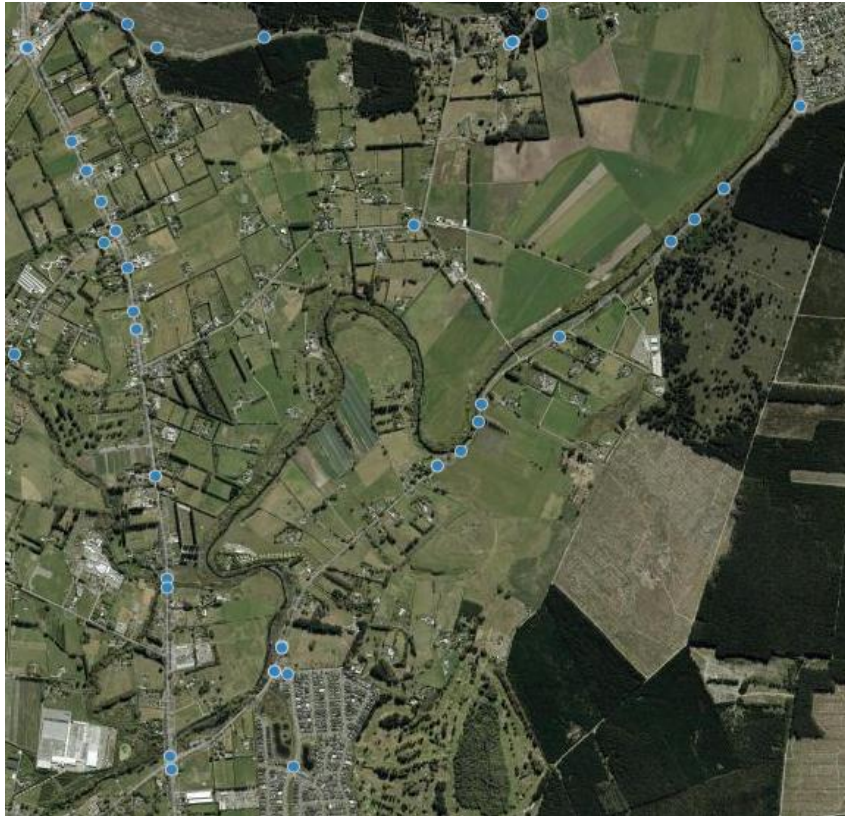


Figure 3 – Crash locations 2021-2026 (from NZTA open data portal)

23. If the Commissioner is minded to approve the Plan Change, then I would suggest that a road safety audit is carried out at each stage of the project – namely consenting, detailed design, construction and post construction.
24. I accept the trip generation calculations in the ITA as being within the generally accepted ranges and the application of these within the QTP modelling report. However, these rates inherently assume a degree of public transport service. Even if the level of service described in the report eventuated, the current and probable future timetable is an hourly frequency, which to my mind is almost equivalent to no service. The generation could be 10-15% higher than that adopted in the ITA.
25. Much of the ITA relies on the QTP modelling report, and I will comment on that later in this evidence.
26. The ITA covers the way in which intersections might be arranged given the proposed access positions. I am satisfied that there is sufficient space for these to be designed to the appropriate standards.
27. However, if the proposed development is approved, then Turners Road will be expected to carry 62% of the daily generation of 6,250vpd – or almost 4,000vpd, and would logically need to be reclassified at least as a collector road, but more probably as a minor arterial. In that case it would need two 3.5m lanes for traffic, two 1.0m shoulders and two 1.5m lanes

for cyclists – a total sealed width of 12m. If there is to be any frontage development onto Turners Road, then a further 3m would be needed for parking (including the shoulders).

28. David Smith, in his evidence has dealt with walking and cycling issues, and I defer to that analysis. I would add that, wherever possible, the cycle lanes and pedestrian footpaths should be physically separated from the main carriageway.
29. In summary, the ITA has described the impacts of a development that is totally inappropriate for that part of the network that it has access to. It has failed to address the alternative where the access is predominantly served by Lower Styx Road as is the case with the current Golf Course zoning. This alternative would address many of the issues that I have raised and others which have been identified by submitters.

Review of the QTP Modelling Report.

30. I have a number of concerns about the modelling which I address below in no particular order, but before I do, the flow pattern as reported intuitively looks sensible. It may well be that my concerns are to do with reporting rather than the technical analysis undertaken by QTP.
31. The CAST model uses Saturn modelling software, which means the trip generation and the origins and destinations of the development trips need to be derived exogenously. The report states:
- The initial estimate of travel demands for the CAST model come from the parent Christchurch Transportation Model (CTM) which uses demographic inputs as the basis of estimating travel demands in Greater Christchurch. (Section 3.1.1)*
32. I take this to mean the base demands used in the model vs count comparisons contained in the section 3. The trip generation has been accepted from the ITA but the origins and destinations of trips to and from the development have been assumed to be the same as those from the existing Spencerville settlement (section 4.1.1). While this is a pragmatic technique, it assumes that the new subdivision will have exactly the same characteristics as the houses that are already in Spencerville – car ownership, socio-economic groups, household size, family makeup-etc. In my view that is most unlikely. The development should have first been included in the CTM and the demands from it passed down into CAST
33. The model has used 2018 as the base year with local area validation checks which is standard practice. My concern is that land use activity and the transport infrastructure have changed significantly between then and 2026. The modellers have recognised this by ‘forecasting’ from 2018 to 2021 and checking flows against 2021 counts, on the basis that

The previous model update, v21 was completed in 2021, with the model base year being 2018. This was the last census year for which demographic data is presently available. (Section 3.1.1)

34. That statement is not correct. The 2023 Census data was available in November 2024 and could have been incorporated into a 2023 model update, prior to preparation of the ITA in March/April 2025.
35. Using 2021 as a validation base is fraught with difficulty. The disruptive effects of Covid in 2020 continued well into 2021 and 2022. My experience with model proving in both New Zealand and Australia is the travel patterns and traffic counts in those years are unreliable and should not be used as confirmation that a model is fit for purpose.
36. Secondly, when the model didn't fit well, QTP has used matrix estimation techniques to 'improve' the fit. This is a process by which the travel demand matrix (specific OD pairs) is modified to match the counts. This is a process which I believe should only be used as a diagnostic tool as it destroys the forecasting ability of the model. In this case, with significant questions on the counts, it should not be used. It is quite possible that more confidence can be placed on the base 2021 model than that which has been modified to match questionable counts.
37. Thirdly, the report then compares the 2021 modified model flows against the flows that were used to modify it as 'proof' that the model is validated. This is a circular process and merely serves to confirm that the matrix estimation algorithm built into Saturn is doing what it should.
38. Even if the 2021 counts were reliable, the 2018 model should have had the matrix estimation changes applied to it and the validation process repeated at 2018 to confirm that the modified model provided a better fit and could be used in a forecasting mode to 2038.
39. This raises the issue as to how a matrix estimated model can be used in forecasting. The QTP report simply says

For the purpose of this study, the 2038 base model is the v23 generic 2038 model, with the network and zonal demands subsequently refined as described above for 2021 (including the zone splitting and matrix estimation changes). (section 3.6.1)

40. The report needs to answer two questions – namely 'what is the rationale for using 2038 rather than some other future year' and 'how were the matrix estimation changes applied?'
41. As a (probably) minor point – the report says

For the AM peak period, the 07:30-08:30 time-slice was adopted as a basis of more robust assessment than the traditional 08:00-09:00 peak hour modelled for central Christchurch due to higher counts and modelled flows on Marshland Road during this period. (section 1.9)

but the reporting is for the 08:00 to 09:00 hour. Is that just a mislabel or have the model flows from 07:30 to 08:30 been compared against 08:00 to 09:00 counts?

42. The Model has not included any consideration of the commercial land use, stating as justification:

We note that the subdivision plan includes for a limited amount (around 1.5 ha) of commercial activities. It is anticipated that this would service the proposed residential subdivision, rather than forming a destination for trips from other residential areas. (Section 4.2.2)

With respect, this completely misunderstands the real world. There are no commercial activities currently available for the Spencerville residents. A commercial centre of 1.5ha could have 5,000 – 7,500m² of GFA – typically containing a small supermarket, possibly a restaurant or café and supporting retail. Typically, a centre such as this would be expected to generate around 7 trips/100m² in the evening peak hour or 50-60 trips /100m² per day which would equate to around 300-500 trips per hour, or a further 2,500-3000 trips per day.

43. Given that the nearest supermarket is at Preston's Road, around 6km away, these shops will be very attractive to both the development and Spencerville residents, and the centre needs to be included in the model.
44. Finally, the modelling has made the same assumptions as the ITA and the application – namely that there will be no access to Lower Styx Road. The option of using Lower Styx should have been explored and analysed.

Review of the Section 42A Report Appendix 11

45. In general, I agree with the points made by David Smith in his primary statement of evidence, but would comment as follows

46. In paragraph 30, Mr Smith says

I have reviewed the traffic modelling presented in the ITA and have concluded that this is generally undertaken in line with best practice.

For the reasons discussed above in paragraphs 30 to 44, I do not agree with this statement. The modelling may be current practice in Christchurch, but it is certainly not best practice.

47. In paragraph 35 Mr Smith discusses the one-way bridge on Spencerville Road concluding that it is not clear what effect the proposed Commercial activity will have on traffic on the bridge. I agree with these comments and believe that the commercial land use should be included in the model, the effects established, and a conclusion formed as to whether the bridge should be widened. Access to Lower Styx Road is unlikely to have much, if any effect on the Spencerville bridge, but again that should be assessed using the model.

48. I agree with Mr Smith when he concludes that he is unable to support the proposal in its present form.

Review of evidence of Nick Fuller (5 May 2026)

49. Mr Fuller's evidence is largely in response to David Smith's evidence provided as part of the Section 42A report and as such I have little comment on it. Mr Smith can advise whether it meets his concerns. It does little if anything to address the issue I have raised in the preceding paragraphs. I comment further in the following paragraphs.

50. In paragraphs 49 to 53 Mr Fuller discusses the suggestion of an access to Lower Styx Road via a bridge across the Styx River and gives an opinion on the way traffic might re-route as a result in Paragraph 50 – an opinion that I largely agree with – but which would benefit from testing through the model.

51. When considering the function and form of the network, I do not agree that the bridge is not required. If a bridge was considered necessary for the current zoning with a significantly lower traffic generation, then it is difficult to see why it is not necessary to support the present application.

52. In paragraph 83, Mr Fuller addresses the one lane bridge on Spencerville Road quoting the 2018 census of 162 households. I have looked at the Stats NZ data for the 2023 Census which shows 267 in the Spencerville area² and a further 393 in the wider Ouruhia area³. The catchment for the Commercial activity is much larger than that assumed by Mr Fuller. The point is also illustrated by Mr Fuller's diagram showing accessibility to Activity centres by car and cycle as being very poor for the whole of the Spencerville/Ouruhia area. As noted above, the commercial centre needs to be in the model and the CTM used to analyse demand. The demand/capacity of the bridge will be an output of that analysis.

53. Finally, I would comment on the analysis discussed in Paragraph 74 of Mr Fuller's statement. I don't agree that Level of Service 'F' is ever acceptable. It runs the risk of driver frustration and poor decisions leading to an increased safety risk at an intersection which, by Mr Smith's analysis, already has a poor safety record.

Traffic effects during site development

54. The application in Appendix B – Infrastructure notes that there will be 260,000 m³ of fill required, but it is not clear whether this will come from cut on site, or trucked in. If it is

² SA2 317100

³ SA2 317201

trucked in that would entail some 10,000 truck and trailer loads (20,000 movements) or roughly twice that if just a truck were used.

55. With no access to Lower Styx Road, these movements would need to access the site from Spencerville Road, or Turners Road. Trucks drivers do not like the railway crossing at Spencerville Road. They prefer to avoid this route because of the entry and departure angles of the railway crossing that is so steep they can get their tow bars hitting the ground. Turners Road will be the preferred access, and it will rapidly fail with that level of loading. This is an aspect that needs to be addressed prior to any approval being given. It is another argument for the Lower Styx access.

Summary

56. The proposed plan change has been prepared with no regard given to the existing and planned road hierarchy in the area. Turners Road – a local rural road is expected to serve as the primary access route for the development, both during construction and after the development is completed. It has completely ignored the option of providing access to Lower Styx Road – a road much more suited to the expected traffic and which connects to the arterial network using the signalised intersection at Marshland Road.
57. The proposed plan change should not be approved unless there is no access to Turners Road, and Lower Styx Road used as the primary access. In that event, Lower Styx Road should be reclassified to its earlier status as a Minor Arterial Road.
58. In my view, the modelling that the proposed plan relies on is deficient in that
- a. The model proving should be based on using the 2023 census data and checked against 2023 traffic counts.
 - b. Matrix estimation should not be used except as a diagnostic tool
 - c. The modelling does not take into account traffic which will be generated by the Retail Centre
 - d. The distribution of traffic is based on an assumption by the analyst rather than being calculated through the CTM.
 - e. There has been no analysis of the use of Lower Syx Road as the primary access, nor a comparative analysis of that against using Turners Road as the access.
59. Once the Retail Centre is included in the modelling, the function of the one-lane bridge on Spencerville Road needs to be revisited.

Conclusion

60. In my view, the Proposed Plan Change should be declined in its present form.



Grant Smith
12 May 2026

AS

ATTACHMENT 4

Tracked changes – Proposed Amendments to CDP

APPENDIX 2

APPENDIX 2 - PPC23 - DISTRICT PLAN TEXT AMENDMENTS WITH RECOMMENDED CHANGES IN RESPONSE TO S42A REPORT

As a result of the evidence provided by the Applicant's discipline experts in response to the S42A report, some amendments to the District Plan provisions are recommended, utilising the S42A version as the base.

It is noted that the S42 A report did not propose any amendments to the changes sought by PC23 to the Whisper Creek Specific Purpose Zone (Chapter 13 Specific Purpose Zone and Chapter 8 Subdivision) or to introduce the activity standard (new Chapter 8 activity standard 8.6.11) and area-specific permitted activity rule (new Chapter 14 area-specific permitted activity 14.4.3.1.1) to manage the Neighbourhood Centre.

The following lists the proposed ODP narrative in full. Amendments proposed by the Plan Change as notified are shown as underlined or text. **Changes that were recommended in the S42A report and that are agreed are shown in green.** Where the S42A amendments are not agreed, or where alternative wording is provided in response to the matters raised in the S42A report, these are shown in **blue**.

Where changes are substantive, they are accompanied by a brief 'comments box' to provide the rationale/ origin of the change.

Changes shown in red attributed to Anna Carter (planning expert for Ōuruhia Residents Group). These changes are only proposed should the Hearing Commissioner consider recommending changes to the District Plan.

8.10 Appendices

Add a new Outline Development Plan and associated narrative as Appendix 8.10.31.

Amend the ODP plan to record the following recommended changes:

1. Provide pedestrian and cycle corridor connecting the site between Teapes Road and Ōuruhia School via Turners Road and to Spencerville via Spencerville Road.
2. Provide for ~~a-vehicular~~, pedestrian and cycle corridor connecting the site to the intersection of Lower Styx Road and Spencerville Road.
3. Provide three additional pedestrian and cycle connections from the site to Turners Road and Spencerville Road from the proposed internal Collector Road near the Teapes Road intersection to the Pūharakekenui-Styx River riparian margin.
4. Provide for a more direct pedestrian and cycle connection from the amended location of the Neighbourhood Centre to the Neighbourhood Parks.
5. Clearly identify the extent of the Residential New Neighbour zoning to extend to the top of the contour defining the upper and lower terrace excluding the stormwater basins (shown in orange on the ODP).

APPENDIX 2

- 4.6. Clearly identify the extent of the Rural Urban Fringe Zone to include the stormwater basins (shown in teal on the ODP) and all Flood Hazard Management Areas.

8.10.31.A CONTEXT

- a. This area to the north east of Christchurch lies to the north of the Pūharakekenui-Styx River, one of the primary natural features of Christchurch. Prior to European settlement, the extensive wetlands and easy access to the sea made the Pūharakekenui-Styx an important area for mahinga kai (food gathering) and for the cultivation and harvesting of flax. The Pūharakekenui-Styx River forms part of the southern and eastern boundary of the neighbourhood. Surrounding areas are utilised for a mix of larger farms and smaller rural lifestyle blocks. Chaney's Forest is to the north, Bottle Lake Forest and Spencerville are to the east, and the existing residential area and associated commercial centre of Prestons is located approximately 2km to the south.

8.10.31.B GUIDANCE

- a. Guidance on the means to achieve the development requirements and form and design elements is provided within the Christchurch City Council's Creating New Neighbourhood Design Guide.

8.10.31.C DEVELOPMENT FORM AND DESIGN

- a. The following design elements and features are relevant considerations in exercising control over the matters in 8.7.1 - 8.7.4 or the matters for discretion in 8.8. They are not requirements for the purposes of Rule 8.6.11(a) or Rule 14.12.2.16.
1. The main features of this area will be the Pūharakekenui-Styx River and a large open space area located on a lower terrace between the residential development area and the river margins.
 2. Where the RNN abuts or is opposite properties in the Rural Urban Fringe Zone larger section sizes are anticipated, with planting buffers and building setbacks along the area's external road edges with Teapes Road, Turners Road, and Spencerville Road.
 3. Higher densities are appropriate in adjacent to open space areas and/or the proposed neighbourhood centre, and active and public transport routes.
 4. The total yield shall not exceed 800 households within the RNN zone.
 5. Any development within the RNN zone shall be consistent with the available volume of potable water and/or the capacity of the wastewater network that form part of the supporting infrastructure to service the proposed development within the site.
 3. —
 4. The total yield shall not exceed 800 households consistent with the available volume of potable water and capacity of the local pressure wastewater network that form part of the supporting infrastructure to service the site.

Commented [AC1]: Retain this statement

APPENDIX 2

- 5-6. Pedestrian and cycle links are to be provided to link the site to local schools, Prestons, Bottle Lake Forest, and along the Pūharakekenui-Styx River corridor.
- 6-7. The character is that of an urban village set within a rural context, including the provision of a coherent ~~design layout including~~ landmark buildings and features, centrally located publicly accessible open space, meaningful, while providing for a diversity of residential building scales, types and styles in site size, building typologies and height, which promote visual interest, choice and opportunity for home based business that serve the needs of the community.

APPENDIX 2

8.10.31.D DEVELOPMENT REQUIREMENTS

- a. The development requirements for the purposes of Rule 8.6.11(a) and Rule 14.12.2.16 are described below and are shown on the accompanying plan.

1. INTEGRATION

- a. There are several landowners within this ODP area and a number of existing properties. Subdivision designs are to demonstrate good connectivity between different land ownership areas through road, open space, pedestrian and cycle links.

b. The development is to provide new road access connections and shared paths to Lower Styx Road, Teapes Road, Turners Road, and Spencerville Road. There is to be no direct vehicular access to Turners Road or Teapes Road.

b-c. The development is to provide new shared paths to Teapes Road, Turners Road, and Spencerville Road.

d. The total yield of the RNN zone shall not exceed 800 households.

e. unless it can be demonstrated that there is a sufficient consistent with the Any development within the RNN zone shall be consistent with the available volume of potable water and/or the capacity of the local pressure wastewater network that form part of the supporting infrastructure to service the proposed development within the site.

d-f. Where the RNN abuts or is opposite properties in the Rural Urban Fringe Zone and the Rural Waimakariri Zone, larger section sizes are anticipated required, including 60% of the lots with direct frontage adjoining to be a minimum of 1,000m² along Turners Road and Spencerville Road to be a minimum of 1,000m², with planting buffers and building setbacks along the area's external road edges the lots boundary with Teapes Road, Turners Road, and Spencerville Road.

e-g. Lots with frontage adjoining to Teapes Road, Turners Road, and Spencerville Road are not to obtain individual site access from these roads and shall instead obtain access from new internal roads until such time as the rural land opposite the Site is rezoned for urban activities. Open rural-style fencing is to be provided along these three external road frontages, with a 53m deep landscape strip within each allotment, and a 10m deep building setback (20m deep for any lots that are 1,000m² or larger) from the road boundary of the allotment. Trees planted within the landscape strip are to be maintained on an on-going basis. It is anticipated that these outcomes will be delivered via consent notices on the titles.

2. OPEN SPACE, RECREATION AND COMMUNITY FACILITIES

- a. Retention of the lower terrace as a large open space area that can be utilised for a combination of pedestrian and cycle links, recreation, ecological restoration, stormwater management, and farming.

Commented [JC2]: Exact alignment of capacity and demand is only possible once development and services are built. If it can be demonstrated that additional housing can be serviced then this should not be prevented by the ODP narrative. Existing subdivision rules ensure council can assess infrastructure capacity as part of any subdivision application.

Commented [AC3R2]: Capacity of the network is not the only reason to constrain overall densities. Other factors include a vehicular access to Lower Styx Road. Total yield should be a separate development requirement.

Commented [JC4]: Outcome is agreed. Wording tweaks to improve grammar and certainty

Commented [JC5]: In response to CCC landscape and UD evidence regarding the need to future-proof if land opposite urbanises in the future

APPENDIX 2

- b. Three neighbourhood parks that are each approximately 3,000m² in size are to be provided to ensure that most residential units are within 500m of a park where child play facilities can be located. Where appropriate, neighbourhood parks are to be co-located with stormwater basins.
- c. A Neighbourhood Centre is to be provided, where it is accessible within the residential catchment via pedestrian paths, provides a focal point for the community, and is viable. The Centre is to be commensurate with the role and function of a Neighbourhood Centre as set out in Policy 15.2.2.1 Tabel 12.1(E) and is to be no larger than 31,000m² GFA.
- d. The land identified for the Neighbourhood Centre is to be subject to a consent notice that retains the land for commercial or community development for 10 years following the centre lots receiving s224(c) certificates. If no neighbourhood centre activities are developed within 10 years of the 224(c) certificate being issued, then 2,000m² of the landthe land can be utilised for residential development but the remaining 1000m² must be retained for a neighbourhood centre activity.
- e. Continuation of the Pūharakekenui-Styx River 'Source to Sea' reserve network along the river corridor.
- f. Where a pedestrian and cycle pathway is denoted, it shall be located within a corridor of a width that provides for unimpeded, safe and efficient movement of cyclists and pedestrians.
- g. Pedestrian and cycle pathways are to be provided along the eastern and western edges of the site to connect the Development Area with the Pūharakekenui-Styx River margins.
- h. Mid-block pedestrian and cycle pathways shall connect the Development Area to Turners Road and Spencerville Road.
- i. A pedestrian and cycle pathway shall be provided to connect the site to ŌŌuruhia Model School via the Styx Loop Conservation Park and a short section of Turners Road.
- j. Pedestrian and cycle links shall be provided to connect the site between Teapes Road and Ōuruhia Model School via Turners Road and to Spencerville via Spencerville Road.
- k. A pedestrian and cycle pathway shall connect the site via a bridge to Lower Styx Road and then to the intersection of Lower Styx Road and Te Korari Street at the northern entrance to Prestons. A pedestrian and cycle link to Bottle Lake Forest is also to be provided from this pathway.

3. ACCESS AND TRANSPORT

- a. A collector road ~~looping~~ through the site ~~to shall~~ provide ~~an~~ internal links ~~between Turners Roadover the Pūharakekenui- Styx River to Lower Styx Road; and to Spencerville Road. Collector roads within the site shall be designed to accommodate bus services.~~
- b. A fully interconnected local road network across the site that achieves a high level of accessibility for people, including opportunities for walking, cycling and public transport.

Commented [JC6]: 3,000m² GFA enablement is considered appropriate and consistent with District Plan policy direction regarding the size and role of Neighbourhood Centres

Commented [JC7]: In response to Council UD evidence on the need to ensure the land remains available for a neighbourhood centre, noting that commercial demand typically follows a customer base so full development of commercial is only likely to occur following full development of the residential balance of the site.

Commented [JC8]: To capture Mr Smith recommendation at his para 29. It has always been the intent that the collector roads would be capable of accommodating PT, with the narrative wording making this explicit.

APPENDIX 2

- c. A new two-lane bridge shall be provided to connect Lower Styx Road to the internal collector Road near or at the paper road extension of Teapes Road. This bridge is to be provided before any fill is brought to the site.
 - d. Lower Styx Road shall be reclassified as a minor arterial, widened and resealed between the new bridge and Marshland Road. That widening and resealing should be completed after all fill has been brought to the site but before any housing is occupied.
 - e. The single lane bridge on Spencerville Road shall be replaced by a two-lane bridge.
- c. Upgrades to the sealed width of Turners Road, and Teapes Road that include the following:
 - i. Upgrade of the Turners Road/ Marshland Road intersection to provide a left turn lane from Turners Road prior to the issue of section 224 (c) certificates for when more than 700 residential lots are created;
 - ii. Turners Road from Spencerville Road to Marshland Road is to be upgraded to a 6.0m wide carriageway with 0.5m sealed shoulders;
 - iii. Teapes Road is to be upgraded to a 5.5m carriageway with 0.5m sealed shoulders;
 - iv. The Turners Road and Teapes Road transportation network upgrades shall include the squaring up of the intersection; and
 - v. Any land that is required to ensure the minimum sight lines are achieved as part of the Turners Road and Spencerville Road intersection upgrades to the east along Spencerville Road shall be vested in Council as public road.
- f. Safe System auditing procedures shall applied to all new roads to vest; and shall also include Spencerville Road, Turners Road and Lower Styx Road. These audits shall be provided for at the following stages:
 - i. Stage 1 scheme/concept
 - ii. Stage 2 preliminary design stage
 - iii. Stage 3 detailed design stage
 - iv. Stage 4 pre-opening and/or post construction stage
- g. A Level Crossing Safety Impact Assessment (LCSIA) shall be undertaken on the Spencerville Road level crossing to the west of the site that applies the relevant KiwiRail guidance. Any transportation network improvements identified in the LCSIA, including the installation of safety barrier arms, shall be completed prior to the issue of section 224 (c) certificates.
- d.

APPENDIX 2

4. STORMWATER

- a. A sustainable stormwater management solution for the neighbourhood integrated with open space reserves.
- b. Enhancement of the habitat and ecological values of the Styx River and its margins in association with stormwater management and provision of reserves.
- c. Restoration, naturalisation and ecological enhancement of Spencerville Drain.
- d. The flood volume of the High Hazard Management Area will not be reduced.

5. WATER SUPPLY AND WASTEWATER

- a. A water supply network and an associated new bore and water treatment plant and potential storage facility. A groundwater abstraction and water treatment pump station, designed and constructed in accordance with an Infrastructure Provider Agreement that incorporates Council standards and requirements, supplying into a new water supply network integrated with the Brooklands-Kainga water supply zone.

a.i. The design and construction shall include an assessment on the wider groundwater and freshwater systems.

- b. Sufficient water supply to meet fire-fighting requirements.
- c. A local pressure sewer network, discharging to a rising trunk sewer to be laid along via a pressure main along Spencerville Road, over the existing bridge and then along into the Lower Styx Road gravity sewer network, including odour treatment, corrosion protection and the upgrade of the to pump station 78 at Heyders Road Pumpstation (PC78), to be designed and constructed in accordance with an Infrastructure Provider Agreement incorporating Council standards and requirements in Spencerville.

i. The design and construction shall include an assessment on the wider receiving wastewater system and network and factor in sea level rise, wet-weather conditions and groundwater levels in its overall design including:

- a. system performance under groundwater-influenced conditions
- b. whether LPS attenuation assumptions are valid
- c. empirical baseline data (wet-weather flows, I&I, pump performance)
- d. SLR-driven groundwater rise into wastewater system loading
- e. geotechnical hazards assessment of liquefaction, settlement, and groundwater conditions

e.

6. CULTURAL AND ARCHAEOLOGICAL VALUES

- a. A cultural impact assessment and an archaeological assessment shall be prepared as part of developing the preliminary design and site layout. The recommendations of those documents shall be taken into account in the layout of the site.

6.7. STAGING

APPENDIX 2

- a. There are no staging requirements beyond those relating to the provision of infrastructure.

7.8. NATURAL HAZARDS

- a. The land to the south of the Residential Development Area is subject to a high flood hazard risk. Activities within this area are subject to the provisions set out in Chapter 5.4.6. The area located between the Residential Development Area and Spencerville Drain is anticipated to be developed as stormwater basins and recreational space. Land located in the Rural Urban Fringe Zone is to be for farming, wetlands, stormwater basins, and recreation.
- b. Any fill within the existing or future floodplain shall provide compensatory storage to:
 - i. Avoid the loss of live flood storage;
 - ii. Ensure that the development will not displace ponded flood waters onto adjacent properties; and
 - iii. Ensure the flood storage volume of the High Hazard Management Area is not reduced.
- c. The minimum land levels for new development shall apply:
 - i. The 1 in 200-year Max of Max flood predictions, which includes the highest series of pre-determined combinations of rainfall and tide Annual Return Interval.
 - ii. A 1.2m SLR (2.88m NZVD) plus any additional factor of VLM; and
 - iii. The finished floor levels for any new dwellings shall apply this peak water level plus 400mm of vertical freeboard.
- d. To allow for the safe egress and ingress of passenger vehicles in the event of an evacuation for flooding, tsunami or other natural disaster, all internal roading, including the intersections with Spencerville Road, Teapes Road and Turners Road, must be built up to a predicted flood depth that is no more than 150mm when measured at the kerb in a 1 in 50 year flood event; or shall be in accordance with the general flood hazard vulnerability curves set out in the Australian Disaster Resilience Handbook Collection for Technical flood risk management guideline: Flood Hazard; whichever results in higher finished road surfaces.

APPENDIX 2

Technical flood risk management guideline: Flood hazard

6.

