IN THE MATTER OF the Resource Management Act 1991

AND

IN THE MATTER OF a resource consent application by Sanderson Group Limited to the Waikato District Council to develop land at 56 and 70 Tamahere Drive, and 82 and 92 Tamahere Drive, for retirement village (Tamahere Country Club southern and eastern extensions)

STATEMENT OF EVIDENCE OF KATHRYN ANNE DREW

INTRODUCTION

- 1. My name is Kathryn Anne Drew. I am the Planning and Land Development Manager at Bloxam Burnett & Olliver Ltd (**BBO**), a firm of consulting engineers, planners, and surveyors, based in Hamilton and Tauranga.
- 2. I have a Bachelor of Resource and Environmental Planning (Hons) from Massey University and have more than 20 years of experience in resource management and planning-related positions.
- 3. I am a full member of the New Zealand Planning Institute and a member of the Resource Management Law Association. I am a Certified Commissioner under the Ministry for the Environment's 'Making Good Decisions' course.
- 4. I have been involved in a wide range of planning work within the Waikato region over the last 20 years, including a variety of land development projects, sand quarries, landfills, and industrial and residential land use planning.
- 5. I have experience in preparing resource consent applications, assessment of environmental effects, and presenting expert planning evidence at hearings. My recent experience, particularly relevant to this hearing, includes providing retirement village providers with planning support for their site scoping, oversight of resource consent and submission preparation, and assistance on

key process related matters for their retirement villages in the Waikato region. I have also processed consents for retirement villages. Last month I also presented to the Future Proof Hearings panel for two retirement village providers.

- 6. I prepared both the original and revised resource consent application (Assessment of Environmental Effects (**AEE**)) for this Proposal. I also managed the sub-consultant inputs that form part of the AEE.
- 7. I am familiar with the Tamahere Country Club (**TCC**) site and existing environment having provided planning support since 2020 and having visited the site on numerous occasions. I was last on-site on 20 March 2024.
- 8. In preparing this evidence I have reviewed:
 - (a) The statements of evidence of expert witnesses giving evidence on behalf of Sanderson, specifically:
 - (i) Mr Nathan Sanderson (owner and operator of TCC);
 - (ii) Ms Joanna Soanes (landscape character and visual amenity);
 - (iii) Mr Mark Apeldoorn (traffic and transportation);
 - (iv) Mr Jeremy Hunt (soils and rural productivity).
 - (b) The updated Tamahere Country Club Expansion Infrastructure Report Revision 2, dated March 2024 prepared by Kotare Consultants Ltd;
 - (c) The s 42A Report dated 9th April 2024, prepared by Ms Michelle Carmine for the Waikato District Council (**Council**) and supporting peer review reports; and
 - (d) The submission made concerning the Applications sought.

Code of Conduct for Expert Witnesses

- I confirm that I have read the Environment Court's Code of Conduct for Expert Witnesses, as contained in section 9 of the Environment Court's Practice Note 2023, and I agree to comply with it.
- 10. The data, information, facts and assumptions that I have considered in forming my opinions are set out in my evidence that follows. The reasons for the opinions expressed are also set out in the evidence that follows.

11. I confirm that the matters addressed in this brief of evidence are within my area of expertise, with the exception of where I confirm that I am relying on the evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from my opinions expressed in this brief of evidence. I have specified where my opinion is based on limited or partial information and I have identified any assumptions I have made in forming my opinions.

Scope of evidence

- 12. Concerning this hearing, I am authorised to give evidence on behalf of Sanderson Group Ltd (**Sanderson**). The purpose of my evidence is to give my assessment of the Applications against the provisions contained in s104 of the Resource Management Act 1991 (**RMA**).
- 13. My evidence will address the following matters:
 - (a) A summary of the Applications sought;
 - (b) An overview of the resource consents required, and activity status;
 - (c) A summary of the effects on the environment of allowing the activities for which resource consent have been sought, including the proposed measures to mitigate adverse effects (s104(1)(a)), in the context of the relevant statutory planning framework;
 - (d) Consideration of the Applications against the requirements of s104 of the RMA;
 - (e) Consideration of the Applications against Part 2 of the RMA;
 - (f) The matters raised in the submission, relevant to my expertise;
 - (g) The matters raised in the s 42A Report;
 - (h) Appropriate resource consent conditions; and
 - (i) An overall conclusion.
- 14. In relation to the above, my evidence provides a more detailed assessment of these matters in relation to the Southern Extension and specifically the matters where there is a difference in opinion between myself (and other experts on behalf of the Applicant) and Ms Carmine.
- 15. Similarly, my evidence focuses on an assessment of the Applications against the Proposed Waikato District Plan Appeals Version (**PDP**). As set out in section 6.5

of the AEE it is my opinion that more weight should be applied to the PDP in determining these Applications, regardless of the more onerous consenting activity status it attracts. I acknowledge that Ms Carmine¹ reached a similar conclusion and has focused her report on the PDP too, albeit acknowledging consents are still required under the Operative Waikato District Plan (**ODP**), as specific appeals to some of the PDP rules have not been resolved.

Executive summary

- 16. The Applications subject to consideration in this hearing have been split into various consents to enable separate decisions to be made on them. In this regard, this evidence refers to the Applications as being that sought for the Eastern Extension and that sought for the Southern Extension.
- 17. The proposed Eastern and Southern extension sites (the **Sites**), and the existing TCC village, are wholly located in the General Rural Zone PDP and Rural Zone in the ODP.
- 18. Resource consents are required under both the PDP and the ODP for both the Eastern and Southern Extensions. Using the bundling principles I have assessed the Eastern and Southern Extension consents as a discretionary activity under the ODP and a non-complying activity under the PDP. The s127 application is a discretionary activity. Consents under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) are also sought, as controlled activities.
- 19. Because the effects on the environment are fundamental to an assessment under s104 of the RMA, I first set out my understanding of the effects of the Applications before considering the Applications against the relevant district plan objectives and policies.
- 20. As a result of that effects-based assessment and having due regard to the existing environment and measures proposed to mitigate the effects of the Applications, I consider that the adverse effects on the environment associated with both Applications can be avoided, remedied, or mitigated appropriately and are acceptable from a planning perspective and will not give rise to effects that are more than minor.
- 21. As is expected with a non-complying activity, the Applications do not completely align with many of the PDP objectives and policies. It does however align with one of the PDP's strategic direction objective of providing a variety of housing

¹ See section 4.3 of the s 42A Report.

types to meet the communities housing needs² (that provides overarching direction) and is supported by the pathway for retirement village expansions, as sought by these Applications, in policy GRUZ-P15. My assessment sets out that the PDP decision hearing panel (or the s 42A Report author for the Rural Zone hearings) did not intend that the expansion of existing retirement villages be limited to the PDP defined terms for 'alterations' and 'additions'. In my opinion, they always intended that the significant investments retirement villages have made and the role they provide in providing alternative housing choices need to be recognised and that expansion of such villages is an appropriate outcome in the rural zone.

- 22. The importance of providing alternative housing choices for an ageing population, as it relates to the Applications sought, is also discussed in more detail in my analysis of the Applications against the regions sub-regional growth strategy (Future Proof) and the corresponding Waikato Regional Policy Statement (**RPS**). The key points of that assessment are that:
 - (a) Modern retirement villages necessitate larger sites, to cater for the full range of facilities that support that landuse outcome in or near existing urban environments and such suitable locations are scarce. There are significant challenges in finding suitable sites and simply zoning land for residential land uses is not enough to meet the demand for retirement living.
 - (b) Retirement villages are a residential activity but have some notable differences from other residential activities. They have unique functional, operational and other needs which differentiates them from other forms of residential development.
 - (c) The NPS-UD seeks to provide for well-functioning urban environments that *"enable all people and communities to provide for the wellbeing, health and safety."* To achieve this objective, in relation to older persons within the community, means providing for the specific housing and care needs of those people.
 - (d) There needs to be a better way of providing for retirement villages outside of identified growth areas. The Future Proof hearings panel have recognised this matter and are proposing their first Implementation plan will include engagement with the retirement village sector to better understand their needs.
- 23. The net latent demand for retirement unit provision in Tamahere and the wider catchment is examined in detail in the recently commissioned Webster Research

² Objectives SD-O4.

and indicates that by 2043, 6580 retirement village units will be in demand in the area. These Applications will provide for 69 units of this demand.

- 24. The Applications were supported by 8 written approvals, from 9 of the adjacent properties. In accordance with s104(3)(a)(ii) of the RMA, the effects on those parties must not be considered by the consenting authority. The extent of approvals received is depicted in Figure 16 of the s 42A Report.
- 25. The one submission received, on the Applications, has recorded that the development is inappropriate as it does not meet the restrictions for development for the rural zone. I recognise that the extensions will change the character of the sites to be developed, however, that change will be viewed in the context of the existing environment that already includes a retirement village. From an amenity perspective, the objectives and policies of both relevant district plans recognise that the amenity of the Rural Zone is not static.
- 26. In respect to the matters required to be considered under s104(1) of the RMA:
 - (a) The assessment of effects concludes that the proposal will have positive effects and that the physical adverse effects can be mitigated so that they are less than minor in nature. It also demonstrates effects relating to lost soil resources and rural character effects are minor, at worst;
 - (b) The Application has been demonstrated to meet the exemptions for use of highly productive land as set out in the National Policy Statement for Highly Productive Land (NPS-HPL); and
 - (c) As noted above, the Applications can be distinguished from other residential activity type applications, in the rural zone, being that it caters for a specific demographic of society and is an extension of an existing village (as enabled by policy GRUZ-P15). These two matters help with perceived precedent and district plan consistency effects.
- 27. Having regard to the effects of the Applications on the environment, including the various conditions and mitigation measures proposed by the Applicant, the provisions of the relevant planning documents and relevant other matters, I conclude that the Applications will promote the purpose of the RMA, and there are no planning reasons to decline the consents sought.
- 28. I have reviewed the s42A report prepared by Ms Carmine on behalf of the Council who has recommended that the consents for the Eastern Extension be granted and that the Southern Extension be declined.
- 29. In reaching these recommendations, Ms Carmine has come to a different conclusion regarding the Southern Extension about the following matters:

- (a) The effects on rural character and settlement patterns will have adverse effects that are more than minor for the Southern Extension.
- (b) The effects on soil resources are minor within the Southern Extension.
- (c) The Applications are not captured as alterations or additions to an existing village, and therefore Policy GRUZ-P15 is not relevant and cannot be used to outweigh the other policies of the rural zone and that the Eastern and Southern Extensions are contrary with the objectives and policies of the PDP.
- (d) The proposal undermines the objectives and policies of the RPS and NPS-UD in relation to well-functioning urban environments, compact urban form and the directive settlement patterns determined under a statutory framework.
- (e) On precedent and district plan integrity the proposal is not materially indistinguishable from other applications and other applications are likely.
- (f) The Southern Extension cannot meet either sections (a) or (b) of s104D(1), being that the adverse effects of the activity on the environment will be minor or the application is for an activity that will not be contrary to the objectives and policies of the relevant district plan.
- 30. Having considered the s 42A Report, the overall planning conclusions set out in the AEE have not changed, and I maintain my opinion that both the Eastern and Southern Extension sites can pass at least one limb of the s104D gateway test, to enable a substantive decision to be made. It is thereafter my opinion that the consent for the Eastern and Southern Extension, can be granted for the following reasons:
 - (a) First and foremost both the Eastern and Southern Extensions meet Council's strategic direction policy of providing a variety of housing to meet the needs, including its changing needs, of the community. The analysis by Webster Research also confirms that there is a net latent demand in the area of 6580 units, through to 2043, that is required to cater to the ageing population.
 - (b) Policy GRUZ-15 provides for more than just the PDP defined terms of 'alterations' and 'additions' and was always intended to provide a pathway for the expansion of existing retirement villages because of the significant investment they have made and the contribution they make in catering for the needs of the ageing population, which is understood to be at a crisis point.
 - (c) The Applications will not give rise to effects that are more than minor, particularly with regard to rural character and soil resources. This is because

they are an expansion of an existing retirement village, they have been deliberately designed with an appropriate interface that responds to the character of the existing environment, and because over time they represent a seamless expansion of the existing TCC village. For the soil resource, the evidence of Mr Hunt is that the land contained in both the Eastern and Southern Extensions has no economic or primary productive value which in my opinion is the key driver for protecting the soils resource.

- (d) While the proposal is not entirely consistent with the RPS, the inconsistencies are appropriate because they represent an extension of an existing retirement village, there are apparent deficiencies in how Future Proof (and thus the RPS) provides for retirement village demand and because demand for further retirement village accommodation has been demonstrated in the supporting demand analysis.
- (e) The Applications are materially indistinguishable from other applications to not give rise to precedent effects.
- (f) Both Applications can pass both limbs of the s104D gateway tests to enable a substantive decision to be made and there is no impediment to granting both Applications as sought by the Applicant.

THE PROPOSAL

Background

- 31. Section 3 of the AEE sets out in detail the consenting background for the TCC site, dating back to the first resource consent that was granted in November 2018³. Since 2018 a further two resource consents⁴ (excluding variations) have been sought and obtained from the Council. The most recent of these consents was obtained in October 2021 prior to decisions on the PDP⁵.
- 32. Collectively these consents provide for 202 villas/townhouses, an 80-bed care facility (offering a range of apartment units, care suites and a dementia care unit) and supporting amenity features such as the Club House, Club Rooms, the Lake House, a health spa, tennis court, bowling green, driving range, pétanque court and hobby shed across 23.8 ha of land.
- 33. The consented site layout is shown as Figure 4 of the AEE and shows the relationship of the consented development to the existing environment.

³ Waikato DC Reference: LUC0023/19.

⁴ Waikato DC Reference: LUC0156/20 and LUC0597/21.

⁵ Decision on the PDP were released 17 January 2022.

- 34. Much of the TCC village, including supporting facilities have been constructed. As of April 2024, there are approximately 20 villas left to construct and occupy within the consented TCC village footprint. The care facility is also currently being constructed. The first rooms are expected to open in the first quarter of 2025, with the balance open by the end of 2025.
- 35. One of the sites subject to the Eastern Extension also operates under a resource consent for a transport depot (Red Lid Bins)⁶. Along with the transport depot that site also has consent for a dependent person's dwelling⁷. Both these consents have been and continue to be exercised.

Overview and Sites

- 36. Sanderson is seeking various resource consents for an extension to the TCC retirement village, across land described as the Eastern and Southern Extension. Collectively the extension sites seek to provide for a further 69 villas, along with additional communal amenities.
- 37. Those Applications relate to 56 and 70 Tamahere Drive to the east and 82 and 92 Tamahere Drive to the south. The application also relates to one of the existing TCC sites, also referred to as 70 Tamahere Drive. The relationship of the extension sites relative to the consented footprint for the TCC village is shown in **Figure 1** (following page).
- 38. The underlying zoning for the Sites is General Rural Zone (GRUZ) under the PDP and Rural Zone in the ODP. All sites adjoining the TCC have similar zoning. The zoning changes to the north of Airport Road, whereby the zoning is Rural Lifestyle Zone (RLZ) in the PDP or Country Living in the ODP. Development within the RLZ is to a higher density than the GRUZ (i.e. 5000m² lots).

⁶ Consent reference LUC0303/18.

⁷ LUC0204/12.



Figure 1: Tamahere Country Club Site including extension sites.

- 39. The Applications have been broken up into five parts so that consent decisions can be individually authorised.
- 40. The five parts are as follows:

Eastern Extension Applications:

- **Part A:** is a land use consent, under both district plans to extend the retirement village across 56 and 70 Tamahere Drive to the east to provide for a further 25 villas and a small arts and crafts facility.
- Part B: is a s221(3) cancellation of consent notice (B513181.3) registered on the title⁸ for 70 Tamahere Drive. This application goes hand in hand with Part A.

⁸ SA64C/250.

Southern Extension Applications:

- **Part C:** is a land use consent, under both district plans to extend the retirement village across 82 and 92 Tamahere Drive to the south to provide for a further 42 villas and a new health spa.
- Part D: is a s127 application to change the conditions (Condition 1 of LUC0597/21.03) and approved plans of an existing TCC consent for a previous southern extension at 70 Tamahere Drive to provide for two additional villas. These villas are proposed to be located on the existing southern boundary, within the current 25m setback. This application goes hand in hand with Part C.
- Part E: is a land use consent, under the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS), for land within 92 Tamahere Drive. This application goes hand in hand with Part C.
- 41. It has subsequently come to my attention that Council's inhouse Contaminated Land Specialist, Mr Alan Parkes, has been engaging with the author of the Detailed Site Investigation (DSI). The outcome of this engagement is that HD Geo has prepared a subsequent DSI that identifies that consent under the NESCS is also required for the two Eastern Extension properties. A copy of that DSI is attached as Annexure A of this evidence. In light of this updated reporting, I request that the consent for the Eastern Extension also authorise earthworks under the NESCS.
- 42. Further details on the development outcome for the site, including site layout and dwelling sizes, built form, materials and colours, infrastructure provisions, transportation requirements and expected earthworks is set out in Section 5 of the AEE and as described in section 1.2 of the s 42A Report. I have not repeated that information here.

Resource Consents required

- 43. The decisions on the PDP were released on 17 January 2022. There is currently an Appeals Version of the PDP which denotes the rules that have legal effect. The current Applications were made under the Appeals Version of the PDP.
- 44. The consents required are summarised for both the Eastern and Southern Extensions in section 6.1 and section 6.2 of the AEE.
- 45. In principle that assessment confirms that consent is required under both the PDP and the ODP because the activities do not comply with the rules relating to

activities in the GRUZ or Rural Zone and because appeals on rules for the GRUZ have not been resolved.

- 46. The assessment in the AEE for the PDP generally aligns with that undertaken by Ms Carmine in section 5.1 of the s42A Report⁹. In conclusion, both the Southern and Eastern extensions require resource consent, as a non-complying activity due to non-compliance with the following rules:
 - (a) GRUZ-S1 Number of residential units and seasonal worker accommodation within a lot non-complying activity.
 - (b) GRUZ-S9 Building coverage restricted discretionary activity.
 - (c) GRUZ-R61 Any activity not specifically listed as a permitted, controlled, restricted discretionary or non-complying activity non-complying activity.
 - (d) EW-R1 Earthworks general restricted discretionary activity.
 - (e) EW-R22 Earthworks general restricted discretionary activity.
- 47. The assessment in the AEE for the OPD generally aligns with Ms Carmine in section 5.2 of the s42A Report. There are however differences in our assessments. In reality, those differences do not affect the overall activity status for the consents sought, so in my opinion warrant limited further critique. I would however like to highlight that in my opinion the ancillary activities (i.e. arts and crafts facility and health spa) and their appropriateness under the rule framework are addressed through the non-compliance with Rule 25.52 Non-residential building that I have identified.
- 48. In conclusion, it is my assessment, that both the Southern and Eastern extensions require resource consent, as a discretionary activity, under the ODP and resource consent as a non-complying activity under the PDP.
- 49. The s127 sought, for the two additional villas within the existing TCC village footprint requires consent as a discretionary activity under s127(3)(a) of the RMA.
- 50. The consent sought under the NESCS is a controlled activity, for 56, 70 and 92 Tamahere Drive.

⁹ Mr Apeldoorn's EIC (paragraph 48(a)) has identified that compliance with TRPT-R4 can be achieved.

Ancillary Resource Consents

- 51. Due to the on-site nature of the existing TCC village, in relation to water supply, and wastewater and stormwater discharges, Sanderson holds resource consents from the Waikato Regional Council for:
 - (a) AUTH143639.02.01 stormwater diversion and discharge
 - (b) AUTH143639.03.01 groundwater take of 355 cubic metres per day and 63,325 cubic metres annually for potable and irrigation purposes.
 - (c) AUTH143639.04.01 discharge of treated wastewater, being 130 cubic metres per day.
- 52. Should the resource consents sought for the Southern and Eastern extensions be successful then these consents will either be varied, or new consents obtained to provide for the additional land serviced and any changes in demand and supply of three waters infrastructure that might eventuate.

ASSESSMENT OF ENVIRONMENTAL EFFECTS

- 53. The actual and potential effects of the proposal on the environment have been given detailed consideration as part of the AEE, the technical assessments and the evidence of the experts on behalf of the Applicant. The s 42A Report and peer reviews that form part of the s 42A Report have also addressed the actual and potential effects of the proposal.
- 54. The evidence for the Applicant, which I refer to and rely on in my evidence, expands on the earlier technical reports and further addresses the environmental effects of the proposal, with a focus on the matters in contention and the Southern Extension.

Existing Environment

- 55. I have assessed the actual and potential effects of the proposal having understood the nature and characteristics of the existing environment within which the activity is proposed to be located. That approach is consistent with accepted planning principles.
- 56. I have not undertaken a detailed permitted baseline assessment as part of this evaluation, as I agree with Ms Carmine's assessment¹⁰ that there is limited value in applying the permitted baseline to the activities sought, apart from the

¹⁰ In section 6.2 of the s 42A Report.

earthworks¹¹ in the Eastern Extension and volume of vehicle movements¹², because the scale of the bulk of the development is not comparable in terms of effects to any other permitted activity in the GRUZ.

- 57. The existing landscape, roading, three waters, and agricultural characteristics of the Site and its surrounds are described in the evidence of Ms Soanes, Mr Apeldoorn, Mr Murphy, and Mr Hunt. I do not repeat that analysis here. However, I note that the existing environment is comprised of the following characteristics:
 - (a) A zoning of GRUZ on the site and the directly surrounding properties. This zoning is not subject to challenge.
 - (b) Collectively the Eastern extension is 1.9ha in size and contains three dwellings and built form and hardstand areas associated with Red Lid Bins. That business has an existing resource consent approval and covers 32% of the site area.
 - (c) Collectively the southern extension is 5.25ha in size. These properties adjoin the existing southern boundary of the TCC village. 82 Tamahere Drive is a rear lot that is currently being used as the construction office and site yard for the TCC village. 92 Tamahere Drive is a former Christmas Tree farm, with a single dwelling and associated sheds – generally centrally located.
 - (d) Eight properties directly adjoin the existing TCC village and Southern Extension site. These properties range in size from 1.3ha to 9.4ha¹³. Properties in the wider environment also range from 9400m² to 22ha¹⁴, with the predominant lot size being less than 2ha. These properties generally contain one or two dwellings, ancillary shedding and curtilage areas and large tracts of open space. Being that the average size is around 2ha, there is a higher predominance of built form in the existing environment than in other rural parts of the Waikato district where the average lot size is significantly higher.
 - (e) Tamahere Drive¹⁵ frames the eastern boundary of the site and includes the Te Awa Cycleway – a 3m wide concrete shared path that runs from Ngaruawahia to Karapiro.

¹¹ Earthworks of up to 2000m³ can be undertaken on a site within a 12 month period under Rule EW-21 of the PDP. ¹² Traffic generated from permitted activities is enabled up to 200 vehicle movements per day under Rule TRPT-R4(iv) of the PDP.

¹³ The 9.4ha property is 47B Pencarrow Road that adjoins 82 Tamahere Drive for approximately 100m.

¹⁴ 72 Day Road, Tamahere.

¹⁵ Which is classified as a local road in the PDP.

- (f) The TCC village Site is located approximately 400m from the Tamahere Commercial Centre and supporting open space. The Site is connected to the Tamahere Commercial Centre by the recently constructed underpass under Airport Road and the supporting footpath network.
- (g) The noise environment is likely to be influenced by the traffic noise on Tamahere Drive, Airport Road (SH21) and the nearby Waikato Expressway.
- (h) The wider Tamahere area contains a mixture of rural lifestyle blocks, bush areas (gully systems), a designation for the Southern Links roading network, a sand quarry¹⁶ and some commercial-type activities such as Regal Haulage¹⁷.
- (i) There are no outstanding natural landscapes, protected landscapes or significant natural areas on, or directly adjacent to, the Site.
- (j) The existing TCC village is a defining visual feature of the existing environment, covering 23.8ha and fronting both Airport Road and Tamahere Drive.

Actual and Potential Effects

- 58. Based on my review of the existing assessments, the s 42A Report, the evidence for the Applicant, and the submission received, I consider that the relevant actual and potential effects that are most relevant to considering the Applications sought can be grouped into the following topics:
 - (a) Archaeological and cultural effects.
 - (b) Infrastructure and construction effects.
 - (c) Transportation effects.
 - (d) Effects relating to the productive capacity of the Site and its soils.
 - (e) Rural character and amenity effects.
 - (f) Precedent and cumulative effects.
 - (g) Positive effects.
- 59. I provide below my summary and analysis of the potential effects of the Eastern and Southern extensions in the context of the statutory planning framework and the expectations that it sets for the management of those actual and potential

¹⁶ 34A Tauwhare Road, Tamahere.

¹⁷ 651 Airport Road, Tamahere.

effects. My analysis does not seek to repeat the evidence of other witnesses – but rather to consider the key conclusions and, potential points of agreement or disagreement, as relevant to the statutory planning framework.

Archaeological and Cultural effects

- 60. The provisions of the PDP¹⁸ that deal with historic heritage (including archaeological sites) requires that its heritage is recognised and in the case of development seeks to ensure that activities are managed and given due consideration to the extent of protection required. Similarly, the provisions that deal with cultural matters are those contained in the Māori values and Mātauranga Māori section of the PDP¹⁹. Those provisions address the values of importance to Māori.
- 61. Ms Carmine has addressed archaeological and cultural effects in sections 6.4.8 and 6.4.9 of the s42A Report. I agree with Ms Carmine that these effects will be acceptable and can be managed through the conditions of an authority, to be obtained from Heritage New Zealand Pouhere Taonga and through further partnership with Ngāti Hauā (as recorded in a supporting Cultural Values Assessment (**CVA**)).

Infrastructure and Construction effects

- 62. The provisions of the PDP²⁰ that deal with infrastructure requires infrastructure to be provided for, that is integrated with future use and is to a level that is appropriate for its location and intended use.
- 63. The TCC site is independently serviced with its own reticulated water, wastewater and stormwater network and is subject to regional council consents for such.
- 64. Ms Carmine has addressed the three water infrastructure effects in sections 6.4.10-6.4.12 of the s 42A Report. That assessment records that it relies on the updated infrastructure report submitted in support of the Applications and the peer review undertaken by Mr Templeton (a Senior Land Development Engineer for Council) to conclude that suitable and sufficient infrastructure can be put in place to service the Extension sites and any resulting infrastructure effects from both Extensions will be less than minor. I agree with the conclusions reached and confirm that the proposal will not result in any inappropriate infrastructure-related effects, is consistent with the relevant provisions of the PDP that require

¹⁸ For example Objective HH-O1, policies HH-P1, HH-P2 and HH-P4.

¹⁹ Part 2:District-wide matters / Historical and cultural values / MV Māori values and Mātauranga Māori.

²⁰ For example Objective AINF-O7 and Policy AINF-P26.

developments to be appropriately serviced and will not result in offsite adverse effects.

- 65. Should variations or new regional consents be required to be obtained these will be sought following the decisions on these Applications.
- 66. In relation to construction effects, I agree with Ms Carmine²¹ that effects relating to construction can be appropriately managed via conditions of consent, including the development and implementation of a construction management plan, so that any construction related effects are less than minor. This has been the standard practice for the site since the original consents were granted.
- 67. The evidence of Mr Sanderson²² has also addressed Ms Carmine's question about how Sanderson intends to manage the construction depot moving forward. Whether or not the existing depot requires retrospective consent is a matter we will address following decisions on the Applications sought.

Transportation Effects

- 68. Mr Apeldoorn has provided an assessment of the transportation effects from the Applications as, with a focus on the concerns raised in the submission. The below presents a summary of Mr Apeldoorn's key conclusions:
 - (a) Vehicle queuing at the gated access points on Tamahere Drive are safely and appropriately provided for and will readily accommodate the current and proposed (Eastern and Southern) development traffic demands.
 - (b) The generated traffic demands due to the proposed additions will be well within the carrying capacity (11% to 17%) of the adjoining Tamahere Drive, the recently upgraded Tamahere interchange and adjoining transport network.
 - (c) The current design and form of access points on Tamahere Drive will support the additional traffic demands generated by both the Eastern and Southern Extensions.
 - (d) Public transport services are within readily accessible walking and cycling distances and times, they are suitably frequent and provide access to a wide range of services and needs for residents.

²¹ Section 6.4.6 of the s 42A Report.

²² Mr Sanderson EIC, paragraph 45.

- (e) The Tamahere shopping centre is readily accessible, being within a 13 to 15minute walk or a 3 to 5-minute cycle of the site. This is strongly aligned with Future Proof outcomes for 30-minute communities.
- (f) The submission does not give rise to any transport matters of substance. Council's independent technical review report, undertaken by Gray Matter, reaches similar conclusions.
- (g) The proposal is not inconsistent with the RPS intent of creating a wellfunctioning urban environment when you take into consideration the context of the proposed retirement village transport activities, its location and its accessibility characteristics.
- (h) The draft transport related conditions provided for the Eastern extension are appropriate in the context of both the Eastern and Southern extension applications.
- (i) The traffic and transportation effects, subject to the recommendations captured in the draft conditions, are less than minor with respect to the Eastern and Southern Extensions, as well as cumulatively.
- 69. The provisions of the PDP²³ that deal with transportation requires that activities (in summary) do not compromise the safety and efficiency (including maintenance, upgrading, development and operation) of the land transport network. Based on the evidence of Mr Apeldoorn, I consider that both Extensions are consistent with the outcomes that the transportation related provisions seek to achieve and will not give rise to adverse effects that a more than minor.

Effects relating to the productive capacity of the Site and its soils

- 70. As set out in the evidence of Mr Hunt, the Site contains both LUC 1s and LUC2w under the New Zealand Land Resource Inventory LUC Classification maps. The relationship of both LUC classification relative to the Site is shown in Annexure B of Mr Hunts evidence.
- 71. These LUC classifications mean that the Site meets both the transitional definition of Highly Productive Land (**HPL**) and the definition of High-Class Soils in the PDP²⁴.

²³ For example, Policy AINF-P27.

²⁴ High-class soil is defined as meaning "Means those soils in Land Use Capability Classes I and II (excluding peat soils) and soils in Land Use Capability Class IIIe1 and IIIe5, classified as Allophanic Soils, using the New Zealand Soil Classification".

- 72. There is no disagreement on this matter between the parties. Nor is there a disagreement that the Applications sought will result in the removal of high-class soils. There is however disagreement around the assessment of the loss and the resulting effects rating, which I traverse below.
- 73. In my opinion, the provisions of the PDP²⁵ that deal with high-class soils requires that the primary productive value of high-class soils is retained by protecting it from urban development and thus recognising that the rural zone is a productive working environment. Mr Hunt's evidence sets out in detail the productive value, or lack thereof for the Site. His evidence is that:
 - (a) The Site has significant permanent and long-term constraints that impact its long-term productivity including:
 - (i) non-reversable fragmentation which relates to the existing titles and those adjoining – which will never reduce or be eliminated;
 - (ii) small scale of the site, collectively and individually, which means the only practicable option of primary production is pastural grazing in the form of hobby farms; and
 - (iii) modified and anthropic soils 4.15ha of the Site contains soils that are highly modified or disturbed and could not be easily reverted back to primary production.
 - (b) The economic viability for the properties, based on various land-based primary productive results in annual deficits, means that the properties are not of an economic size for commercial primary production. There is also no scope to sufficiently increase scale to increase profitability.
- 74. Mr Hunt does not consider that the loss of 7.16ha (or 3.01ha that is available for land-based primary production) constitutes a significant loss of productive capacity on highly productive land and has no impact on productive land on a district scale. Key to this conclusion is that the Site's major constraint is non-reversal land fragmentation and the size is of an insufficient scale to be economic, particularly when considered as individual titles.
- 75. The peer review report of Mr Hunt's assessment, undertaken by Mr Stuart Ford (Director of AgriBusiness Group) has generally agreed with the conclusions reached by Mr Hunt, for the purpose of the NPS-HPL assessment, as such there is no disagreement that the land contained in both the Eastern and Southern

²⁵ For example, Objective SD-O8, Objective GRUZ-O2 and Policy GRUZ-P1.

Extensions has no economic or primary productive value. This is recorded as such by Ms Carmine at various points in her s 42A Report²⁶.

76. Ms Carmine then splits her assessment of the productivity of rural land and the effects on the soil resource and in doing so sets out that, in her opinion, the soil resource should be considered separately from the productive potential of that soil. In adopting this approach Ms Carmine records that:

"I do not consider that the findings of the technical experts (that there is no economic viability for primary production on the land) is a justification for why it is acceptable to remove the soil resource across the areas of the development sought in this case".

- 77. Ms Carmine then records that the loss of soil resource for the Eastern Extension is approximately 5,000m², which gives rise to a less than minor effect. For the Southern Extension Ms Carmine is of the opinion that there is 3.7-3.8ha of lost soil resource and that the effect of this loss is a minor effect.
- 78. Whilst we could debate whether the value of soil resource lost is less than Ms Carmine sets out, I do not want to focus on that matter and prefer to address her justification for the separation of soil resource from its productivity.
- 79. Ms Carmine has specifically separated the soil resource from its productive value for its 'intrinsic value' and because there are inconsistencies in the PDP in relation to the rules and soil resource i.e. a number of activities are provided for in the GRUZ that are not required to consider the value of soils.
- 80. I do not agree with this analysis. In my opinion, they cannot be and are not intended to be separated and the reason there are activities enabled that are not required to consider soil value is because those activities are expected in the GRUZ such as quarries and intensive farming.
- 81. In reaching this conclusion I also note that:
 - (a) If you are not protecting the soil resource for productive activities, because it is a finite physical resource, what are you protecting it for and what is the purpose of its protection?
 - (b) The protection of soil resources is linked to s5(a) and (b)²⁷, s7(b)²⁸ and s7(g)²⁹ of the RMA.

²⁶ See section 6.4.4 and section 6.4.5 of the s 42A Report (pdf pages 80 through to 90).

 $^{^{\}rm 27}$ s5(a) sustaining the potential of natural and physical resources and s5(b) safeguarding the life-supporting capacity of soil.

 $^{^{\}mbox{\tiny 28}}$ s7(b) the efficient use of natural and physical resources.

²⁹ s7(g) finite characteristics of natural and physical resources.

(c) The PDP s32A report³⁰ for the rural zone identified that the key resource management issue to be addressed is [**emphasis added**]:

" managing rural land in a way that is sustainable and that allows both current and future generations opportunities to provide for their wellbeing" and that "managing demand and the and the fragmentation of land is vital because land fragmentation leads to the loss of high class soils and productive land. Both of these resources are significant for the Waikato District. High class soils are a significant natural resource that is under threat. As parcels of land get smaller, they are less likely to be used for productive activities."

(d) Issues are addressed through objectives with the policies giving effect to those objectives. The PDP contains several objectives and policies relevant to this matter including [emphasis added]:

SD-O8 – Highly productive soils

High quality soils are protected from urban development, except in areas identified for future growth in the District.

GRUZ-O1 – Purpose of the Zone

- 1) Enable farming activities;
- 2) Protect high class soils for farming activities;
- *3) Provide for rural industry, infrastructure, rural commercial, conservation activities, community facilities, and extractive activities;*
- 4) Maintain rural character and amenity;
- 5) Limit development to activities that have a functional need to locate in the zone.

GRUZ-O2 - Productive capacity of soils

The primary productive value of soils, in particular high class soils, is retained.

GRUZ-P1 – High class soils

Ensure the adverse effects of activities do not compromise the physical, chemical and biological properties of high class soils.

GRUZ-P2 – Effects of subdivision and development on soils. Subdivision, use and development **minimises the fragmentation of productive rural land, particularly where high class soils are located**.

(e) At multiple points above, the objectives and policies link high-class soil to a land use outcome which has a productive value associated with it. For example, the protection of high-class soils from urban development and/or fragmentation enables them to be retained for farming activities and their associated productive value.

³⁰ See Section 1.3 of the Rural Zone s32A report for the PDP.

(f) This approach also aligns with the objectives and policies of the RPS, as below [emphasis added]:

LF-O5 – High Class Soils

The **value of high class soils for primary production** is recognised and high class soils are protected from inappropriate subdivision, use or development.

LF-P11 – High class soils Avoid a decline in the availability of **high class soils for primary production** due to inappropriate subdivision, use or development.

(g) Ms Carmine suggests that, in the context of the PDP, farming activities do not have to be ones that are economically viable, and it could be a hobby farm for primary purposes. This does not necessarily need to be the case, and I note that the RPS defines primary production (see below with **emphasis added**), using language such as 'commercial' and excluding hobby farms. In my opinion, the RPS language is providing for a direct economic linkage to the protection of the high class soil.

"means the **commercial production** of raw material and basic foods, and which **relies on the productive capacity of soil or water resources of the region**. This includes the cultivation of land, animal husbandry/farming, horticulture, aquaculture, fishing, forestry, or viticulture. It **does not include hobby farms,** rural residential blocks, or land used for mineral extraction."

- 82. For transparency I record that the RPS definition contrasts with the definition of Farming and Primary Production in the PDP which do not exclude hobby farms.
- 83. Regardless of the differences in definitions, it is my opinion that you cannot separate the soil resource from its productive potential. Therefore based on the evidence of Mr Hunt around productive potential, it is my opinion that the effects on the soil resource is less than minor for both the Southern and Eastern Extensions.

Rural Character and Amenity Effects

84. Character and amenity values and the resulting visual effects of the built form are key considerations when considering a non-rural use in the rural environment. The character and amenity of the surrounding area is determined by the zoning and policy framework for the site, and the existing land uses and activities in the immediate locality. In this context, we describe this as rural character, albeit acknowledging that rural character can be diverse and varied.

- 85. Ms Carmine considers that the overall effects on rural character will be minor for the Eastern Extension and more than minor for the Southern Extension. In reaching these conclusions Ms Carmine notes that:
 - (a) The Landscape and Visual Effects Assessment (LVA) prepared in support of the Applications does not place sufficient regard to the context of the zoning provisions and the policies of the rural zone in coming to the conclusions it reached.
 - (b) The rural characteristic of the surrounding environment is understated in the assessments.
 - (c) The PDP indicates that the cumulative effects of residential growth on rural character in the rural zone are at a tipping point and any further non-rural uses should be avoided.
 - (d) The Extensions will change the character of the extension sites from a rural character to an urban character; the sites (particularly the Southern) cannot absorb the change; the visual integration with adjoining land does not diminish the change; there is sufficient rural character to the south and a well-defined edge and the change will result in cumulative adverse effects on rural character and represents "planning creep".
- 86. I do not agree with this analysis. In my opinion, Ms Carmine has focused on the specific character of the Sites subject to the Applications and not the context within which they sit and further she has provided a limited assessment of the actual amenity effects that go hand in hand with rural character. On the last point, all the objectives and policies of the PDP talk about rural character <u>and</u> amenity, as a combined matter, not singular matters.
- 87. As a starting point for my assessment I want to set out the policy context. The provisions of the PDP in respect of rural character and amenity, seek to:
 - (a) Maintain rural character and amenity³¹;
 - (b) Maintain or enhance the attributes of areas and features valued for their contribution to landscape values and visual amenity³²;
 - (c) Recognise that rural character and amenity values vary across the zone³³;

³¹ Objective GRUZ-O1(4) & Objective GRUZ-O3.

³² Objective GRUZ-O3(2).

³³ Policy GRUZ-P3.

- (d) Recognise that buildings and structures associated with farming and forestry and other operational structures for productive rural activities can contribute to rural character and amenity values³⁴;
- (e) Enable activities provided that they are in keeping with rural character and amenity³⁵;
- (f) Manage the scale, intensity and built form of industrial and commercial activities to maintain rural character³⁶;
- (g) For industrial and commercial activities maintain an appropriate level of amenity for neighbouring sites³⁷; and
- (h) Manage the size and location of buildings and structures to maintain adequate levels of outlook, daylight and privacy for adjoining sensitive land uses, and to maintain rural character, amenity and landscape values³⁸.
- 88. As further context to my assessment, I note that the Hearings Panel for the PDP addressed rural character and amenity in their decisions on the GRUZ:
 - 5.18 Objective 5.3.1 and Policy 5.3.2 relate to rural character and amenity. The notified provisions were of limited assistance in providing useful guidance on these subjective concepts when applied to Waikato District. Mr Clease [the author of the s42A report for the rural zone hearings] recommended the retention of a brief objective seeking to maintain rural character and amenity, complemented by a lengthy policy articulating the elements that make up rural character and amenity in the context of Waikato District. We note that Mr Clease's recommendations on this matter were largely supported in submitter evidence (or at least were not actively opposed). Alternative wording was provided by Horticulture New Zealand which provided a helpful point of comparison regarding alternative policy drafting approaches. We recognise the challenge in clearly articulating policy direction for subjective concepts such as character and amenity, especially in the context of a single Rural Zone that covers considerable diversity of landscape, topology, farming systems, and a range of nonfarming activities that nonetheless are typically to be found in rural areas.
 - 5.19 We are mindful of the need to provide clear policy direction to help guide decisions on future resource consent application for activities that will require an assessment of their potential effects on rural character and amenity. As such, policy 5.3.2 plays an important rule in setting out what

³⁴ Policy GRUZ-P4.

³⁵ Policy GRUZ-P5.

³⁶ Policy GRUZ-P6(2)(a).

³⁷ Policy GRUZ-P6(2)(b).

³⁸ Policy GRUZ-P16.

these matters are and how they should be managed. We have structured this policy so that the first section describes the diversity of character to be found in the district's rural areas, with the second part containing the various elements and activities that characteristics an area as rural (and therefore are to be anticipated in the future as being an appropriate outcome in rural areas).

89. The policies referred to above being:

GRUZ-O3 - Rural character and amenity

- 1) Maintain rural character and amenity.
- 2) The attributes of areas and features valued for their contribution to landscape values and visual amenity are maintained or enhanced.

GRUZ-P3 – Contributing elements to rural character and amenity values Recognise that rural character and amenity values vary across the zone as a result of the natural and physical resources present and the scale and extent of land use activities.

- 90. The policy context and explanation above confirm that the rural zone can have diverse characteristics depending on its setting, the focus is therefore ensuring that activities maintain the rural character of that setting and an appropriate level of amenity.
- 91. Detailing with amenity first, Ms Carmine's assessment is silent on amenity effects. This is perhaps for two reasons.
- 92. Firstly, many factors contribute to the perception of an area's amenity values. These values or factors can vary from individual to individual and can be inherently subjective to evaluate, particularly when there are no submissions in opposition from adjacent landowners to warrant further detailed analysis of these matters. Furthermore, 8 of the 9 adjacent landowners have provided their written approval to the Applications³⁹, thereby implying that they accept the retirement village on their boundaries and the resulting built-form outcomes (including its treatments/design outcomes⁴⁰) and the resulting amenity effects. In my opinion, this is because the retirement village already exists there.
- 93. Secondly, a number of the perceived amenity effects can be managed by how the site has been designed to interact with neighbouring land and similarly other amenity effects (such as dust, noise, traffic etc) can also be managed or are no different to that already experienced in the existing environment.

³⁹ The effects of those parties must not be considered by the consenting authority as per section 104(3)(a)(ii) of the RMA.

⁴⁰ Landscape design, building offsets to external boundaries, good connectivity with existing village and the appearance of a natural continuation of the village.

- 94. The issue of maintaining rural character is more complex. It is not disputed that the development outcome will initially result in a noticeable change in the built form of the sites and their current outlook as they transition from a few buildings to fully developed sites. In some rural settings, this change would be unacceptable, and inappropriate and would not maintain the rural character of that setting. Such an example of this may be a new retirement village surrounded by larger rural and rural lifestyle lots. In this situation, however, it is my opinion that you cannot discount the current character of the existing environment and the size of the sites subject to the Applications when concluding whether rural character effects will be maintained.
- 95. The character of this environment is heavily influenced by the existence of the existing retirement village, the commercial activities on 70 Tamahere Drive and the adjoining rural lifestyle lots with an average size of 2ha, which each contain large dwellings and supporting curtilage areas. I therefore do not agree that the sites themselves have strong rural characteristics or that we have understated the rural characteristics of the sites. Yes, the sites within the Southern Extension have a low density of built form and open space, but in reality, the size of each of those individual titles diminishes their character values relative to other or larger rural zones sites.
- 96. Ms Soanes, in her evidence has also traversed this matter and records that:
 - (a) It is important when focusing on character to not just focus on generic attributes (such as ruralness or naturalness). Only focusing on landscape types can unnecessarily distract from the whole landscape, the specific landscape and the overarching concepts and principles that apply to all landscapes – which many in turn lead to the overlooking of a specific character.
 - (b) The rural zone is a broad concept and is defined by the various elements that make up the rural environment. The existing landscape character in and around the site influences the effects of the proposed Extensions on the surrounding landscape character and visual amenity values.
 - (c) The primary perception of the proposal will be that of an extension to the existing village. Within the context of the surrounding rural landscape, the proposed Extension will have a low adverse effects on existing landscape character values, even though there will be a change in existing characteristics at the local level (within the proposed Extension sites), particularly related to building density.
- 97. In reaching the above conclusions, Ms Soanes also draws on the design mitigation that has been built into the design of the extension sites particularly

the southern interface. In this respect, the southern interface has been designed to ensure appropriate integration and interface between the proposed retirement village extension and adjoining rural land through substantial planting, and the proposed building setbacks. Collectively these elements ensure that the outcome will maintain a high degree of amenity and open space character to those adjoining sites.

98. In conclusion Ms Soanes records that:

"Overall, the proposed extension will read as a logical additional to the TCC development. With the design and mitigation measures the diverse rural characteristics of the surrounding areas and the retirement village interface with the rural zone to the south of the site can be maintained."

99. Based on the evidence of Ms Soanes and my assessment above in relation to amenity effects, it is my opinion that the Southern Extension site will maintain rural character and amenity values of the existing environment and responds positively to the surrounding context, regardless of the fact that there will be a noticeable change on the sites themselves. In my opinion, this level of effect is minor and not more than minor because it will be noticeable but will not cause significant adverse impacts.

Precedent and cumulative effects

- 100. Ms Carmine has not specifically addressed cumulative effects in her effects assessment but has made various statements about such effects in the s42A Report, particularly when she addressed the issue of settlement patterns. Statements made include that:
 - (a) A transition of this site from rural character to urban character will add to the cumulative loss of rural characteristics in the area.
 - (b) I am concerned cumulatively adding little by little, as has been done through a series of applications to date, results in a cumulative incremental change from rural character to urban character. From a planning perspective this approach is an example of planning creep and results in cumulative adverse effects to rural character.
 - (c) The increase in villas, for the Southern Extension, is not inconsequential in terms of cumulative effects on planned settlement patterns and growth.
- 101. I do not disagree that, at face value, these Applications will result in a cumulative effect, being that the consents sought are for an activity that is not expected in the existing environment. Whilst that is the case, the fact that the applications are for an expansion, are directly adjoining the existing TCC village, are near the

Tamahere village, will occur across some land that is already used for non-rural purposes or will only result in negligible loss of HPL at a district level means that the overall cumulative effect of the expansions, in my opinion, are low. Ms Soanes in her evidence also reaches a similar conclusion, stating that the development would not result in a piecemeal or fragmented development pattern that would erode the character of the rural landscape over a wide area, and the landscape has the capacity to accommodate the proposed development without undue consequences on its underlying values and character.

- 102. For precedent and district plan integrity Ms Carmine has concluded⁴¹ that for the Eastern Extension she does not consider that district plan integrity will be compromised, but for the Southern Extension she is *"not convinced that the nature of the activity in this case make the proposal material indistinguishable from other settlement areas where there are clusters of non-rural uses but for which are rurally zoned or adjoin rural zoned land."* In reaching this conclusion, Ms Carmine has focused on all types of non-rural uses that could arise, and not specifically proposals for expansions of a retirement village. This is where our assessment differs.
- 103. In my opinion the 'unusual' or 'distinguishable' features that would differentiate these Applications from other similar applications are the following points:
 - (a) The proposal is an expansion of an existing retirement village, not a bespoke new retirement village. Regardless of the extension site's rural zoning, the expansion sites directly adjoin the existing TCC village, and the site is welllocated in terms of proximity to the Tamahere village. This means that the expansion will be viewed in the context of that existing environment, and over time will read as if it has always been part of the TCC village. For the Eastern Extension this is particularly pertinent as that landholding is surrounded by the TCC village. Furthermore, parts of those titles are already being used for non-rural activities.
 - (b) The fact that the TCC village is zoned rural is also unique. In this respect, two retirement villages in the locality⁴² have recently been rezoned Rural Lifestyle Zone in the PDP from a historic rural zoning or site scheduling in the ODP. This change is understood to have been, as a result of submissions to the PDP by those parties and to acknowledge those existing activities and the fact that they are not rural activities. Sanderson was not active participants in the PDP process and if they had been they would have

⁴¹ In section 6.6.3 of the s 42A Report – being the s104(1)(c) Assessment.

⁴² Tamahere Eventide Home at 158 Matangi Road and their site at 61 Bollard Road, Tamahere.

requested a similar zoning across their existing village. The TCC village is by default a unique situation.

- (c) The design of the southern extension does not provide opportunities for further expansion of the village to the west or south, through the physical barriers proposed (i.e. bunds, planting and swale).
- 104. These matters, and particularly the first point, is the key point of difference from a precedent perspective to give confidence that this proposal will not be a catalyst for substantive integrity issues with the PDP framework.

Positive Effects

- 105. Positive effects are an important consideration in terms of the effects assessment. Section 7.10 of the AEE listed a number of positive effects, as does the evidence of Mr Sanderson.
- 106. Ms Carmine has recorded⁴³ that she agrees with the positive effects noted.

Summary of Environmental Effects

- 107. For the reasons outlined above, in my opinion, the actual and potential adverse environmental effects can be appropriately managed and mitigated to be minor, at worst, with most effects being less than minor.
- 108. Key to these conclusions is the consideration of the existing environment, the scale and location of the built form and the extension connections to the existing transportation and three waters networks, the extensive landscaping (including mitigation planting) and the fact that the majority of the land is not available for productive land uses as of today. There will be a loss of high-class soils and rural character for the sites, however, in a site and district context this loss is considered to be appropriate and not more than minor.

SECTION 104 ASSESSMENT

- 109. The analysis required under s104(1) is, subject to Part 2, to have regard to:
 - (a) any actual and potential effects on the environment of allowing the activity; and
 - (ab) any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity; and
 - (b) any relevant provisions of:

⁴³ Section 6.4.1 of the s 42A Report.

- (i) a national environmental standard:
- (ii) other regulations:
- (iii) a national policy statement:
- (iv) a New Zealand coastal policy statement:
- (v) a regional policy statement or proposed regional policy statement:
- (vi) a plan or proposed plan; and
- (c) any other matter the consent authority considers relevant and reasonably necessary to determine the application.
- 110. I address these matters, in turn below.

Assessment of Environment Effects (Section 104(1)(a))

111. I have summarised the effects of the Applications earlier in my evidence.

Offsetting or Compensatory Measures (Section 104(1)(ab))

- 112. Section 104(1)(ab) of the RMA requires a consent authority to have regard to any measure proposed or agreed by an applicant to ensure positive effects by offsetting or compensating for any adverse effects on the environment.
- 113. I consider that no such measures apply, and none have been proposed by the Applicant because the effects of the proposal do not require such.

Relevant Planning Provisions (Section 104(1)(b))

- 114. The potentially relevant statutory planning documents for this Application, for the purposes of s104(1)(b) of the RMA are:
 - (a) National Policy Statement for Highly Productive Land (NPS-HPL);
 - (b) Te Ture Whaimana o Te Awa o Waikato (Te Ture Whaimana);
 - (c) Waikato Regional Policy Statement (RPS); and
 - (d) The District Plan(s).
- 115. The provisions of each are discussed below.

National Policy Statement for Highly Productive Land

- 116. The NPS-HPL came into effect on the 17 October 2022. The overarching aim of the NPS-HPL is to ensure the availability of New Zealand's most favourable soils for food and fibre production, now and for future generations.
- 117. The NPS-HPL contains one objective, nine policies and several implementation methods. It is my opinion that the objective and policies 1, 2, 4, 6, 8 and 9 of the NPS-HPL are relevant to this application. The key policy, being Policy 8, which states:

Highly productive land is protected from inappropriate use and development.

- 118. The policies of the NPS-HPL that are of relevance to this Application do not contain language which directs that certain effects or outcomes are to be avoided. Rather policy 8 requires that the protection of highly productive land and that the use of highly productive land for land-based primary production is prioritised and supported.
- 119. Policy 8 is implemented through Clause 3.9. Clause 3.9(1) states:

Territorial authorities must avoid the inappropriate use or development of highly productive land that is not land-based primary production.

- 120. Therefore, the starting point for assessment of these applications (under the NPS-HPL) is that inappropriate use or development of highly productive land that is not land-based primary production is to be avoided (Clause 3.9(1)). Clause 3.9(2) provides a list of essentially deemed appropriate exceptions. The nature of the Applications sought are not provided for by one of those exemptions. The assessment therefore defaults to Clause 3.10.
- 121. Clause 3.10 provides a series of specific tests to determine whether there are permanent or long-term constraints on the site that justify the HPL being used for a purpose that is not land-based primary production. The Clause 3.10(1) tests and an assessment of the proposal against them are as follows.
- 122. The first test (Clause 3.10(1)(a)) is that: there are permanent or long-term constraints on the land that mean the use of the HPL is not viable for at least 30 years, and it can be demonstrated that the constraints mean that land-based primary production on the site cannot be economically viable for at least 30 years. Clause 3.10(2) sets out the matters to be evaluated including matters such as:
 - a. Alternative forms of land-based primary production;
 - b. Improve land-management strategies;
 - c. Alternative production strategies;

- d. Water efficiency or storage methods;
- e. Reallocation or transfer of water and nutrient allocations;
- f. Boundary adjustments (including amalgamation); and
- g. Lease arrangements.
- 123. An assessment of the first test is provided in Mr Hunt's evidence, whereby he concludes that the requirements of this test are satisfied for the following reasons:
 - (a) The site has permanent and long-term constraints that impact long-term productivity, including non-reversible land fragmentation, small scale of operation, and modified and anthropic soils.
 - (b) Taking these factors into consideration the land is not economically viable for at least 30 years nor is there any opportunity to increase scale to make them viable.
- 124. The second test (Clause 3.10(1)(b)) relates to the avoidance of significant losses of productive capacity of HPL; the avoidance of fragmentation of large and geographically cohesive areas of HPL and the avoidance or mitigation of reverse sensitivity effects. An assessment of this test is also provided in Mr Hunt's evidence whereby he also concludes that the requirements of this test are also satisfied for the following reasons:
 - (a) The scale of loss, at 3.01ha, will not cause a significant loss within the district both individually or cumulatively.
 - (b) The development avoids additional fragmentation, particularly of large and geographically cohesive areas, given the heavily modified and fragmented nature of the site.
 - (c) The proposal will not give rise to reverse sensitivity effects on surrounding land-based primary production because pastural grazing is the only production type likely in the area for the foreseeable future.
- 125. The third test (Clause 3.10(1)(c)) requires an assessment of whether the environmental, social, cultural and economic benefits of the development outweigh the environmental, social, cultural and economic costs associated with the loss of the HPL, taking into account both tangible and intangible values. That assessment I undertook in the AEE (see Table 8.1) and that undertaken by Mr Hunt in Section 5.3 of the AgFirst report and in his evidence, demonstrates that the benefits of the proposed development outweigh the costs associated with the loss of HPL when considered over the long term. On this basis, this requirement is also satisfied.

- 126. Clause 3.10(2) requires the Applicant to demonstrate that permanent or longterm constraints on economic viability cannot be addressed through any reasonably practicable options that would retain the productive capacity of the land. The supporting AgFirst report and specifically their detailed economic analysis and alternative assessment⁴⁴ has confirmed that none of the seven indicative options provided for under Clause 3.10(2) would address the economic viability constraint either in the short term or the long (30 year) term for the following reasons:
 - (a) Insufficient scale for alternative land-based primary production (dairy farm, dairy support farm, arable or cropping or horticulture), no adjoining land to increase scale, would require significant capital outlay, may cause off-site nuisance effects (cropping noise and dust) and not economically viable.
 - (b) The constraints of irreversible land fragmentation and small scale cannot be overcome by land management strategies.
 - (c) The size does not apply for alternative land based primary production or diversification.
 - (d) Irrigation would require substantial investment and would not be economic.
 - (e) No additional surrounding rural land for expansion, amalgamation of lease due to small non-contiguous nature of adjoining properties.
- 127. Clause 3.10(3) requires the evaluation under subclause (2) to not take into account economic benefits, must consider the impact that the loss of HPL would have on the landholding which the HPL occurs and must consider the future productive potential of land-based primary production on HPL not limited by its past or present uses. Table 7 of the AgFirst Report provides this assessment and notes that:
 - (a) The assessments of reasonable practicable options have been made independent of any potential economic benefit.
 - (b) The impact of the proposed land use change will have on the remaining HPL is negligible, it is already at a small and insufficient scale to be economic, as indicated by the gross margin analysis.
 - (c) The highest and best land-based primary productive use for the site, both now and future, is pastoral grazing at a sustainable stocking rate. There are

³³

⁴⁴ Table 6 - Tamahere Country Club Assessment Against NPS-HPL by AgFirst.

no additional reasonable and practicable land management strategies for improving the productive capacity of the site.

- 128. On this basis, this requirement is also satisfied.
- 129. To conclude, there is no question that the objective of the NPS-HPL is to protect highly productive land for land-based primary produce, and this policy was brought about because of a widespread concern about the loss of a need to safeguard those life-supporting soils for primary production. However, the NPS-HPL does not require an absolute avoidance of alternative land uses. Clause 3.10 provides guidance on exceptions/exemptions to the avoidance imperative in a series of satisfaction tests. Being a satisfaction test entails a judgment.
- 130. Using this test and for the reasons set out above and in the supporting AgFirst reporting/Mr Hunt's evidence, it is my opinion that the satisfaction tests of Clause 3.10 of the NPS-HPL can be satisfied, the loss of HPL is negligible and that the proposal is therefore not inconsistent with the NPS-HPL.
- 131. I also record that Ms Carmine and Mr Ford have reached similar conclusions.

<u>Te Ture Whaimana</u>

132. The overarching objective of Te Ture Whaimana (the Vision and Strategy) is the restoration and protection of the Waikato River. It is my opinion that the proposal is consistent with the Vision and Strategy stormwater and wastewater management measures and will ensure that contaminant discharges are avoided off site and minimised on site and will not affect the downstream environment and the health and wellbeing of the Waikato River. The development outcome also provides for native planting which will have environmental and biodiversity benefits.

Waikato Regional Policy Statement

- 133. The RPS, including Change 1⁴⁵, sets out the key resource management issues for the Waikato Region which the lower-order regional and district plan objectives and policies are required to give effect to and to which decision makers for resource consents are required to have regard to. Accordingly, I address the RPS at a relatively high level as the PDP has been developed to give effect to the provisions of the RPS direction.
- 134. In my opinion, the RPS requires:

⁴⁵ Change 1 to the RPS incorporated changes to implement the NPS-UD and to update the Future Proof components in the RPS.

- (a) Integrated management of natural and physical resources, and the efficient use of resources⁴⁶;
- (b) Recognition of the benefits of the use and development of natural resources⁴⁷;
- (c) Recognition of tangata whenua values and the ability to use and enjoy natural resources⁴⁸;
- (d) Amenity be maintained or enhanced⁴⁹;
- (e) The protection of high class soils for primary production⁵⁰;
- (f) The management of the built environment to achieve appropriate environmental outcomes, and the adoption of the Future Proof growth strategy⁵¹.
- 135. In the AEE, I identified that the Applications are not entirely consistent with the RPS and specifically the policy changes from plan change 1, due to the proposal being in an area outside of identified areas for urban growth, however, based on the effects-based assessment undertaken I considered that the Applications were still appropriate. I also provided a detailed assessment of the APP11 principles to guide future development of the built environment.
- 136. Ms Carmine has reached a different conclusion which I examine below.
- 137. Ms Carmine states the development is remote, is not located near job markets and thus relies on vehicle use and does not create a compact urban form to be a well-functioning urban environment. In my opinion, these statements do not take into consideration the form of development proposed, being that it is retirement living, nor does it consider the range of services already provided for on-site or the sites location. This is a view I share with Mr Apeldoorn. Retirement village occupants have differing needs than those in standard residential developments for private car usage. As set-out in Mr Apeldoorn's evidence the motor vehicle trip generation rate for retirement villages (0.3 trips per unit peak hour) is at a level just one quarter the level generated by a typical suburban dwelling (1.2 trips per dwelling peak hour)⁵². The drive to minimise car movements and rely on public transportation opportunities to provide for greenhouse gas emission reductions is therefore an immaterial matter for

⁴⁶ Objective Im-O1 and Policy Im-P1 of the RPS.

⁴⁷ Objective IM-O2 of the RPS.

⁴⁸ Objective IM-O7 and Policy IM-P3 of the RPS.

⁴⁹ Objective IM-O9 of the RPS.

⁵⁰ Objective LF-O5, Policy LF-P8 and Policy LF-P11 of the RPS.

⁵¹ Objective UFD-O1, Policy UFD-P1, and Policy UFD-P11 of the RPS.

⁵² Paragraph 45(f)(v) – Mr Apledoorn EIC.

consideration for these Applications. Public transport opportunities (other than those provided by Sanderson) also exist within the environment and are within walking distance of the site. There are good walking and cycling connections through the site and to the surrounding area as further detailed in the evidence of Mr Apeldoorn.

- 138. Another matter of concern for Ms Carmine is that the development is inconsistent with the RPS (and Future Proof specific provisions) because it is located outside an identified growth cell or village enable areas and is ad hoc growth, even though it is an extension to an existing retirement village. I do not disagree that the site is not located within an identified growth cell. This is clear. It is my opinion, however, that we need to distinguish the Applications sought from those for a new retirement village site in a rural setting, or that of a more general form of residential activities (i.e. a traditional residential subdivision and development) in a rural setting and also consider the issue of demand and supply for housing for an aging population. I make these statements for the following reasons.
- 139. In the last few months the Future Proof Committee sought and heard submission on changes they are proposing to the Future Proof strategy, for the purpose of that document becoming a Future Development Strategy (**FDS**). As an FDS the intention is that the document will show how the intention is that it will spatially show how local authorities' intent to achieve 'well-functioning urban environments', and how and where they will provide 'sufficient development capacity' to meet future growth needs over the next 30 years. On behalf of other retirement village clients, I prepared submissions on the Future Proof Strategy and in doing so brought to the fore the following issues:
 - (a) The Retirement Village Association has recorded⁵³ that the shortfall of appropriate retirement housing and care capacity to cater for that population is already at a crisis point (i.e. demand is outstripping supply). Delays and uncertainty caused by the national policy direction and the RMA processes are a majority contributor.
 - (b) Future Proof (and other growth strategies such as Waikato 2070) have tried to address the required demand for an ageing population by rezoning sufficient land for residential purposes. The issue with this approach is that retirement villages are most often not what residential neighbours want, nor do some district plans specifically anticipate or enable them. Retirement villages are also best delivered comprehensively and at scale, which means they are expensive to deliver and require large landholdings. Retirement

⁵³ Refer paragraph 2 of the Legal Submission on behalf of the Retirement Villages Association of New Zealand Incorporated and Ryman Healthcare Limited on PC26 to the Waipa District Plan.
villages are a residential activity but have some notable differences to other residential activities. They have unique functional, operational and other needs which differentiates them from other forms of residential development.

- (c) While it may appear that there is residential development capacity for retirement villages, I understand from retirement village providers that it may not be sufficient to accommodate a retirement village of the required size to provide the full range of services sought by the various retirement village providers. In terms of size, recent examples in Hamilton, Cambridge, Te Awamutu show that retirement village operators are looking for landholdings between 8-25ha to establish. In a number of cases, such land sizes are divided among multiple landowners, creating challenges in securing a suitable site (regardless of zoning). The evidence of Mr Sanderson goes into more detail around this matter, where he describes the challenges they have faced finding alternative sites.
- 140. I concluded those submissions by noting that there needs to be a better way of providing for retirement village living outside of identified growth cells and requested that specific changes be made to Future Proof (and by default the RPS) to enable a gateway for retirement village-specific development.
- 141. Whilst decisions have not been released yet on Future Proof, the report to the Future Proof hearings Sub-Committee on out-of-sequence and unanticipated development proposal records⁵⁴ that the Future Proof Implementation Committee has already resolved that their first Implementation Plan⁵⁵ will engage with the retirement village sector to better understand their needs and review the strategies approach to these needs. In my opinion, this statement is a recognition by Future Proof that housing for an ageing population requires further examination and that they may not have got their policy framework right in relation to this matter and that in some cases such growth may be appropriate.
- 142. It is also worth noting that whilst Hamilton City Council expressed an interest in the application initially and the regional council provided formal comments to this effect, neither party nor Future Proof, was concerned enough to lodge a submission on the Applications. In my experience, if those parties were

⁵⁴ Paragraph 14(C)(iv) of the Report to Future Proof Hearing Sub-Committee for information – hearing report – outof-sequence and unanticipated development proposals (pdf page 51 of hearing agenda).

⁵⁵ The NPS-UD also requires that an Implementation Plan be prepared for the FDS. The Implementation Plan doesn't form part of the FDS itself but is a standalone document that is updated annually. It is intended that the Future Proof Implementation Plan will contain key actions, responsibilities, timeframes and resourcing. As Implementation plans are not required to be publicly consulted on, this will be prepared in conjunction with the final version of the Strategy.

concerned with the proposal's apparent inconsistencies with the RPS and Future Proof directive they would have become parties to these Applications.

- 143. Turning now to supply and demand. In preparation for this hearing, Sanderson engaged Ms Angela Webster of Webster Research to assess the net latent demand for additional retirement village provision in Tamahere. That assessment can be found in **Annexure B** of this evidence. Key points from this research that substantiate the demand for the proposed retirement villas are as follows:
 - (a) TCC aligns with several of the latest industry trends, including destination retirement villages, clustering, and regional pull.
 - (b) The number of residents living in the primary catchment area⁵⁶ aged 70+ from 6,945 in March 2018 (Census) to an estimated 8,290 in June 2023; this cohort increased from 7.8% of the total population in 2018 to 8.1% in 2023. For the secondary catchment area⁵⁷ the number of residents aged 70+ increased from 11,514 in March 2018 (Census) to an estimated 14,690 in June 2023; this cohort increased from 9.6% of the total population in 2018 to 10.8% in 2023.
 - (c) Within the primary and secondary catchment areas, the number of residents aged 70+ is forecast to increase from 23,780 in 2024 to 44,240 in 2048, a growth of 20,460.
 - (d) Within the primary catchment areas there are estimated to be 1,000 retirement village units spread across 11 retirement villages. Approximately 2,005 retirement village units are distributed among 15 retirement villages in the secondary catchment area.
 - (e) Vacant data has revealed only a few villas and townhouses available in the areas.
 - (f) There is evidence of retirement village development pipeline within both the primary and secondary catchment areas in the form of new villages and expansions to existing villages.
 - (g) The net latent demand model results indicate that by 2043, 6,580 retirement village units will be in demand in the area. When the existing supply and

⁵⁶ The primary catchment reflects a 10km radius around the TCC site as shown in Map 5 of the Webster Research Report.

⁵⁷ The secondary catchment reflects the 10-20km radius around the TCC site as shown in Map 6 of the Webster Research.

development pipeline is subtracted, the net latent demand is calculated at 2,015 units, or 84 units annually over the forecast period (the next 20 years).

144. To conclude, I stand by my assessment that the proposal is not entirely consistent with the RPS, but that the inconsistencies are appropriate because they represent an extension of an existing retirement village, there are apparent deficiencies in how Future Proof (and thus the RPS) provides for retirement village demand and because demand for further retirement village accommodation has been demonstrated in the supporting demand analysis.

<u>Waikato District Plan</u>

- 145. A full assessment of the objectives and policies of the ODP and PDP is contained in the AEE. For this evidence, I have focused my assessment on PDP and the provisions that are most relevant and/or in contention.
- 146. The PDP includes a strategic direction chapter. This chapter provides the overarching direction for the District Plan and has primacy over the objectives and policies in the other chapter of the plan⁵⁸. Of direct relevance to this application are the strategic direction objectives and policies that relate to:
 - (a) The district having a thriving economy (SD-O1);
 - (b) Tangata whenua's interests being recognised and provided for (SD-O2);
 - (c) A variety of housing types are available to meet the community's housing needs (SD-O4);
 - (d) New development is integrated with the provision of infrastructure (SD-O5);
 - (e) High quality soils are protected from urban development, except in areas identified for future growth in the District Plan (SD-O8);
 - (f) The rural environment provides for a range of rural activities, including primary production and food supply (SD-O9);
 - (g) Existing activities are protected from reverse sensitivity effects (SD-10).
- 147. The evidence of Mr Sanderson provides some context to the economic contribution the existing development has to the District. This contribution is significant (i.e. over \$200M in developing the village and wages and has an annual rates bill of close to \$500M for this financial year) and demonstrates consistency with objective SD-O1.

⁵⁸ As recorded in the introduction to the Strategic Direction Chapter.

- 148. Tangata whenua interests are being recognised through a partnership approach with Ngāti Haua. Similarly, the development outcome is integrated with the provision of existing infrastructure, at no burden to Council. The Applications are consistent with objectives SD-O2 and SD-O5.
- 149. The housing variety objective encourages a variety of housing types to meet the community's housing needs. An extension of the TCC village will, as demonstrated by Mr Sanderson and as supported by the Webster research, provide for an alternative lifestyle choice for an aging population in a location where that form of landuse has already been established, where it is thriving and where there is demand. The existing TCC village provides a unique style of living for the elderly due to the scale, design and quality of facilities and landscaping/open space provision, such that it provides a more comfortable style for those who are aging that have lived in a rural environment for most of their lives. This is a specific design outcome that Sanderson has sought, to be a better fit with the Tamahere Village and its surrounds than that found in more traditional high density retirement villages in urban environments. The proposal is consistent with objective SD-O4.
- 150. The highly productive soil objective seeks to ensure that high quality soils are protected from urban development, except in areas identified for future growth. As recorded earlier, the site contains high class-soils and is not in a future growth area. The expansion will therefore result in a loss of high class soils (approximately 3ha) which may otherwise be suitable for productive rural activities. As such, the proposal is not entirely consistent with objective SD-O8. That being said, the value of that productivity has been quantified by Mr Hunt as being a negligible loss, at a district scale, due to the severe limitations and long-terms constraints he has identified.
- 151. The rural activity objective seeks to ensure that the rural environment provides for a range of rural activities, including primary production and food supply. As noted above, the sites subject to the extension are used for rural lifestyle activities, a commercial business, and a Christmas tree farm and are therefore not traditional rural activities. The lot sizes are also relatively small, on a rural scale, so their potential to be used for a range of rural activities, including primary production and food supply is limited. Whilst on face value the proposal is inconsistent with objective SD-O9, there are mitigating circumstances as to why the land use change sought is appropriate. It is important to recognise that the change also supports an existing consented activity so, in my opinion, the Applications need to be considered in that context.
- 152. The reverse sensitivity objective seeks to ensure that the existing activities are protected from reverse sensitivity effects. In this circumstance this would be

ensuring that adjacent rural land-uses, where they occur, can continue to lawfully operate. The expansion does not create any significant risk of reverse sensitivity effects, nor have any been raised by the adjacent landowners who have provided written approvals so the reverse sensitivity effects on those parties can be set aside.

153. Ms Carmine also considers that the urban form and development objective is relevant. This objective states:

UFD-O1 Urban Environment A compact urban form that provides for connected, liveable communities.

- 154. Ms Carmine assesses that the proposal will not create a compact urban form, due to the tensions of the application with the rural zoning and surrounding rural character that seek more open space low-density form and because further growth on the fringes of growth areas contributes to the erosion of compact urban form. In Ms Carmine's opinion, the proposal is therefore contrary to this objective.
- 155. I disagree with Ms Carmine. Firstly, this objective is for an urban environment, so in my opinion is not relevant for consideration. Secondly, if it was found that it was relevant the counterargument is that whilst the retirement village is expanding onto rural zoned land it is doing so as an extension of the existing village and in a manner that integrates with the existing village to create a compact urban form. The development outcome is not leap-frogging rural zoned land to create separation between the site and the existing TCC village.
- 156. GRUZ includes objectives and policies that align with the Strategic Direction discussed above, and with a focus of ensuring that the zone is predominantly used for primary production activities. The objectives and policies most relevant include the following [emphasis added]:

GRUZ-O1 – Purpose of the Zone

- 1) Enable farming activities;
- 2) Protect high class soils for farming activities;
- *3) Provide for rural industry, infrastructure, rural commercial, conservation activities, community facilities, and extractive activities;*
- 4) Maintain rural character and amenity;
- 5) Limit development to activities that have a functional need to locate in the zone.

GRUZ-O2 – *Productive capacity of soils The primary productive value of soils, in particular high class soils, is retained*.

GRUZ-O3 – Rural character and amenity1) Maintain rural character and amenity.

2) The attributes of areas and features valued for their contribution to landscape values and visual amenity are maintained or enhanced.

GRUZ-P1 – High class soils

Ensure the adverse effects of activities do not compromise the physical, chemical and biological properties of high class soils.

GRUZ-P2 – Effects of subdivision and development on soils. Subdivision, use and development minimises the fragmentation of productive rural land, particularly where high class soils are located.

GRUZ-P3 – Contributing elements to rural character and amenity values Recognise that rural character and amenity values vary across the zone as a result of the natural and physical resources present and the scale and extent of land use activities.

GRUZ-P4 – *Productive rural activities*

Enable the on-going use of the rural environment zone as a productive working environment by:

- a) Recognising that buildings and structures associated with farming and forestry and other operational structures for productive rural activities contribute to rural character and amenity values;
- b) Ensuring productive rural activities are supported by appropriate rural industries and services;
- c) Providing for lawfully-established rural activities and protecting them from sensitive land uses and reverse sensitivity effects; and
- *d) Recognising the economic, social and cultural benefits that result from use and development of rural resources.*

GRUZ-P5 – Other anticipated activities in rural areas

Enable activities that provide for the rural community's social, cultural, and recreational needs, subject to such activities being of a scale, intensity, and location that are in keeping with rural character and amenity values.

GRUZ-P13 – Reverse sensitivity and separation of incompatible activities

- 1. Contain, as far as practicable, adverse effects within the site where the effect is generated.
- 2. Provide adequate separation of the activity from the site boundaries.
- 3. Ensure the new or extended sensitive land uses achieve adequate separation distances from and/or adopt appropriate measures to avoid, remedy or mitigate potential reverse sensitivity effects on productive rural activities, intensive farming, rural industry, infrastructure, extractive activities, or Extraction Resource Areas.

GRUZ-P15 – Retirement villages

Provide for alterations and additions to retirement villages existing or subject to a resource consent at 17 January 2022.

GRUZ-P16- Building scale and location

- 1. Provide for buildings and structures where they are necessary components of farming and rural-related activities including rural industry, rural commercial, and extractive activities.
- 2. Manage the size and location of buildings and structures to:

- a) Maintain adequate levels of outlook, daylight, and privacy for adjoining sensitive land uses and public reserves; and
- b) Maintain rural character, amenity and landscape values, in particularly where located in areas with high landscape values, the coastal environment, and adjacent to water bodies.
- 157. Whilst the key objective of the GRUZ is to enable farming activities, protect high class soil for farming activities, maintain rural character and amenity and limit development to activities that have a functional need to locate in the zone, there is also a policy specific for retirement villages This policy provides for *"alterations and additions to retirement villages existing or subject to a resource consent at 17 January 2022."* There is some debate about whether GRUZ-P15 provides for an expansion as proposed in this application, being that both the terms 'alteration'⁵⁹ and 'addition'⁶⁰ are defined in the PDP and generally refer to an extension of an existing structure or building, or the change in the characteristics of a building, as opposed to wholesale expansion of a village. However, if we set aside the definitions the policy clearly recognises that retirement villages exist in a rural environment, the activity is therefore not a unique activity.
- 158. Similar to Ms Carmine, I have reviewed the PDP submissions, the PDP s 42A Report for the rural zone and the rural zone Hearing Panel decisions to glean what the actual intent of the policy was. To be honest, the decision is less than helpful, however, what is clear is that the policy was introduced in response to the submission received from the Waikato District Council and other submitters⁶¹, was specifically drafted for the consideration of applications like these sought to provide for expansion of existing retirement villages and was not intended to be linked to the definition for alteration and addition in the PDP as has been applied by Ms Carmine. I set the reasons for reaching this conclusion, below.
- 159. The Council in their submission⁶² requested that Chapter 22 (Rural Zone) be amended to:

"... include provisions for new retirement villages to establish along with provisions for alterations and additional to existing retirement villages a Restricted Discretionary Activity."

160. The submission also records its reasoning for this request as follows:

⁵⁹ Alteration is defined in the PDP as being: "Means any change to the fabric of characteristics of a building and includes the removal and replacement of external walls, windows, ceilings, floors or roofs. It does not include maintenance and repair as defined."

⁶⁰ Addition is defined in the PDP as being: *"Means an extension to a structure or building which increases its size, height and volume, including the construction of new floors, walls, ceilings and roofs."*

⁶¹ John Cunningham for Aparani Retirement Village Trust – Submitter #251 and Sanderson Group Ltd – Submitter #775 that sought a discretionary activity status for retirement villages in the Rural Zone.

⁶² Submission number 697.

"Retirement villages have been provided for in the Residential Zone only. Council are seeking to include Retirement Villages in the Business Zone, Village and Rural Zones and to enable additions to existing retirement villages within the Country Living Zone. Retirement villages provide a range of housing options for older persons. New policies are required to support these proposed provisions."

161. In a policy context, the submission requested that a new policy be added in the Rural Zone which states⁶³:

"5.3.9A Policy – Retirement Villages

- (a) Provide restricted opportunities for retirement villages within 800m distance of towns and villages within the rural environment.
- 162. Council also proposed a restricted discretionary activity rule for new retirement villages or alterations to an existing village. The standards to apply related to matters such as minimum net site areas, location relative to public transport, servicing, living and service court requirements, building height etc⁶⁴.
- 163. The s 42A Report, prepared by Mr Clease addressed the retirement village provision submissions received⁶⁵. Below I quote the key points of his assessment and his recommendations [**emphasis added**]:
 - 469. Retirement villages provide a range of conditions that typically extends from independent living units and apartments, through to rest home, hospitals, and dementia-level care. Some facilities provide a range of services, whilst others will only provide a selection of services. Retirement villages are typically set within well-maintained landscaped ground with on-site parking and ancillary services. They are a necessary form of housing that meets the specific care needs of a part of the community, therefore need to be provided for in the district plan. The key issue for this hearing is whether such provision should be principally through the more urban zones that provide for residential activity as their core purpose, e.g. the Residential Zone and the Village Zone, or whether provision should also be made in the Rural and Country Living Zones.
 - 470. Whilst retirement villages range in size, most new villages are large complexes that provide a wide range of accommodation options and services. They also tend to have a reasonably dense built form, with numerous independent units through to large multi-storey rest home and hospital wings. Whilst typically set within landscaped grounds, they therefore have a built form, function, and appearance that is

⁶³ The submission records that Council acknowledge that further work will be required on this policy to ensure it can be supported by a s 32 evaluation.

⁶⁴ Refer to pages 440-44 of the Waikato District Council submission for the exact wording proposed.

⁶⁵ Paragraphs 464 – 480 of the Hearing 18 – Rural Zone s 42A Report by Jonathan Clease.

more urban than it is rural, as their form and function is urban. Given the size of new villages, it can be challenging to secure sites within existing townships that are large enough to accommodate the range of services required. The need to secure a large landholding, and combined with rural-zoned land generally being cheaper than urbanzoned land, can lead to pressure from retirement village operators to seek to develop rural-zoned sites. Apart from the challenge (and price) of securing sufficiently large sites, I am not aware of any functional or operational needs that would require retirement villages to locate in rural zones, especially as they require urban forms of infrastructure provision.

- 471. The National Policy Statement – Urban Development ('NPS-UD') requires Waikato District Council to undertake an assessment of demand for housing, and whether adequate serviced and zoned capacity is available for meeting that demand. It is anticipated that the adequacy (or not) of urban-zoned land will be a key focus of the upcoming hearings considering the hundreds of submissions seeking rezoning from rural to urban across the district. Ultimately, the district plan process will need to deliver sufficient zoned development capacity to meet anticipated demand, with an appropriate buffer or margin built in. There does not therefore appear to be any sectorspecific need to provide a more enabling route for retirement villages (as an urban activity) to locate in rural zones, on the basis that sufficient capacity (and greenfield land availability) has to be provided in and adjacent to townships in order for the district plan to give effect to the NPS-UD.
- 472. It is therefore recommended that the current Proposed Plan approach of new retirement villages being a non-complying activity in the Rural Zone under rule NC5 be retained, given that they are inherently urban rather than rural activities, and adequate urban-zoned capacity is required to be provided through the district plan process to meet the district's housing needs.
- 474. Whilst I am comfortable with the proposed non-complying status in the Rural Zone for new retirement village proposals that might arise in the future, **the Proposed Plan also needs to provide an appropriate framework for existing retirement villages**...
 - Sanderson Group [775] are the owners of a site at 650 Airport Road and 46 Tamahere Drive in Tamahere. The site has a rural zoning in both the Operative and Proposed Plans. A resource consent to develop a retirement village - 'Tamahere Country Club'
 has recently been granted (LUC0023/19.01 and LUC0156/20), and construction is understood to be underway...

- 475. It is acknowledged that existing facilities will need to adapt over time to meet changing needs and accommodation expectations in the aged-care industry. Some district plans include 'scheduling' as a tool for providing recognition of existing activities that are not otherwise provided for in the underlying zone provisions. The Operative Plan included the Atawhai Assisi village as a scheduled activity (therefore additions and alterations were permitted subject to meeting various building bulk and location rules). The Proposed Plan does not include a scheduled activities chapter for existing 'out of zone' activities. In the absence of a scheduled activity tool, it falls to either the zone rules to provide a suitable framework for existing facilities, or alternatively the facilities are left reliant on any existing resource consents.
- 476. An alternative is to consider (at a later hearing) whether these existing sites should be rezoned to Country Living or Residential as a better fit with their purpose and built form.
- 477. In the event that the current zoning is ultimately retained, it is recommended that a new permitted activity rule be added that provides for the operation and alteration of Atawhai Assisi village in the Rural Zone, with a similar permitted activity rule for the Eventide and Tamahere Country Club facilities in the Country Living Zone. Both rules should be subject to a condition that alterations do not increase floor area...
- 478. A restricted discretionary rule is likewise proposed for additions to or expansion of these existing villages, with a relatively discrete set of matters of discretion. The proposed matters of discretion are based on those sought in the Waikato District Council submission. An extensive restricted discretionary rule that includes considerable detail regarding unit sizes, outdoor living areas etc. is not considered necessary, noting that the general structure of the Proposed Plan is to minimise as far as possible lengthy, site-specific rules in the interests of maintaining a concise and easy-to-use plan structure. The generic zone rules relating to the number of dwellings or site coverage do not fit with the nature of retirement villages that are comprised of multiple small units or bedroom-based wings. An exclusion from the zone rules on these matters is therefore recommended, with appropriate outcomes relying on the matters of discretion to ensure an appropriate site-specific design that is compatible with its context. A consequential amendment is recommended for the policies relating to residential density and subdivision to recognise existing retirement village complexes and has been included in the recommended text changes to Policy 5.3.4 above.
- 164. The recommended amendments to Policy 5.3.4 from Mr Clease's s 42A Report reads as follows [**emphasis added**]:

Policy 5.3.4 – Density of dwellings and buildings within the rural environment (a) Retain open spaces to ensure rural character is maintained. (b) Additional dwellings support workers' accommodation for large productive rural activities.

Policy 5.3.4 – Density of Residential Units

- (a) Maintain an open and spacious rural character through:
 - (i) Providing for residential units as an ancillary element to farming and productive rural activities;
 - (ii) Limiting provision of residential units to no more than one per Record of Title, except for particularly large titles where a minimum of 40ha is provided for each residential unit;
 - (iii) Limiting the size, location, and number of minor residential units and requiring such units to be ancillary to an existing residential unit;
- (b) Provide for papakaainga housing within Maaori freehold land; and

(c) Provide for alterations and additions to retirement villages existing at date of decision 2021;

- 165. I also note that the restricted discretionary activity that Mr Clease proposed⁶⁶, that was intended to apply to TCC provided a pathway for alterations and additions that increased net floor areas and that the number of dwellings rule (along with others) does not apply. As described the increase in net floor areas is more than just increasing the size of existing buildings and was intended to enable additional residential units to be considered too.
- 166. Turning now to the Rural Zone Hearing Panel decisions. As I noted earlier the commentary in the hearing decision is relatively brief as it relates to its decision on how to address retirement villages and their potential expansion. What is more important is what it does not say and what decisions it made in relation to policies recommended by Mr Clease. In this regard, I record that the Hearing Panel broke up Policy 5.3.4 above into two policies. Those policies are 5.3.15 (or now GRUZ-P14) and 5.4.16 (or now GRUZ-P15). In doing so, it deliberately separated retirement villages from the density of residential units and seasonal workers accommodation.
- 167. In my opinion, the Hearing Panel may have overlooked the fact that the terms alterations and additions were defined in the PDP, but wanted to signal that because of the significant financial investments and the unique characteristics retirement villages have and the need they service, alterations or additions of existing villages were an expected outcome in the GRUZ. This view aligns with that of Mr Clease's, as recorded above, whereby he was recommending a more

⁶⁶ Refer Paragraph 481 of the Hearing 18 – Rural Zone s 42A Report.

lenient rule framework for additions or expansion of existing villages, of which TCC was listed as one, with a supporting policy framework.

- 168. I have also not specifically assessed GRUZ-P14 in relation to the density of residential units and seasonal worker accommodation, because in my opinion, this policy requires assessment when for secondary dwellings and not necessarily retirement villages of the scale sought by these Applications and as noted in Mr Clease's commentary above retirement villages have different characteristics to those land use outcomes.
- 169. In my opinion, relying heavily on GRUZ-P15, the intent of the policy as set out in the background documents to the decision on the PDP, and the fact that Applications represent an extension (or addition) to an existing retirement village that existed at the time of decision on the PDP, I conclude that the Applications are not contrary with the objectives and policies of the PDP as a whole even though there are inconsistencies with some of its objectives and policies.

Other Matters (Section 104(1)(c))

- 170. The only matters that I consider relevant under s104(1)(c) of the RMA, that I have not already addressed in this evidence, is the Tai Tumu Tai Pari Tai Ao, the Waikato-Tainui Environmental Plan (**WTEP**) and the Ngāti Hauā Environmental Management Plan.
- 171. These two documents, and the Applications consistency with them was addressed in sections 8.5.1 and 8.5.2 of the AEE, with the overarching conclusion being that the Application will be consistent with them. Ms Carmine confirms this conclusion in the s 42A Report⁶⁷.

SECTION 104D

- 172. Section 104D of the RMA establishes a 'gateway test' that acts as an additional test for non-complying activities to satisfy. In order to pass the gateway test, a consent authority must be satisfied that the adverse effects of the activity on the environment will be minor (s104D(1) (a)) or the activity will not be contrary to the objectives and policies of the district plan (s104D(1)(b)).
- 173. My evidence, and Section 7 of the AEE, have both concluded that there will be no adverse effects on the environment that are more than minor for either Application.

⁶⁷ See Sections 6.6.1 and 6.6.2 of the s 42A Report (pdf page 147).

- 174. Similarly, this evidence and Section 6 of the AEE, has concluded that the Applications are not contrary with the objectives and policies of either district plan as a whole even though there are inconsistencies with some objectives and policies. This conclusion heavily relies on the fact the PDP has a policy framework that supports additions to existing retirement villages.
- 175. It is therefore my opinion that the Applications sought for the expansion of the TCC village have passed both limbs of the gateway test required by s104D of the RMA.
- 176. Even if the Commissioner finds that GRUZ-P15 is not specifically relevant to the Applications, this evidence has demonstrated that one limb of the s104D test is met. Having passed at least one limb, a substantive decision can be made having regard to s104 and s104B.

PART 2 OF THE RMA

- 177. All of the matters specified in s104 of the RMA, to which the consent authority must 'have regard to' are subject to Part 2 of the RMA which sets out the purpose and principles of the Act and which are central to the determination of the resource consent applications by a council.
- 178. Following recent direction from the Court, when determining an application, a consent authority is generally no longer required to consider Part 2 of the RMA beyond its expression in the relevant statutory planning documents, unless it is appropriate to do so.
- 179. There are two matters of potential inconsistency between the relevant planning documents, namely:
 - (a) The difference in the definition of Primary Production between the RPS and the PDP; and
 - (b) The difference between the NPS-HPL and the PDP as they relate to soils, with the NPS-HPL transitional definition identifying LUC 1, 2 and 3 soils as being 'highly productive' whereas the PDP focuses on high class soils (LUC 1 and 2).
- 180. Regardless, of the inconsistencies I have identified above, in my opinion, the planning context is clear. The Applications align with the relevant planning documents, as discussed at length in my evidence. For this reason, I do not consider that presenting a full assessment of the proposal against Part 2 would add anything to my evaluation or conclusion. However, for completeness it is my opinion that:

- (a) The Applications sought are consistent with s5 of the RMA. The extension of an existing retirement village will provide for the residential housing needs of an aging population in a location where retirement village living has already been determined as being appropriate. Furthermore, the evidence on behalf of the Applicant has established that the scale and density proposed is appropriate for the existing environment. Furthermore, the proposal will not compromise the life supporting capacity of air, water, and ecosystems. The loss of high-class soils is negligible when considering it in the wider context, having regard to the existing uses on the extension sites and considering its low productive value.
- (b) While the development is not entirely consistent with the objectives and policies of the district plan relating to non-rural land uses in the rural zone and will result in a loss of high-class soils, it is well established throughout the Applicant's evidence that the Sites are appropriate for the proposed development and meets the strategic directive policy (and supporting retirement village policy in the GRUZ) of providing for a variety of housing types to meet the communities needs and will help meet some of the net latent demand set out in the Webster research.
- (c) The Applications represent seamless extension of a high demand facility in the locality and will not give rise to adverse effects that are more than minor. The Applications therefore represent sustainable management of an available land resource and is overall consistent with the sustainable management aims of the RMA.
- (d) Section 7 of the RMA lists the matters that the consent authority is required to have particular regard to in achieving the purpose of the RMA. Those which are considered relevant are (b) the efficient use and development of natural and physical resources; (c) the maintenance and enhancement of amenity values; and (f) maintenance and enhancement of the quality of the environment. As a comprehensively designed development, the design approach has enabled consideration of how the amenity of the area can be best integrated and enhanced for both future residents of the village, and neighbours of the site. The development is consistent with the design outcomes, building forms, and landscape treatment of the existing TCC site and is therefore a continuation of the well accepted high amenity development delivered by Sanderson in the surrounding locality. For these reasons, the proposal will contribute significantly to an enhancement of amenity values and the quality of the environment within the locality. Overall, the proposal will be consistent with the relevant provisions in s7.

- (e) Section 8 concerns the principles of the Treaty of Waitangi. Direct consultation has been undertaken with local iwi Ngāti Hauā Iwi Trust who has confirmed they have no objections to the proposed development subject to partnership opportunities been maintained. On this basis the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) have been achieved.
- 181. For the reasons outlined above, the proposal is considered to achieve the purpose and principles within Part 2 of the RMA.

PLANNING MATTERS RAISED IN SUBMISSIONS

- 182. The Applications were publicly notified. From that public notification process, only one submission was received. That submission was received from a party that lives 2.5km south of the site, and likely uses Tamahere Drive regularly to travel to and from Hamilton and the wider region.
- 183. That submission has raised the following planning-related matters:
 - (a) The number of dwellings and associated building coverage is inappropriate for the Rural Zone;
 - (b) The proposal is on high-quality soils and productive uses are possible on the site; and
 - (c) The proposal conflicts with the Rural Zone policies of the district plan.
- 184. I have traversed, my opinion, on these three matters at length in this evidence, being that the concerns raised by the submitter share similarities with some of the conclusions reached by Ms Carmine. For the benefit of the submitter, I record that:
 - (a) I have provided an assessment of the objectives and policies of the PDP. It is my view that the Applications are consistent with the strategic directive policy (and supporting retirement village policy in the GRUZ) of providing for a variety of housing types to meet the communities needs. I therefore do not agree with Mr Smith's statement that any residential development in rural areas needs to be confined to existing rural villages and townships.
 - (b) It is my opinion that the policies relating to number of dwellings and any corresponding rules around site coverage are not directly relevant for an assessment of the Applications based on the policy framework I note above.
 - (c) Whilst the development is located on soils that are considered to be highclass soils (as defined by the PDP) the evidence of Mr Hunt is that due to constraints, it is highly unlikely that the Sites would be used for anything

other than pastural grazing, in a hobby or lifestyle block manner. Any other land uses are not economically viable and do not make good use of the soil resource.

185. The submission also raised concerns relating to traffic and transportation matters and construction effects which are addressed in the evidence of Mr Apeldoorn.

OFFICER'S REPORT

- 186. I have addressed most of the matters in respect of the issues raised in the s42A report through this statement of evidence. This section addresses the matters that Ms Carmine considers that are matters of contention, and other areas of disagreement. This section does not repeat the analysis I've already undertaken earlier in my evidence, however, for completeness, I list the matters identified by Ms Carmine as being "matters for contention" in the Executive Summary of the s42A report, and cross-reference back to the appropriate paragraphs in my evidence or other briefs of evidence prepared by experts on behalf of the Applicant where necessary:
 - (a) The effects on rural character and settlement patterns will have adverse effects that are more than minor for the Southern Extension.
 - (b) The effects on soil resources are minor within the Southern Extension.
 - (c) The Applications are not captured as alterations or additions to an existing village, and therefore Policy GRUZ-P15 is not relevant and cannot be used to outweigh the other policies of the rural zone and that the Eastern and Southern Extensions are contrary with the objectives and policies of the PDP.
 - (d) The proposal undermines the objectives and policies of the RPS and NPS-UD in relation to well-functioning urban environments, compact urban form and the directive settlement patterns determined under a statutory framework.
 - (e) On precedent and district plan integrity the proposal is not materially indistinguishable from other applications and other applications are likely.
 - (f) The Southern Extension cannot meet either section (a) or (b) of s104D(1), being that the adverse effects of the activity on the environment will be minor or the application is for an activity that will not be contrary to the objectives and policies of the relevant district plan.
- 187. I address each in turn.

Effects on Rural character and Soil Resource

188. I have addressed both these matters in some detail earlier in my evidence. It is my view that, based on the evidence of the respective technical experts providing evidence for the Applicants that the Applications will technically not maintain rural character, nor will they retain high class soils on the Sites. The effects of this however, will not be more than minor. This is because they are an expansion of an existing retirement village, they have been deliberately been designed with an appropriate interface that responds to the character of the existing environment, and because overtime they represent a seamless expansion of the existing TCC village. For the soil resource, the evidence of Mr Hunt is that the land contained in both the Eastern and Southern Extensions has no economic or primary productive value which in my opinion is the key driver for protecting the soils resource.

Policy Direction, including RPS

- 189. There is a fundamental difference in opinion between me and Ms Carmine in relation to the policy framework in both the PDP and the RPS. I have addressed this matter in detail earlier in my evidence. The key points I want to reiterate here are that:
 - (a) The analysis by Webster Research set out that there is a net latent demand in the area of 6580 units, through to 2043, that is required to cater to the ageing population. This demand will not be met by existing provision or that in the development pipeline.
 - (b) The Eastern and Southern Extensions meet Council's strategic direction policy of providing a variety of housing to meet the needs, including its changing needs, of the community.
 - (c) Policy GRUZ-15 was not intended to be interpreted based on the PDP defined terms for 'alterations' and 'additions'. The documentation supporting the PDP decision records that Council sought a framework that enabled a pathway for the expansion of existing retirement villages because of the significant investment they have made and the contribution they make in catering for the needs of the ageing population, which is understood to be at a crisis point.
 - (d) Future Proof has recognised that just rezoning land for residential uses may not be enough to cater for the needs of an ageing population and they are looking to explore this issue further in their first Implementation Plan.

(e) While the proposal is not entirely consistent with the RPS, the inconsistencies are appropriate because they represent an extension of an existing retirement village, there are apparent deficiencies in how Future Proof (and thus the RPS) provides for retirement village demand and because demand for further retirement village accommodation has been demonstrated in the supporting demand analysis.

Precedent and Integrity Effects

- 190. The s 42A Report has raised the issue of precedent effects. I am aware that this can be treated as a relevant consideration under s104(10(b)(iv)) or s104(1)(c) of the RMA.
- 191. As set out my evidence, I do not consider that the granting of the Applications sought will create a precedent, as the Applications include 'unusual' or 'distinguishable' features that would differentiate these Applications from other similar applications. The key reasoning for this being that the proposal is an expansion of an existing retirement village, not a bespoke new retirement village in a rural environment. This means that the expansion will be viewed in the context of that existing environment, and over time will read as if it has always been part of the TCC village.
- 192. In addition, all expert evidence confirms that the effects of the Applications can be appropriately managed such that they are no more than minor in nature.
- 193. Furthermore, any future resource consents applications will be subject to a specific consent process. The effects of any future application similar to the Applications sought will need to be assessed in the context of the receiving environment in which the proposal is to be located.
- 194. I therefore do not consider that the granting of the Applications, as sought, will create a precedent or impact plan integrity.

Section 104D and Section 42A Report Conclusion

- 195. As set out in this evidence, it is my opinion that Applications can pass both limbs of the s 104D gateway tests to enable a substantive decision to be made and there is no impediment to granting both Applications as sought by the Applicant.
- 196. Having now considered the s 42A report and Ms Carmine's analysis of the Applications, my overall planning conclusion, as set out in the statement of evidence, has not changed and I maintain my opinion that there are no planning reasons why the consents sought cannot be granted in accordance with s104 of the RMA.

CONDITIONS

- 197. A set of proposed conditions for the Eastern Extension were included in the s 42A report. I have reviewed those conditions and have no fundamental concerns with them and consider that they provide a robust framework for the management of the potential adverse effects associated with that application. I do however have some tweaks and clarifications that I am working through with Ms Carmine. For these reasons, we will present an agreed set of conditions for the Commissioner to consider at the hearing.
- 198. A set of conditions for the Southern Extension were not included in the s 42A Report. As above, Ms Carmine and myself will prepare a set and provide those for the Commissioner's consideration at the hearing.

CONCLUSIONS

- 199. Sanderson seeks a suite of resource consent approvals from Council to enable them to extend their retirement village offering across two sites, being the Eastern and Southern Extensions.
- 200. Overall, it is my opinion that there are no impediments to granting the resource consent applications as sought by the Applicant.

Kathryn Drew 16 April 2024



TAMAHERE COUNTRY CLUB

DETAILED SITE INVESTIGATION

PROJECT NO: HD2807 TAMAHERE COUNTRY CLUB REFERENCE: DSI REV2 08 APRIL 2024

Executive summary

The Tamahere Country Club (the client) propose to develop 56, 70, 82, and 92 Tamahere Drive, Tamahere (the site) with an expansion of their existing retirement village.

The site historically contained a mix of orchards and market gardens. Both orchards and market gardens can be considered hazardous activities and industries list (HAIL) sites due to the potential application and/or bulk storage of persistent pesticides. Before and following the orchard activities, the site was used as pasture for grazing. While grazing is not a HAIL activity, use of superphosphate fertiliser associated with farming activities can lead to elevated cadmium in soil. The site also contained several buildings constructed pre-1970. The age of the buildings indicates that lead-based paint and asbestos-containing materials (ACM) may have been used in their construction; the degradation of either of these materials may have impacted the soil surrounding the buildings, presenting a risk to human health.

The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) requires consideration where subdivision, change in land use, and/or soil disturbance are proposed at confirmed or potential HAIL sites. As the site has potentially been subject to HAIL activities, the NESCS requires investigation under the NESCS. The client has engaged us (HD Geo) to complete this detailed site investigation (DSI).

We identified and investigated the site for:

- HAIL A10, associated with the potential application of persistent pesticides across the historic orchards/market gardens
- HAIL I, associated with the potential application of superphosphate fertiliser across the pasture and the potential use of lead-based paint or ACM on the sheds constructed pre-1970

Based on our site investigation and interpretation of laboratory results, our conclusions are that:

- heavy metals, asbestos, OCPs, and TPH in soil do not present a risk to human health for the proposed residential/retirement village land use
- the site is not subject to HAIL activity I associated with the application of superphosphate fertiliser, use of lead-based paint on buildings, use of ACM building material, or derelict cars present in the paddock at 92 Tamahere Drive
- 56, 70, 82 and 92 Tamahere Drive are subject to HAIL activity A10 associated with the former orchard/market garden and therefore are 'pieces of land' under the NESCS
- the proposed change in land use and soil disturbance for the 'pieces of land' is a controlled activity under the NESCS

We recommend that:

- this DSI report is submitted to WDC to support a controlled activity consent application for the proposed development
- as a condition of consent, Council requires a SQEP to develop a site management plan to ensure the site can be safely managed during the proposed soil disturbance
- any soil proposed for off-site disposal has a copy of the relevant laboratory reports (Appendix G) provided to the chosen disposal facility to confirm that they can accept the soil

List of acronyms

Acronym	Definition			
ACM	asbestos-containing material			
bgl	below ground level			
CLMG	contaminated land management guideline			
COPC	contaminants of potential concern			
CSM	conceptual site model			
DSI	detailed site investigation			
HAIL	hazardous activities and industries list			
HD Geo	HD Geo Limited			
HE	HAIL Environmental			
m	metres			
mg/kg	milligrams per kilogram			
mm	millimetres			
NEPM	National Environment Protection Measures			
NESCS	National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health			
OCPs	organochlorine pesticides			
PSI	preliminary site investigation			
RPD	relative percent difference			
SQEP	Suitable Qualified and Experienced Practitioner			
ТРН	total petroleum hydrocarbons			
WDC	Waikato District Council			
WRC	Waikato Regional Council			

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Introduction

The Tamahere Country Club (the client) proposes to develop 56, 70, 82, and 92 Tamahere Drive, Tamahere (the site) with an expansion of their existing retirement village. We have included a plan showing the proposed development in Appendix A.

The site historically contained a mix of orchards and market gardens. Both orchards and market gardens can be considered hazardous activities and industries list (HAIL) sites due to the potential application and/or bulk storage of persistent pesticides. Before and following the orchard activities, the site was used as pasture for grazing. While grazing is not a HAIL activity, use of superphosphate fertiliser associated with farming activities can lead to elevated cadmium in soil. The site also contained several buildings constructed pre-1970. The age of the buildings indicates that lead-based paint and asbestos-containing materials (ACM) may have been used in their construction; the degradation of either of these materials may have impacted the soil surrounding the buildings, presenting a risk to human health.

The National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NESCS) requires consideration where subdivision, change in land use, and/or soil disturbance are proposed at confirmed or potential HAIL sites.

As the site has potentially been subject to HAIL activities, the NESCS requires investigation under the NESCS. The client has engaged us (HD Geo) to complete this detailed site investigation (DSI).

Purpose, objectives, and scope

The purpose of this DSI is to evaluate whether the site is suitable for the proposed retirement village in accordance with NESCS regulations. In doing so, this DSI will support the resource consent application to Waipa District Council.

The specific objectives of this DSI are to determine if:

- the site has been subject to HAIL activities
- any identified HAIL activities are likely to have impacted soil in a way that may present a risk to human health
- any risk to human health exists should the proposed change in land use and/or soil disturbance be undertaken
- consent is required for the development under the NESCS
- there is a requirement for any further investigation and/or reporting under the NESCS

This DSI consists of the following elements:

- a desktop study, including review of historic and recent aerial photos, geology and hydrogeology, applicable council records, and any other relevant environmental studies
- a site inspection to identify features of interest and potential contamination sources
- collection and analysis of soil samples
- preparation of a report consistent with Ministry for the Environment's Contaminated Land Management Guidelines No. 1¹

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¹ Ministry for the Environment. 2021. Contaminated land management guidelines No 1: Reporting on contaminated sites in New Zealand (Revised 2021). Wellington: Ministry for the Environment

Site details

Table 1: Site details ²						
Item	Description					
Site address and current	56 Tamahere Drive, Tamahere	LOT 1 DPS 59441				
legal descriptions	70 Tamahere Drive, Tamahere	LOT 1 DPS 80372				
	82 Tamahere Drive, Tamahere	LOT 1 DP 565970				
	92 Tamahere Drive, Tamahere	PT LOT 11 DP 9747				
Zoning	Rural					
Approximate site area	71,356 m ²					
Current site use	Residential housing, pasture, Christmas tree orchard					
Proposed site use	Retirement village					
District Council	Waikato District Council					
Regional Council	Waikato Regional Council					
Approximate elevation	48 m to 49 m above local datum					

Site details are included in Table 1 and site photos are provided in Appendix B.

Site description

The site is located at 56, 70, 82, and 92 Tamahere Drive, Tamahere. It is bounded by Tamahere Drive to the east, the extension to the existing Tamahere Country Club to the north and west, and rural residential housing to the west and south.

The site being assessed consists of 4 independent properties. The lot addresses and descriptions are:

- 56 Tamahere Drive, containing a residential house in the north-west corner, access drive/gardens in the north-east corner, and paddocks used for animal grazing
- 70 Tamahere Drive, containing the Red Lid commercial building and storage yard in the north, a residential house and sheds in the south-east, and gardens, animal grazing, and a small greenhouse in the south-west
- 82 Tamahere Drive, currently used as a laydown area for the Tamahere Country Club extension
- 92 Tamahere Drive, containing a residential house and sheds in the central and central-south segments and vacant pasture across the balance of the site

We have included a plan showing the site in Appendix A and site photos in Appendix B.

Proposed development

The client proposes to remove the existing structures on the site and construct retirement housing and facilities as part of their wider Tamahere Country Club retirement village development. Plans showing the proposed development have not been developed. Once plans are available, we should review them and update this DSI if needed.

Desktop study

We completed a desktop study prior to the site visit to identify areas of interest. This included a review of historical³ and recent⁴ aerial images, geological maps, and the evaluation of existing records.

² Matamata-Piako District Council, Hexagon Geospatial, accessed 24/02/23. https://webmap.mpdc.govt.nz/PublicPortalFull/

³ Sourced from <u>http://retrolens.nz</u> and licensed by LINZ CC-BY. Accessed 29/03/23

⁴ Google Earth Pro

Historical aerial photos

Our aerial photo review evaluated previous land uses and areas of interest. Aerial photos are provided in Appendix C and described in Table 2.

Table 2: Historical	able 2: Historical aerial photos				
Year	Description				
1943	Most of the site is currently vacant pasture likely used for stock grazing. There is a shed present along the west side of 56 Tamahere Drive and a house and sheds located near the centre of 92 Tamahere Drive. The site is immediately surrounded by pasture in all cardinal directions.				
1953 to 1957	The shed at 56 Tamahere Drive has been removed.				
1972 to 1979	 70 Tamahere Drive has been developed with an orchard on the north and west part of the property. There are 4 sheds and a house near the centre of the property. 92 Tamahere Drive has been developed with orchards/market gardens within the west half and north-east segment. By 1979: the orchard/market gardens at 92 Tamahere Drive have been removed 82 Tamahere Drive has been developed with an orchard/market garden a new shed has been constructed in the north portion of 70 Tamahere Drive a house has been constructed in the west portion of 56 Tamahere Drive 				
1990 to 1995	The west and south-west portions of 56 Tamahere Drive have been developed as part of the wider orchard. A new shed has been constructed along the north boundary of 70 Tamahere Drive.				
2008 to 2022	 By 2008, the orchards/market gardens at 56 and 70 Tamahere Drive have been removed. Most of the buildings at 70 Tamahere Drive have been removed, with only the house and building near the north boundary remaining. The market garden from 82 Tamahere Drive has been removed and the property planted in crops. No significant changes can be seen on site until: 2013, where a new shed has been constructed to the west of the house at 70 Tamahere Drive 2019, where rows of pine trees have been planted in the east side of 92 Tamahere Drive 2021, where rows of pine trees have been planted in the west side of 92 Tamahere Drive 2022, where 82 Tamahere Drive has been converted into a laydown area associated with the Tamahere Country Club development to the north 				

Geology and hydrogeology

The geologic map of the area⁵ shows that the site is underlain by the Hinuera Formation, which consists of 'cross-bedded pumice sand, silt and gravel with interbedded peat'.

There are 4 mapped bodies of water within 1 km of the site. These include:

- 2 tributary streams of the Mangaone Stream, located 115 m east and 670 m west of the site
- the Mangaone Stream to the north and east, with the closest point located 620 m north-east
- the Waikato River, located 630 m to the west

⁵ 1:250,000 Geological Map of New Zealand (QMAP). *New Zealand Geology Web Map*. GNS, 2013. <u>http://data.gns.cri.nz/geology/</u>. Accessed 26/04/23

Based on the topography of the site and immediately surrounding area, it is likely that groundwater flows either west towards the Waikato River or east towards the Mangaone Stream.

According to Wells Aotearoa New Zealand⁶, there are 44 mapped bores within 1 km of the site. Bore depths ranged from 6.09 m to 69.4 m deep. One of the 40 bores is recorded as being used for drinking water but is not currently in use. The depth to water was recorded in 9 of 44 bores and ranged from 5 m to 24.4 m deep.

Council records

We requested records from Waikato District Council and Waikato Regional Council (WRC). We have included the Council records provided in Appendix D.

WRC list 3 of the 4 properties in the land use information register as being subject to HAIL activity A10. This includes:

- 70 Tamahere Drive, listed as an unverified HAIL and associated with C R Roberts Ltd
- 82 Tamahere Drive, listed as a verified HAIL due to the presence of a historic orchard
- 92 Tamahere Drive, listed as an unverified HAIL due to the presence of a historic market garden

We did not order property records from either Council as their responses, and the available historical aerial photos, were sufficient to understand the site history and the site's potentially contaminating activities.

HAIL Environmental – Tamahere Country Club 2021 PSI/DSI

HAIL Environmental (HE) prepared a combined PSI and detailed site investigation (DSI)⁷ for an extension of the existing Tamahere Country Club in 2021. The investigation area was located immediately north and west of the site. HE identified that WRC listed the site as an unverified HAIL for activity A10 (persistent pesticide bulk storage or use). HE's investigation found that the site had been used for grazing until 1963, where the site was converted to an orchard then subsequently maize plantings from early 2000s.

Following the desktop study, HE collected soil samples from the orchard area and near a shed used for chemical storage. The samples were analysed for select heavy metals, organochlorine pesticides (OCPs), and organonitrogen-organophosphate pesticides. HE also identified an area as containing building demolition rubble, which was sampled and analysed for asbestos.

HE identified that the proposed retirement village does not fit within the existing land use scenarios within the NESCS. Therefore, HE calculated site-specific soil contaminant standards for arsenic and lead based on the expected age, exposure frequency, and site-grown produce consumption.

The results of HE's analysis showed that:

- arsenic and pesticides were present in soil above background concentrations but below the site-specific soil contaminant standards
- arsenic, copper, and lead were present in soil above Waikato cleanfill criteria at the location of a former shed
- trace concentrations of ACM were present in the location of the building rubble at concentrations below guidelines

⁶ Wells Aotearoa New Zealand, Maps, <u>https://wellsnz.teurukahika.nz/wells/map</u>. Accessed 26/04/23

⁷ HAIL Environmental. Lot 1 DPS 83644, Tamahere, Cambridge – Preliminary and detailed site investigations. Rev A, dated 23/06/21

Based on their investigation and sample results, HAIL Environmental:

- concluded that the site was a HAIL site for HAIL A.10⁸
- concluded the proposed change in land use and soil disturbance is a controlled activity under the NESCS
- recommended that the area of metal-impacted soil around the existing shed and asbestos-impacted soil at the encountered building rubble is remediated and validated

Site uses and potentially contaminating activities

Our desktop study concludes that all 4 properties within the site have been subject to potential HAIL activities:

- HAIL A.10, associated with the potential application of persistent pesticides across the historic orchards/market gardens
- HAIL I⁹, associated with:
 - the potential application of superphosphate fertiliser across the pasture
 - the potential use of lead-based paint or ACM building materials on the sheds constructed pre-1970

The contaminants of potential concern (COPC) associated with this site include:

- cadmium associated with the use of superphosphate fertiliser
- arsenic and organochlorine pesticides (OCPs) associated with the use and/or bulk storage of persistent pesticides within the orchards/market gardens
- lead associated with the application of lead-based paints to buildings
- asbestos associated with building constructed using asbestos-containing materials (ACM)

Site inspection

We completed a site inspection to identify features that have the potential to contaminate the soil on site. We have included site photos from our walkover in Appendix B.

We confirmed that most of the site is currently vacant, grassed pasture, with a mix of commercial and residential buildings across the 4 individual properties. Features of note encountered during our walkover include:

- an aboveground fuel storage tank at 70 Tamahere Drive, associated with the Red Lid commercial building, which is located on concrete hardstand.
 - There was no hydrocarbon staining on the concrete surrounding the tank
 - The tank was of modern double skinned construction
- scattered inorganic material (metal, pipes, bricks, plastic) on the soil in the west side of 82 Tamahere Drive and near the house at 92 Tamahere Drive
- aboveground fuel storage tanks within the gravelled laydown area at 82 Tamahere Drive.
 - There was no hydrocarbon staining on the hardstand surrounding the tanks
 - the tank was of modern double skinned construction

⁸ HAIL A10 – Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds
⁹ HAIL I - any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment

- The tank was a temporary fixture on a trailer associated with the earthworks being undertaken on the site to the north
- 3 derelict cars within the western paddock at 92 Tamahere Drive, which have the potential to have leached contamination to the on-site soil (potential HAIL I)

We observed no visual or olfactory signs of contamination during our site walkover. We found no evidence of underground storage tanks, lagoons, or hazardous substance releases at the time of our inspection. We observed no signs of chemically stressed vegetation.

Although we identified aboveground fuel storage at 70 and 82 Tamahere Drive, we do not consider that these tanks constitute HAIL activities under HAIL A.17, as they were both double skinned, well maintained and there was no evidence of any impact to the surrounding soils.

Conceptual site model

The conceptual site model (CSM) helps identify how potential soil contamination could affect human health should the site be subject to the proposed change in land use or soil disturbance. Our CSM follows the source - pathway - receptor model and is summarised in Table 3.

Potential HAIL	Source	COPC	Pathways	Routes of entry	Potential
activity					receptors
A10 - Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds	Application of persistent pesticides	Arsenic, OCPs	Plant uptake, surface water run-off, soil disturbance, dust generation	Dermal adsorption (contact), inhalation of dust, ingestion of dust and/or soil, ingestion of contaminated plants	Current site users, future construction workers, future residents
I - Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment	Application of superphosphate fertiliser	Cadmium	Plant uptake, surface water run-off, soil disturbance, dust generation	Dermal adsorption (contact), inhalation of dust, ingestion of dust and/or soil, ingestion of contaminated plants	Current site users, future construction workers, future residents
	Lead-based paint	Lead	Surface water run-off, soil disturbance, dust generation	Dermal adsorption (contact), inhalation of dust, ingestion of dust and/or soil	Current site users, future construction workers, future residents
	ACM building material	Asbestos	Surface water run-off, soil disturbance, dust/fibre generation	Inhalation of fibres	Current site users, future construction workers, future residents
	Degradation of vehicles and vehicle parts	Heavy metals, TPH	Surface water run-off, soil disturbance, dust generation, migration via groundwater	Dermal adsorption (contact), inhalation of dust, ingestion of dust and/or soil	Current site users, future construction workers, future residents

Table 3: Conceptual site model

Site investigation and sampling

Sampling rationale

We considered the following when developing our sampling and analysis plan:

- the Contaminated Land Management Guidelines (CLMG) No. 5¹⁰
- the potential linkages identified in our CSM
- our knowledge of transport and behaviour of the identified COPC

We used systematic sampling to investigate HAIL A.10 associated with the orchards/market gardens and HAIL I associated with the application of superphosphate fertiliser. As arsenic, cadmium, and OCPs are relatively immobile in soil, and both fertiliser and pesticides are applied from the top-down, residual contamination from these COPC are likely highest in the top 100 mm of soil Therefore, we collected and analysed samples from the near-surface soil across the pasture on site. As cadmium toxicity is highly pH dependant, we used targeted sampling to investigate the natural pH of the site soils.

We used targeted sampling to investigate the remaining COPC, including HAIL I associated with:

- lead-based paint and ACM building material. The main transport mechanism for these COPC is via weathering and degradation (paint flakes and damage to ACM) over time, which results in contaminated around the curtilage of affected buildings. Therefore, we targeted the curtilage of buildings on site for sampling and analysis
- leaching of contamination (heavy metals and TPH) from the derelict cars at 92 Tamahere Drive. The main transport mechanism for heavy metals and TPH to enter the soil is from leaking of fluids (fuel pipes, batteries, containers) and weathering/degrading of materials over time. Consequently, the COPC associated with derelict cars are likely to be limited to the near-surface soil under the cars. Therefore, we targeted near-surface soil under the cars for sampling and analysis

Site sampling

The site investigation included the collection of:

- near-surface (50 mm to 100 mm below ground level [bgl]) samples taken from across the pasture on site (ES01 to ES16)
- near surface and shallow subsurface samples taken from a grassed area within the laydown area at 82 Tamahere Drive (ES17 and ES18)
- near-surface samples taken from underneath the rubbish stockpiles at 92 Tamahere Drive (ES19 and ES20)
- near-surface samples taken from the curtilage of buildings suspected to contain lead-based paint and/or ACM building materials (ES21 to ES26)
- a near-surface sample taken from underneath 1 of the derelict cars at 92 Tamahere Drive (ES27)

We had the near-surface samples at locations:

- ES01 to ES16 analysed for arsenic and cadmium
- ES04, ES08, ES10, and ES14 analysed for OCPs
- ES17 to ES20 analysed for heavy metals
- ES21 to ES26 analysed for lead
- ES23 to ES26 analysed for the presence/absence of asbestos
- ES27 analysed for heavy metals and TPH

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HD2807 | Tamahere Country Club | Reference: DSI Rev2 | 7

¹⁰ Ministry for the Environment. 2021. Contaminated land management guidelines No. 5: Site investigation and analysis of soils (Revised 2021). Wellington: Ministry for the Environment

We used decontaminated sampling equipment and gloved hands to collect and place soil samples in suitable containers. We changed gloves between each sample collected. Samples were collected in accordance with CLMG No 5. We transported samples to Hill Laboratories under chain-of-custody protocols. Hill Laboratories is IANZ accredited for the analyses requested.

A suitably qualified and experienced practitioner (SQEP) with contaminated land experience oversaw the investigation. An experienced environmental specialist collected the samples.

HD Geo also completed a geotechnical investigation of the site¹¹. The investigation found that the site is surfaced with up to 0.5 m of topsoil underlain by silt and sand consistent with the mapped Hinuera Formation. We have included a soil log of the recovered material in Appendix E.

Laboratory results and evaluation

We have provided a summary table of laboratory results in Appendix F and full laboratory reports in Appendix G. For risk evaluation, we used:

- site-specific arsenic and lead concentrations for retirement village land use
- the National Environment Protection Measures (NEPM) for nickel and zinc¹²
- the NESCS residential soil contaminant standards for all other heavy metals and OCPs¹³
- the MfE petroleum hydrocarbon Tier 1 guidelines for hydrocarbons¹⁴
- the New Zealand guidelines for assessing and managing asbestos in soil¹⁵
- Waikato background concentrations for disposal¹⁶
- the Waikato regional cleanfill criteria for suitability for off-site disposal as cleanfill¹⁷

The wider Tamahere Country Club is a retirement village and has previously used site-specific soil guideline values for arsenic and lead based on:

- an average length of occupancy of 15 years
- the gardens surrounding the residential units being used for ornamental purposes only (a community vegetable garden is provided on-site for residents)

In addition, we expect that other receptors (children and adults) have the potential to be exposed to the on-site soil while visiting residents. Due to the low exposure frequency and limited soil contact, we consider the calculated site-specific guideline appropriate to manage risk for the proposed land use.

For consistency, we have adopted the site-specific soil contaminant standards calculated by HAIL Environmental for the Tamahere Country Club. While the HAIL Environmental 2021 PSI used concentrations of 200 mg/kg for arsenic and 7,000 for lead, they referenced their 2019 RAP for the calculations which showed lower concentrations (arsenic of 90 mg/kg, lead of 2,200 mg/kg). Therefore, we have used the concentrations shown in the RAP calculations to be conservative.

¹² National Environmental Protection Measure. Schedule B1 – Guideline on investigation levels for soil and groundwater. Revised 2013
 ¹³ Ministry for the Environment. 2012. Users' Guide: National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health. Wellington: Ministry for the Environment.

https://www.waikatoregion.govt.nz/services/regional-services/waste-hazardous-substances-and-contaminated-sites/contaminatedsites/natural-background-concentrations/. Accessed 08/11/23

¹¹ HD Geo Limited. Tamahere Country Club – Preliminary geotechnical assessment. Ref: HD2812

¹⁴ Ministry for the Environment. *Guidelines for assessing and managing petroleum hydrocarbon contaminated sites in New Zealand (revised 2011).* Module 4: Tier 1 soil acceptance criteria. Dated August 1999

 ¹⁵ Building Research Association of New Zealand. New Zealand guidelines for assessing and managing asbestos in soil. November 2017
 ¹⁶ Waikato Regional Council. Natural background concentrations in the Waikato region.

¹⁷ Waikato Regional Council. *Standard operating policies for defining cleanfill acceptance criteria*. Revised 15/09/2018

The analysis found that:

- arsenic and lead are below the calculated site-specific guideline concentrations
- cadmium, chromium, and copper are below the NESCS guidelines for residential land use
- nickel and zinc are below the NEPM guidelines using the residential A scenario
- all heavy metals except for chromium and nickel were encountered at concentrations above Waikato regional background concentrations
- arsenic, lead, and zinc were encountered at concentrations above Waikato cleanfill criteria
- 4,4'-DDE was detected in 1 of 4 tested samples at concentrations well below NESCS guidelines
- no TPH or asbestos was detected in the tested soil

We calculated the relative percent difference (RPD) for the arsenic and cadmium results from the duplicate samples, ES08 and ES11. RPD is calculated to evaluate the replication of laboratory results in samples. RPD is considered to be acceptable when it is at 30% or less. The RPDs for arsenic and cadmium ranged from 6% to 32%. Due to the heterogenous nature of the encountered soil, we consider the laboratory results to be representative (see Appendix F).

Application to guidelines

In order for HAIL A.10 to apply to the site, there must be evidence that persistent pesticides were either used or stored in bulk on site. The use and/or bulk storage of persistent pesticides are often linked to orchards and market gardens, both of which were identified across the site in our review of historic aerial images. The 2021 HE PSI/DSI report classified the adjacent site as HAIL A.17 based on a desktop review and a set of sampling data that generally had similarities to ours. Our laboratory results show that arsenic is elevated well above Waikato background concentrations at 92 Tamahere Drive and that a DDT-isomer (4,4'-DDE) is present at 1 of 4 tested locations on the same property. Based on our desktop study and the sample results, we conclude that:

- the footprints of the historic orchard/market garden at 92 Tamahere Drive has been subject to the application of persistent pesticides and therefore HAIL A.10 applies
- it is more likely than not that the historic orchard at 82 Tamahere Drive has been subject to the application of persistent pesticides and therefore HAIL A.10 applies
- it is more likely than not that the footprints of the historic orchard at 56 and 70 Tamahere Drive have been subject to the application of persistent pesticides and therefore HAIL A.10 applies

In order for HAIL activity I to apply to the site, potentially contaminating activities on site must have impacted the on-site soil at concentrations that have the potential to cause risk to either human health. All analytes targeted to assess HAIL I are below their applied human health criteria for the proposed land use. As the COPC associated with superphosphate fertiliser, lead-based paint, ACM building material, stockpiled rubbish, and derelict cars are not present above the applied human health criteria, the site has not been subject to HAIL activity I.

All lab data for the identified COPC were below their respective human health criteria for the proposed land use. Based on our investigation and laboratory data, we consider it unlikely that there is a risk to human health associated with developing the site into a retirement village.

The entire site is a 'piece of land' due to the historic orchard activities. A controlled activity consent under the NESCS is required as soil contamination is present above background concentrations on a HAIL site, but below human health guidelines.

Conclusions and recommendations

Our conclusions are that:

- heavy metals, asbestos, OCPs, and TPH in soil do not present a risk to human health for the proposed residential/retirement village land use
- the site is not subject to HAIL activity I associated with the:
 - application of superphosphate fertiliser
 - use of lead-based paint on buildings
 - use of ACM building material
 - derelict cars present in the paddock at 92 Tamahere Drive
- 56, 70, 82 and 92 Tamahere Drive are subject to HAIL activity A.10 associated with the former orchard/market garden and is therefore a 'piece of land' under the NESCS
- the proposed change in land use and soil disturbance for the 'pieces of land' is a controlled activity under the NESCS

We recommend that:

- this DSI report is submitted to WDC to support a controlled activity consent application for the proposed development
- as a condition of consent, Council requires a SQEP to develop a site management plan to ensure the site can be safely managed during the proposed soil disturbance
- any soil proposed for off-site disposal has a copy of the relevant laboratory reports (Appendix G) provided to the chosen disposal facility to confirm that they can accept the soil

Limitations

This document does not include any assessment or consideration of potential health and safety issues under the Health and Safety Work Act 2015. HD Geo has relied upon information provided by the Client and other third parties to prepare this document, some of which has not been fully verified by HD Geo. This document may be transmitted, reproduced, or disseminated only in its entirety. This report has been prepared for our client, their professional advisers, and the relevant territorial and regional authorities for the purposes detailed above and may not be relied on by any other party for any other purposes.

From a technical perspective, the subsurface environment at the site may present substantial uncertainty. It is a heterogeneous, complex environment, in which small subsurface features or changes in geologic conditions can have substantial impacts on water, vapour, or chemical movement. HD Geo's professional opinions are based on its professional judgement, experience, and training. It is possible that testing and analysis might produce different results and/or different opinions. Should additional information become available, this report should be updated accordingly.

Certification

This report presents information from an environmental site investigation conducted by and under the oversight of a SQEP with contaminated land expertise, as required by the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health and who is a Certified Environmental Practitioner. Detailed qualifications are available upon request.

Y.C.

Paul Gibbins Certified Environmental Practitioner, CEnvP #1410



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APPENDIX A – SITE PLANS

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APPENDIX B – SITE PHOTOS

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HD2807 – Tamahere Country Club photo log – Taken 29.03.23











Photo 10: Existing shelter at 92 Tamahere Drive, facing west



Photo 11: Rubbish stockpiled at 92 Tamahere Drive, facing north



Photo 12: Rubbish stockpiled at 92 Tamahere Drive, facing north



Photo 13: Existing house and stockpiled rubbish at 92 Tamahere Drive, facing west



Photo 14: Existing shed at 92 Tamahere Drive, facing south







Photo 18: Recent laydown area at 92 Tamahere Drive, facing north

APPENDIX C – HISTORIC AERIAL IMAGES

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2008 (Google Earth Pro, boundary is approximate)



APPENDIX D – COUNCIL RECORDS

hdgeo.co.nz

Matt Moore

From:	Caitlin Holm <caitlin.holm@waikatoregion.govt.nz></caitlin.holm@waikatoregion.govt.nz>
Sent:	Thursday, 13 April 2023 2:45 pm
То:	Matt Moore
Subject:	RE Land Use Information Register enquiry 56, 70, 82 & 92 Tamahere Drive,
-	Tamahere (REQ197142) LUI05990, LUI11122 & LUI12766

Dear Matt,

Thank you for your enquiry regarding information the Waikato Regional Council may hold relating to potential contamination at the properties indicated below:

- 56 Tamahere Drive, Tamahere: LOT 1 DPS 59441 (VRN 04443/288/01)
- 70 Tamahere Drive, Tamahere: LOT 1 DPS 80372 (VRN 04443/288/02)
- 82 Tamahere Drive, Tamahere: LOT 1 DP 565970 (VRN 04443/283/02)
- 92 Tamahere Drive, Tamahere: PT LOT 11 DP 9747 (VRN 04443/289/00)



Background: The Waikato Regional Council maintains a register of properties known to be contaminated on the basis of chemical measurements, or potentially contaminated on the basis of past land use. This register (called the Land Use Information Register) is still under development and should not be regarded as comprehensive. The

'potentially contaminated' category is gradually being compiled with reference to past or present land uses that have a greater than average chance of causing contamination, as outlined in the Ministry for the Environment's Hazardous Activities and Industries List (HAIL): <u>http://www.mfe.govt.nz/sites/default/files/hazards/contaminatedland/is-land-contaminated/hazardous-activities-industries-list.pdf</u>

These properties:

• I can confirm that **several** sites within your area of interest **do** appear on the Land Use Information Register, as indicated by the areas shaded the map below.



WRC REF	Site name	Classification	HAIL Code & Description	Comments and files or documents held
LUI05990 (Pink area)	Historic Orchard and Chemical Shed - 70 Tamahere Drive, Tamahere	Verified HAIL - Limited Sampling	A10. Persistent pesticide bulk storage or use	 The following documents are available on request: RAP completed by HAIL Environmental in 2019 (DOC# 13767049) SMP completed by HAIL Environmental in 2021 (DOC# 21891348) Revised DSI completed by HAIL Environmental in 2021 (DOC# 21893023)
LUI11122 (Green area)	ex CR Roberts Ltd	Unverified HAIL	A10. Persistent pesticide bulk storage or use	This site is included on the register for land use information only; we do not hold soil investigation reports regarding the presence or otherwise of hazardous substances in the soil.
LUI12766 (Yellow area)	Historic Market Gardens - 85, 92, 110 & 120	Unverified HAIL	A10 . Persistent pesticide	This site is included on the register for land use information only; we do not hold soil investigation

Tamahere Drive,	bulk storage	reports regarding the presence or otherwise of
Tamahere	or use	hazardous substances in the soil.

District Councils: Our records are not integrated with those of territorial authorities, so it would also be worth contacting the Waikato District Council to complete your audit of Council records if you have not already done so. In general, information about known contaminated land will be included on a property LIM produced by the territorial authority.

<u>**Rural Land Considerations:**</u> Examples of sites that are "more likely than not" to have soil contamination (HAIL sites) include timber treatment activities, service stations and/or petroleum storage, panel beaters, spray painters, etc. Whilst pastoral farming is not included on this list, typical farming activities of horticulture, sheep dipping, chemical storage, petroleum storage and workshops are; but are more difficult to identify and may not be as well represented on the Land Use Information Register. Therefore, individuals interested in pastoral land may be interested in completing further investigations in accordance with Ministry for the Environment Guidelines prior to land purchase and/or development.

Additional Information: Please note that:

- Significant use of lead-based paint on buildings can, in some cases, pose a contamination risk; the use of leadbased paint is not recorded on the Land Use Information Register.
- Buildings in deteriorated or derelict condition which contain asbestos can result in asbestos fibres in soil; the use of asbestos in building materials is not recorded on the Land Use Information Register.
- The long term, frequent use of superphosphate fertilisers can potentially result in elevated levels of cadmium in soil; the use of superphosphate fertiliser is not recorded on the Land Use Information Register.
- We are not currently resourced to fully incorporate historic aerial photographs in our region-wide assessment of HAIL activities. A significant proportion of the Crown historical aerial image archive for the Waikato region is available to view free of charge at <u>http://retrolens.nz/</u>. We recommend this resource is consulted for any HAIL assessment.
- Due to the large volume of enquiries being received, we may not be able to respond to your enquiry as quickly as previously. We are resourced to meet **20 day** response times as per LGOIMA, but endeavour to respond more quickly when workload permits. If your enquiry is urgent, please note this first in your enquiry and we will do our best to assist.

Please feel free to contact me if you have any further queries on this matter. For any new enquiries or requests for information please continue to use the <u>Request for Service form</u> for 'Contaminated Land/HAIL.'

Regards,

Caitlin Holm | SCIENTIST - GEOTHERMAL AIR LAND ECOLOGY AND CONTAMINATION | Geothermal & Air, Land Ecology & Contamination, WAIKATO REGIONAL COUNCIL | TE Kaunihera ā Rohe o Waikato

P: +6479497129 M: +64212133330 F: facebook.com/waikatoregion Private Bag 3038, Waikato Mail Centre, Hamilton, 3240

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APPENDIX E – SOIL INVESTIGATION LOGS

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	0	Project: Tamahere Country Club PGR					Dato:	HA01	04 23
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APPENDIX F – RESULTS SUMMARY TABLE

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HD2807 - Tamahere Country Club Laboratory results summary table (Heavy metals and asbestos)

		Residential	Maikata ragional	Waikato	ES01-50	ES02-50	ES03-50	ES04-50	ES05-50	ES06-50	ES07-50	ES08-50	ES09-50	ES10-50	ES11-50	ES12-50
	Sample Name:	assessment	cloanfill critoria	background	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23
	Lab Number:	criteria*	cleanini criteria	concentrations ¹	3220406	3220406	3220406	3220406	3220407	3220407	3220407	3220407	3220407	3220406	3220406	3220406
Heavy Metals, Screen Level																
Total Recoverable Arsenic	mg/kg dry wt	90**	17	6.8	7	9	4	6	10	11	11	29	11	25	24	23
Total Recoverable Cadmium	mg/kg dry wt	3	0.8	0.22	0.22	0.25	0.35	0.11	0.45	0.23	0.36	0.28	0.3	0.31	0.33	0.32
Total Recoverable Chromium	mg/kg dry wt	460	56	30	-	-	-	-	-	-	-	-	-	-	-	-
Total Recoverable Copper	mg/kg dry wt	>10,000	120	25	-	-	-	-	-	-	-	-	-	-	-	-
Total Recoverable Lead	mg/kg dry wt	2,200**	78	20	-	-	-	-	-	-	-	-	-	-	-	-
Total Recoverable Nickel	mg/kg dry wt	400	33	7.6	-	-	-	-	-	-	-	-	-	-	-	-
Total Recoverable Zinc	mg/kg dry wt	8,000	175	53	-	-	-	-	-	-	-	-	-	-	-	-

* Assessment criteria from the NESCS and NEPM. Standard residential assumes 10% of consumed produce will be grown on site.

** Using site-specific guideline values, assuming retirement village land use.

¹ Waikato Regional Council, Upper limit background concentrations for selected elements in soil of the Waikato region, acid recoverable data .

		Residential		Waikato	ES13-50	ES14-50	ES15-50	ES16-50	ES17-50	ES18-50	ES19-50	ES20-50	ES21-50	ES22-50	ES23-50	ES24-50
	Sample Name:	assessment	sloopfill critorio	background	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23
	Lab Number:	criteria*	cleannin criteria	concentrations1	3220406	3220406	3220406	3220406	3220406	3220406	3220406	3220406	3220406	3220406	3220406	3220406
Heavy Metals, Screen Level																
Total Recoverable Arsenic	mg/kg dry wt	90**	17	6.8	8	8	10	8	5	9	13	18	-	-	-	-
Total Recoverable Cadmium	mg/kg dry wt	3	0.8	0.22	0.35	0.74	0.22	0.39	< 0.10	0.38	0.26	0.38	-	-	-	-
Total Recoverable Chromium	mg/kg dry wt	460	56	30	-	-	-	-	6	8	8	11	-	-	-	-
Total Recoverable Copper	mg/kg dry wt	>10,000	120	25	-	-	-	-	5	46	9	33	-	-	-	-
Total Recoverable Lead	mg/kg dry wt	2,200**	78	20	-	-	-	-	11.8	16.1	180	270	230	182	24	17.5
Total Recoverable Nickel	mg/kg dry wt	400	33	7.6	-	-	-	-	2	4	3	4	-	-	-	-
Total Recoverable Zinc	mg/kg dry wt	8,000	175	53	-	-	-	-	25	195	104	320	-	-	-	-
Asbestos	Presence/absence				-	-	-	-	-	-	-	-	-	-	Absent	Absent

* Assessment criteria from the NESCS and NEPM. Standard residential assumes 10% of consumed produce will be grown on site.

** Using site-specific guideline values, assuming retirement village land use.

¹ Waikato Regional Council, Upper limit background concentrations for selected elements in soil of the Waikato region, acid recoverable data .

		Residential	Waikata regional	Waikato	ES25-50	ES26-50	ES27-50	ES08r-50	ES11r-50	ES10-300	ES11-300	ES12-300	ES08-400	PH1	PH2
	Sample Name:	assessment	cloanfill critoria	background	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23
	Lab Number:	criteria*	cleannii criteria	concentrations ¹	3220406	3220406	3220406	3220406	3220406	3220406	3220406	3220406	3220406	3220406	3220406
рН	pH Units				-	-	-	-	-	-	-	-	-	5.8	5.8
Heavy Metals, Screen Level															
Total Recoverable Arsenic	mg/kg dry wt	90**	17	6.8	-	-	24	21	27	83	39	16	49	-	-
Total Recoverable Cadmium	mg/kg dry wt	3	0.8	0.22	-	-	0.56	0.26	0.31	-	-	-	-	-	-
Total Recoverable Chromium	mg/kg dry wt	460	56	30	-	-	6	-	-	-	-	-	-	-	-
Total Recoverable Copper	mg/kg dry wt	>10,000	120	25	-	-	71	-	-	-	-	-	-	-	-
Total Recoverable Lead	mg/kg dry wt	2,200**	78	20	37	26	16.8	-	-	-	-	-	-	-	-
Total Recoverable Nickel	mg/kg dry wt	400	33	7.6	-	-	3	-	-	-	-	-	-	-	-
Total Recoverable Zinc	mg/kg dry wt	8,000	175	53	-	-	30	-	-	-	-	-	-	-	-
Asbestos	Presence/absence				Absent	Absent	-	-	-	-	-	-	-	-	-

* Assessment criteria from the NESCS and NEPM. Standard residential assumes 10% of consumed produce will be grown on site.

** Using site-specific guideline values, assuming retirement village land use.

¹ Waikato Regional Council, Upper limit background concentrations for selected elements in soil of the Waikato region, acid recoverable data .

Relative percent differences

Sample Name:	ES08-50 29-03-23	ES08r-50 29-03-23	RPD***
Lab Number:	3220406.8	3220406.28	
Arsenic	29	21	32%
Cadmium	0.28	0.26	7%

Sample Name:	ES11-50	ES11r-50	RPD***
	29-03-23	29-03-23	
Lab Number:	3220406.11	3220406.29	
Arsenic	24	27	12%
Cadmium	0.33	0.31	6%

***Relative Percent Difference. Calculated as ((x2 - x1))/((x2 + x1)/2)

HD2807 - Tamahere Country Club Laboratory results summary table (OCPs and TPH)

		Residential	Maikata ragional	Waikato	ES04-50	ES08-50	ES10-50	ES14-50	ES27-50
	Sample Name:	assessment		background	29-03-23	29-03-23	29-03-23	29-03-23	29-03-23
	Lab Number:	criteria*		concentrations ¹	3220406	3220407	3220406	3220406	3220406
Dry Matter	g/100g as rcvd				62	66	69	64	75
Organochlorine Pesticides Screening in Soil									
Aldrin	mg/kg dry wt	2.6	0.2		< 0.016	< 0.015	< 0.014	< 0.015	-
alpha-BHC	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
beta-BHC	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
delta-BHC	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
gamma-BHC (Lindane)	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
cis-Chlordane	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
trans-Chlordane	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
2,4'-DDD	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
4,4'-DDD	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
2,4'-DDE	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
4,4'-DDE	mg/kg dry wt				< 0.016	< 0.015	0.064	< 0.015	-
2,4'-DDT	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
4,4'-DDT	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
Total DDT Isomers	mg/kg dry wt	70	0.7		< 0.10	< 0.09	< 0.09	< 0.09	-
Dieldrin	mg/kg dry wt	2.6	0.2		< 0.016	< 0.015	< 0.014	< 0.015	-
Endosulfan I	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
Endosulfan II	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
Endosulfan sulphate	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
Endrin	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
Endrin aldehyde	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
Endrin ketone	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
Heptachlor	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
Heptachlor epoxide	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
Hexachlorobenzene	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
Methoxychlor	mg/kg dry wt				< 0.016	< 0.015	< 0.014	< 0.015	-
Total Petroleum Hydrocarbons in Soil									
С7 - С9	mg/kg dry wt	500	120		-	-	-	-	< 20
C10 - C14	mg/kg dry wt	510	58		-	-	-	-	< 20
C15 - C36	mg/kg dry wt	NA			-	-	-	-	< 40
Total hydrocarbons (C7 - C36)	mg/kg dry wt				-	-	-	-	< 80

* OCPs from the NESCS. TPH from the Petroleum Hydrocarbon Tier 1 guidelines, using sandy silt soil <1 m depth.

¹ Waikato Regional Council, Upper limit background concentrations for selected elements in soil of the Waikato region, acid recoverable data.

APPENDIX G – LABORATORY REPORTS

hdgeo.co.nz

Quote No 91878	R J Hill Laboratories Limited 28 Duke Street Frankton 32 Private Bag 3205 Hamilton 3240 New Zealand	Job No: Date Re Job No: Date Re 322	CY: 29-Mar-23 15:14 0406 c Broadbent
Primary Contact Matt Moore Submitted By Matt Moore Client Name UD Case Limited	T 0508 HILL LAB (44 555 T +64 7 858 2000 E mail@hill-labs.co.nz W www.hill-laboratories.co	m 3132204060	
Client Name HD Geo Limited 245781 Address PO Box 9266, Waikato Mail Centre 245781		RUSTODYR	
Hamilton 3240 Phone 07 957 2727 Mobile 027 701 9529 Email matt@hdgeo.co.nz	Sent to Hill Laboratories Tick if you require COC to be emailed back	Date & Time: 29-3 Name: Marr Ma Signature: MM	-23 14:45 Dore
Charge To HD Geo Limited 245781 Client Reference MAROR H01807 Order No Reports will be emailed to Primary Contact by default.	Received at Hill Laboratories	Date & Time: Name: Signature:	
Additional Reports will be sent as specified below. Email Primary Contact Email Submitter Email Client Email Other paul@hdgeo.co.nz	Condition	Chilled 🗌 Frozen	Temp: 18-9
Dates of testing are not routinely included in the Certificates of Analysis. Please inform the laboratory if you would like this information reported.	Sample & Analysis Signature:	s details checked	
All 250 containers are for metals (inc. Psoil250Asb containers)	Priority Low Urgent (ASAP, e NOTE: The estimated turnard and analyses specified on this the day of receipt of the samp	Normal xtra charge applies, please co build time for the types and nu quote is by 4:30 pm, 10 work les at the laboratory.	High ontact lab first) imber of samples ing days following
Quoted Sample Types	Requested Reporting [Date:	

Quoted Sample Types

Soil (Soil), Dried Paint (Paint), Building Material (BM), Ground Water (GW)

No.	Sample Name	Sample Date/Time	Sample Type	Tests Required
1	ES01-50 to ES16-950	19-3-23	Soil	Arsenic + cadmium
2	ES17-50 to ES10-50	Conception of the second s	No. og som	Heavy metals
3	ES17-50			Neavy metals, TPH
4	ES13-50 to ES16-50			Lead, pla asbestos
5	ES08r-50, ES11=50		 A state of the sta	Arsenic, cadmium
6	PWI, PH2			PH
7	ES04-50, ES08-50, ES10-50, ES14-50		A CHE AND A CHE	OCPS
8	All depth samples		The second s	Wold cold
9				
10				

" ÷.



Hill Laboratories TRIED, TESTED AND TRUSTED Private Bag 3205 Hamilton 3240 New Zealand

R J Hill Laboratories Limited 28 Duke Street Frankton 3204 Private Bag 3205

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W www.hill-laboratories.com

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Cortificate of Analy	
UCILINUALE UL ANAIN	

Client:	HD Geo Limited	Lab No:	3220406	SPv2
Contact:	Matt Moore	Date Received:	29-Mar-2023	
	C/- HD Geo Limited	Date Reported:	14-Apr-2023	(Amended)
	PO Box 9266	Quote No:	91878	
	Waikato Mail Centre	Order No:		
	Hamilton 3240	Client Reference:	HD2807	
		Submitted By:	Matt Moore	

Sample Type: Soil

compre Typer com						1
	Sample Name:	ES01-50 29-Mar-2023	ES02-50 29-Mar-2023	ES03-50 29-Mar-2023	ES04-50 29-Mar-2023	ES05-50 29-Mar-2023
	Lab Number:	3220406.1	3220406.2	3220406.3	3220406.4	3220406.5
Individual Tests						
Dry Matter	g/100g as rcvd	-	-	-	62	-
Total Recoverable Arsenic	mg/kg dry wt	7	9	4	6	10
Total Recoverable Cadmium	mg/kg dry wt	0.22	0.25	0.35	0.11	0.45
Organochlorine Pesticides S	creening in Soil				I	I
Aldrin	mg/kg dry wt	-	-	-	< 0.016	-
alpha-BHC	mg/kg dry wt	-	-	-	< 0.016	-
beta-BHC	mg/kg dry wt	-	-	-	< 0.016	-
delta-BHC	mg/kg dry wt	-	-	-	< 0.016	-
gamma-BHC (Lindane)	mg/kg dry wt	-	-	-	< 0.016	-
cis-Chlordane	mg/kg dry wt	-	-	-	< 0.016	-
trans-Chlordane	mg/kg dry wt	-	-	-	< 0.016	-
2,4'-DDD	mg/kg dry wt	-	-	-	< 0.016	-
4,4'-DDD	mg/kg dry wt	-	-	-	< 0.016	-
2,4'-DDE	mg/kg dry wt	-	-	-	< 0.016	-
4,4'-DDE	mg/kg dry wt	-	-	-	< 0.016	-
2,4'-DDT	mg/kg dry wt	-	-	-	< 0.016	-
4,4'-DDT	mg/kg dry wt	-	-	-	< 0.016	-
Total DDT Isomers	mg/kg dry wt	-	-	-	< 0.10	-
Dieldrin	mg/kg dry wt	-	-	-	< 0.016	-
Endosulfan I	mg/kg dry wt	-	-	-	< 0.016	-
Endosulfan II	mg/kg dry wt	-	-	-	< 0.016	-
Endosulfan sulphate	mg/kg dry wt	-	-	-	< 0.016	-
Endrin	mg/kg dry wt	-	-	-	< 0.016	-
Endrin aldehyde	mg/kg dry wt	-	-	-	< 0.016	-
Endrin ketone	mg/kg dry wt	-	-	-	< 0.016	-
Heptachlor	mg/kg dry wt	-	-	-	< 0.016	-
Heptachlor epoxide	mg/kg dry wt	-	-	-	< 0.016	-
Hexachlorobenzene	mg/kg dry wt	-	-	-	< 0.016	-
Methoxychlor	mg/kg dry wt	-	-	-	< 0.016	-
	Sample Name:	ES06-50 29-Mar-2023	ES07-50 29-Mar-2023	ES08-50 29-Mar-2023	ES09-50 29-Mar-2023	ES10-50 29-Mar-2023
	Lab Number:	3220406.6	3220406.7	3220406.8	3220406.9	3220406.10
Individual Tests						
Dry Matter	g/100g as rcvd	-	-	66	-	69
Total Recoverable Arsenic	mg/kg dry wt	11	11	29	11	25
Total Recoverable Cadmium	mg/kg dry wt	0.23	0.36	0.28	0.30	0.31



CCREDITED TSTING LABORATO

This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised. The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked * or any comments and interpretations, which are not accredited.

Sample Type: Soil						
	Sample Name:	ES06-50 29-Mar-2023	ES07-50 29-Mar-2023	ES08-50 29-Mar-2023	ES09-50 29-Mar-2023	ES10-50 29-Mar-2023
	Lab Number:	3220406.6	3220406.7	3220406.8	3220406.9	3220406.10
Organochlorine Pesticides S	creening in Soil					
Aldrin	mg/kg dry wt	-	-	< 0.015	-	< 0.014
alpha-BHC	mg/kg dry wt	-	-	< 0.015	-	< 0.014
beta-BHC	mg/kg dry wt	-	-	< 0.015	-	< 0.014
delta-BHC	mg/kg dry wt	-	-	< 0.015	-	< 0.014
gamma-BHC (Lindane)	mg/kg dry wt	-	-	< 0.015	-	< 0.014
cis-Chlordane	mg/kg dry wt	-	-	< 0.015	-	< 0.014
trans-Chlordane	mg/kg dry wt	-	-	< 0.015	-	< 0.014
2,4'-DDD	mg/kg dry wt	-	-	< 0.015	-	< 0.014
4,4'-DDD	mg/kg dry wt	-	-	< 0.015	-	< 0.014
2,4'-DDE	mg/kg dry wt	-	-	< 0.015	-	< 0.014
4,4'-DDE	mg/kg dry wt	-	-	< 0.015	-	0.064
2,4'-DDT	mg/kg dry wt	-	-	< 0.015	-	< 0.014
4,4'-DDT	mg/kg dry wt	-	-	< 0.015	-	< 0.014
Total DDT Isomers	mg/kg dry wt	-	-	< 0.09	-	< 0.09
Dieldrin	mg/kg dry wt	-	-	< 0.015	-	< 0.014
Endosulfan I	mg/kg drv wt	-	-	< 0.015	_	< 0.014
Endosulfan II	mg/kg drv wt	-	-	< 0.015	_	< 0.014
Endosulfan sulphate	mg/kg drv wt	-	-	< 0.015	_	< 0.014
Endrin	ma/ka drv wt	-	-	< 0.015	_	< 0.014
Endrin aldehvde	ma/ka drv wt	-	-	< 0.015		< 0.014
Endrin ketone	mg/kg dry wt	-	_	< 0.015	_	< 0.014
Heptachlor	ma/ka drv wt	-	_	< 0.015	_	< 0.014
Heptachlor epoxide	mg/kg dry wt	-	_	< 0.015	_	< 0.014
Hexachlorobenzene	mg/kg dry wt	-		< 0.015		< 0.014
Methoxychlor	mg/kg dry wt	-		< 0.015	_	< 0.014
						1 01011
	• · · ·	5044.50	5040.50	5040.50	5044.50	
	Sample Name:	ES11-50 29-Mar-2023	ES12-50 29-Mar-2023	ES13-50 29-Mar-2023	ES14-50 29-Mar-2023	ES15-50 29-Mar-2023
	Sample Name: Lab Number:	ES11-50 29-Mar-2023 3220406.11	ES12-50 29-Mar-2023 3220406.12	ES13-50 29-Mar-2023 3220406.13	ES14-50 29-Mar-2023 3220406.14	ES15-50 29-Mar-2023 3220406.15
Individual Tests	Sample Name: Lab Number:	ES11-50 29-Mar-2023 3220406.11	ES12-50 29-Mar-2023 3220406.12	ES13-50 29-Mar-2023 3220406.13	ES14-50 29-Mar-2023 3220406.14	ES15-50 29-Mar-2023 3220406.15
Individual Tests Dry Matter	Sample Name: Lab Number: g/100g as rcvd	ES11-50 29-Mar-2023 3220406.11	ES12-50 29-Mar-2023 3220406.12	ES13-50 29-Mar-2023 3220406.13	ES14-50 29-Mar-2023 3220406.14 64	ES15-50 29-Mar-2023 3220406.15 -
Individual Tests Dry Matter Total Recoverable Arsenic	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24	ES12-50 29-Mar-2023 3220406.12 - 23	ES13-50 29-Mar-2023 3220406.13 - 8	ES14-50 29-Mar-2023 3220406.14 64 8	ES15-50 29-Mar-2023 3220406.15 - 10
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33	ES12-50 29-Mar-2023 3220406.12 - 23 0.32	ES13-50 29-Mar-2023 3220406.13 - 8 0.35	ES14-50 29-Mar-2023 3220406.14 64 8 0.74	ES15-50 29-Mar-2023 3220406.15 - 10 0.22
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil	ES11-50 29-Mar-2023 3220406.11 - 24 0.33	E\$12-50 29-Mar-2023 3220406.12 - 23 0.32	ES13-50 29-Mar-2023 3220406.13 - 8 0.35	ES14-50 29-Mar-2023 3220406.14 64 8 0.74	ES15-50 29-Mar-2023 3220406.15 - 10 0.22
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32	ES13-50 29-Mar-2023 3220406.13 - 8 0.35	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < 0.015	E\$15-50 29-Mar-2023 3220406.15 - 10 0.22
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32 - -	ES13-50 29-Mar-2023 3220406.13 - 8 0.35 - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - - 24 0.33 - - - - -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32 - - - -	ES13-50 29-Mar-2023 3220406.13 - 8 0.35 - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < 0.015 < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - -	E\$12-50 29-Mar-2023 3220406.12 - 23 0.32 - - - - - -	ES13-50 29-Mar-2023 3220406.13 - 8 0.35 - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < 0.015 < 0.015 < 0.015 < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane)	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt mg/kg dry wt mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32 - - - - - - - - -	ES13-50 29-Mar-2023 3220406.13 - 8 0.35 - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < 0.015 < 0.015 < 0.015 < 0.015 < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt mg/kg dry wt mg/kg dry wt mg/kg dry wt mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32 - - - - - - - - - - - - - -	ES13-50 29-Mar-2023 3220406.13 - 8 0.35 - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < 0.015 < 0.015 < 0.015 < 0.015 < 0.015 < 0.015 < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32 - - - - - - - - - - - - - - - - - -	ES13-50 29-Mar-2023 3220406.13 - 8 0.35 - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < 0.015 < 0.015 < 0.015 < 0.015 < 0.015 < 0.015 < 0.015 < 0.015 < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane 2,4'-DDD	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32 - - - - - - - - - - - - - - - - - - -	ES13-50 29-Mar-2023 3220406.13 - 8 0.35 - - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane 2,4'-DDD 4,4'-DDD	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32 - - - - - - - - - - - - - - - - - - -	ES13-50 29-Mar-2023 3220406.13 - 8 0.35 - - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane 2,4'-DDD 4,4'-DDD 2,4'-DDE	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32 - - - - - - - - - - - - - - - - - - -	ES13-50 29-Mar-2023 3220406.13 - - 8 0.35 - - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane trans-Chlordane 2,4'-DDD 2,4'-DDD 2,4'-DDE 4,4'-DDE	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32 - - - - - - - - - - - - - - - - - - -	ES13-50 29-Mar-2023 3220406.13 - - 8 0.35 - - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane trans-Chlordane 2,4'-DDD 4,4'-DDD 2,4'-DDE 2,4'-DDE 2,4'-DDE	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32 - - - - - - - - - - - - - - - - - - -	ES13-50 29-Mar-2023 3220406.13 - - 8 0.35 - - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane trans-Chlordane 2,4'-DDD 4,4'-DDD 2,4'-DDE 2,4'-DDE 2,4'-DDT 4,4'-DDT	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32 - - - - - - - - - - - - - - - - - - -	ES13-50 29-Mar-2023 3220406.13 - - 8 0.35 - - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane 2,4'-DDD 4,4'-DDD 2,4'-DDE 4,4'-DDE 2,4'-DDT 4,4'-DDT Total DDT Isomers	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12 - - 23 0.32 - - - - - - - - - - - - - - - - - - -	ES13-50 29-Mar-2023 3220406.13 - - 8 0.35 - - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane trans-Chlordane 2,4'-DDD 4,4'-DDD 2,4'-DDE 2,4'-DDT 4,4'-DDT Total DDT Isomers Dieldrin	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32 - - - - - - - - - - - - - - - - - - -	ES13-50 29-Mar-2023 3220406.13 - - 8 0.35 - - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015 <0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane trans-Chlordane 2,4'-DDD 4,4'-DDD 2,4'-DDE 4,4'-DDE 2,4'-DDT 4,4'-DDT Total DDT Isomers Dieldrin Endosulfan I	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32 - - - - - - - - - - - - - - - - - - -	ES13-50 29-Mar-2023 3220406.13 - 8 0.35 - - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane trans-Chlordane 2,4'-DDD 4,4'-DDD 2,4'-DDE 2,4'-DDE 2,4'-DDT 4,4'-DDT Total DDT Isomers Dieldrin Endosulfan I Endosulfan II	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12 - 23 0.32 - - - - - - - - - - - - - - - - - - -	ES13-50 29-Mar-2023 3220406.13 - - 8 0.35 - - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < 0.015 < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - - 10 0.22 - - - - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane trans-Chlordane 2,4'-DDD 4,4'-DDD 2,4'-DDE 2,4'-DDE 2,4'-DDE 2,4'-DDT Total DDT Isomers Dieldrin Endosulfan I Endosulfan sulphate	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12	ES13-50 29-Mar-2023 3220406.13 - - 8 0.35 - - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - - 10 0.22 - - - - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane 2,4'-DDD 4,4'-DDD 2,4'-DDE 4,4'-DDE 2,4'-DDT 4,4'-DDT Total DDT Isomers Dieldrin Endosulfan I Endosulfan sulphate	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12	ES13-50 29-Mar-2023 3220406.13 - - 8 0.35 - - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < 0.015 < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane trans-Chlordane 2,4'-DDD 4,4'-DDD 2,4'-DDE 2,4'-DDE 4,4'-DDE 2,4'-DDT Total DDT Isomers Dieldrin Endosulfan II Endosulfan II Endosulfan sulphate Endrin	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt creening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12	ES13-50 29-Mar-2023 3220406.13 - - 8 0.35 - - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - - - - - - - - - - -
Individual Tests Dry Matter Total Recoverable Arsenic Total Recoverable Cadmium Organochlorine Pesticides S Aldrin alpha-BHC beta-BHC delta-BHC delta-BHC gamma-BHC (Lindane) cis-Chlordane trans-Chlordane trans-Chlordane 2,4'-DDD 4,4'-DDD 2,4'-DDE 2,4'-DDE 2,4'-DDT 4,4'-DDT Total DDT Isomers Dieldrin Endosulfan I Endosulfan sulphate Endrin Endrin aldehyde Endrin ketone	Sample Name: Lab Number: g/100g as rcvd mg/kg dry wt mg/kg dry wt reening in Soil mg/kg dry wt mg/kg dry wt	ES11-50 29-Mar-2023 3220406.11 - 24 0.33 - - - - - - - - - - - - - - - - - -	ES12-50 29-Mar-2023 3220406.12	ES13-50 29-Mar-2023 3220406.13 - - 8 0.35 - - - - - - - - - - - - - - - - - - -	ES14-50 29-Mar-2023 3220406.14 64 8 0.74 < < 0.015 < 0.015	ES15-50 29-Mar-2023 3220406.15 - 10 0.22 - - - - - - - - - - - - -

Sample Type: Soil							
	Sample Name:	ES11-50	ES12-50	ES13-50	ES14-50	ES15-50	
		29-Mar-2023	29-Mar-2023	29-Mar-2023	29-Mar-2023	29-Mar-2023	
	Lab Number:	3220406.11	3220406.12	3220406.13	3220406.14	3220406.15	
Organochlorine Pesticides So	creening in Soil						
Heptachlor epoxide	mg/kg dry wt	-	-	-	< 0.015	-	
Hexachlorobenzene	mg/kg dry wt	-	-	-	< 0.015	-	
Methoxychlor	mg/kg dry wt	-	-	-	< 0.015	-	
	Sample Name:	ES16-50	ES17-50	ES18-50	ES19-50	ES20-50	
		29-Mar-2023	29-Mar-2023	29-Mar-2023	29-Mar-2023	29-Mar-2023	
	Lab Number:	3220406.16	3220406.17	3220406.18	3220406.19	3220406.20	
		-					
Total Recoverable Arsenic	mg/kg dry wt	8	-	-	-	-	
I otal Recoverable Cadmium	mg/kg dry wt	0.39	-	-	-	-	
Heavy Metals, Screen Level			_	-			
Total Recoverable Arsenic	mg/kg dry wt	-	5	9	13	18	
Total Recoverable Cadmium	mg/kg dry wt	-	< 0.10	0.38	0.26	0.38	
Total Recoverable Chromium	mg/kg dry wt	-	6	8	8	11	
Total Recoverable Copper	mg/kg dry wt	-	5	46	9	33	
I otal Recoverable Lead	mg/kg dry wt	-	11.8	16.1	180	270	
Total Recoverable Nickel	mg/kg dry wt	-	2	4	3	4	
I otal Recoverable Zinc	mg/kg ary wt	-	25	195	104	320	
	Sample Name:	ES21-50	ES22-50	ES23-50	ES24-50	ES25-50	
	Lab Number:	29-Mar-2023	29-Mar-2023	29-Mar-2023	29-Mar-2023	29-Mar-2023	
Individual Tests	Lap Number.	5220400.21	3220400.22	3220400.23	5220400.24	3220400.23	
Total Recoverable Lead	ma/ka drv wt	230	182	24	17.5	37	
		230	102	27	17.5	51	
	Sample Name:	ES26-50	ES27-50	ES08r-50	ES11r-50	PH1 29-Mar-2023	
	l ab Number:	3220406.26	3220406.27	3220406.28	3220406.29	3220406.30	
Individual Tests	Lub Humber	0110100120	0220100121	0110.00.10	0120100120	0220100100	
Dry Matter	a/100g as rcvd	-	75	-	-	-	
Total Recoverable Arsenic	ma/ka drv wt	-	-	21	27	-	
Total Recoverable Cadmium	mg/kg dry wt	-	-	0.26	0.31	-	
Total Recoverable Lead	mg/kg dry wt	26	-	-	-	-	
pH*	pH Units	-	-	-	-	5.8	
Heavy Metals, Screen Level							
Total Recoverable Arsenic	mg/kg dry wt	-	24	-	-	-	
Total Recoverable Cadmium	mg/kg dry wt	-	0.56	-	-	-	
Total Recoverable Chromium	mg/kg dry wt	-	6	-	-	-	
Total Recoverable Copper	mg/kg dry wt	-	71	-	-	-	
Total Recoverable Lead	mg/kg dry wt	-	16.8	-	-	-	
Total Recoverable Nickel	mg/kg dry wt	-	3	-	-	-	
Total Recoverable Zinc	mg/kg dry wt	-	30	-	-	-	
Total Petroleum Hydrocarbor	is in Soil		1				
C7 - C9	mg/kg dry wt	-	< 20	-	-	-	
C10 - C14	mg/kg dry wt	-	< 20	-	-	-	
C15 - C36	mg/kg dry wt	-	< 40	-	-	-	
Total hydrocarbons (C7 - C36	δ) mg/kg dry wt	-	< 80	-	-	-	
	Sample Name:	PH2 29-Mar-2023	ES10-300 29-Mar-2023	ES11-300 29-Mar-2023	ES12-300 29-Mar-2023	ES08-400 29-Mar-2023	
	Lab Number:	3220406.31	3220406.40	3220406.41	3220406.42	3220406.48	
Individual Tests		-	-	· ·	-	I	
Total Recoverable Arsenic	ma/ka drv wt	-	83	39	16	49	
pH*	pH Units	5.8	-	-	-	-	
Analyot's Commerte	·						
Analyst's Comments							

Amended Report: This certificate of analysis replaces report '3220406-SPv1' issued on 05-Apr-2023 at 9:31 am. Reason for amendment: Additional lead and arsenic added.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Individual Tests			
Environmental Solids Sample Drying*	Air dried at 35°C Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-31, 40-42, 48
Environmental Solids Sample Preparation	Air dried at 35°C and sieved, <2mm fraction. Used for sample preparation May contain a residual moisture content of 2-5%.	-	1-16, 21-26, 28-29, 40-42, 48
Soil Prep Dry & Sieve for Agriculture	Air dried at 35°C and sieved, <2mm fraction.	-	30-31
Dry Matter (Env)	Dried at 103°C for 4-22hr (removes 3-5% more water than air dry), gravimetry. (Free water removed before analysis, non-soil objects such as sticks, leaves, grass and stones also removed). US EPA 3550.	0.10 g/100g as rcvd	4, 8, 10, 14, 27
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2.	-	1-16, 21-26, 28-29, 40-42, 48
Total Recoverable Arsenic	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	2 mg/kg dry wt	1-16, 28-29, 40-42, 48
Total Recoverable Cadmium	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	0.10 mg/kg dry wt	1-16, 28-29
Total Recoverable Lead	Dried sample, sieved as specified (if required). Nitric/Hydrochloric acid digestion, ICP-MS, screen level. US EPA 200.2.	0.4 mg/kg dry wt	21-26
pH*	1:2 (v/v) soil : water slurry followed by potentiometric determination of pH. In-house.	0.1 pH Units	30-31
Heavy Metals, Screen Level	Dried sample, < 2mm fraction. Nitric/Hydrochloric acid digestion US EPA 200.2. Complies with NES Regulations. ICP- MS screen level, interference removal by Kinetic Energy Discrimination if required.	0.10 - 4 mg/kg dry wt	17-20, 27
Organochlorine Pesticides Screening in Soil	Sonication extraction, GC-ECD analysis. Tested on as received sample. In-house based on US EPA 8081.	0.010 - 0.06 mg/kg dry wt	4, 8, 10, 14
Total Petroleum Hydrocarbons in Soil			
C7 - C9	Solvent extraction, GC-FID analysis. In-house based on US EPA 8015.	20 mg/kg dry wt	27
C10 - C14	Solvent extraction, GC-FID analysis. Tested on as received sample. In-house based on US EPA 8015.	20 mg/kg dry wt	27
C15 - C36	Solvent extraction, GC-FID analysis. Tested on as received sample. In-house based on US EPA 8015.	40 mg/kg dry wt	27
Total hydrocarbons (C7 - C36)	Calculation: Sum of carbon bands from C7 to C36. In-house based on US EPA 8015.	70 mg/kg dry wt	27

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed between 30-Mar-2023 and 14-Apr-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Graham Corban MSc Tech (Hons) Client Services Manager - Environmental



Hill Laboratories Limited 101C Waterloo Road Homby Christchurch 8042 New Zealand

T 0508 HILL LAB (44 555 22)

Page 1 of 2

Certificate of Analysis

Client:	HD Geo Limited	Lab No:	3222100	A2Pv1
Contact:	Matt Moore	Date Received:	30-Mar-2023	
	C/- HD Geo Limited	Date Reported:	05-Apr-2023	
	PO Box 9266	Quote No:	91878	
	Waikato Mail Centre	Order No:		
	Hamilton 3240	Client Reference:	HD2807	
		Submitted By:	Matt Moore	

Sample Type: Soil

	-					
Sample Name	Lab Number	As Received Weight (g)	Dry Weight (g)	<2mm Subsample Weight (g dry wt)	Asbestos Presence / Absence	Description of Asbestos Form
ES23 -50	3222100.3	169.0	120.9	56.8	Asbestos NOT detected.	-
ES24 -50	3222100.5	135.1	91.6	54.4	Asbestos NOT detected.	-
ES25 -50	3222100.6	115.3	71.7	59.0	Asbestos NOT detected.	-
ES26 -50	3222100.8	147.5	127.3	57.1	Asbestos NOT detected.	-

Glossary of Terms

Loose fibres (Minor) - One or two fibres/fibre bundles identified during analysis by stereo microscope/PLM.

Loose fibres (Major) - Three or more fibres/fibre bundles identified during analysis by stereo microscope/PLM.

• ACM Debris (Minor) - One or two small (<2mm) pieces of material attached to fibres identified during analysis by stereo microscope/PLM. • ACM Debris (Major) - Large (>2mm) piece, or more than three small (<2mm) pieces of material attached to fibres identified during analysis

by stereo microscope/PLM.

• Unknown Mineral Fibres - Mineral fibres of unknown type detected by polarised light microscopy including dispersion staining. The fibres detected may or may not be asbestos fibres. To confirm the identities, another independent analytical technique may be required. • Trace - Trace levels of asbestos, as defined by AS4964-2004.

For further details, please contact the Asbestos Team.

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Sample No
Asbestos in Soil			
As Received Weight	Measurement on analytical balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	3, 5-6, 8
Dry Weight	Sample dried at 100 to 105°C, measurement on balance. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	0.1 g	3, 5-6, 8
<2mm Subsample Weight	Sample dried at 100 to 105°C, weight of <2mm sample fraction taken for asbestos identification if less than entire fraction. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch.	-	3, 5-6, 8
Asbestos Presence / Absence	Examination using Low Powered Stereomicroscopy followed by 'Polarised Light Microscopy' including 'Dispersion Staining Techniques'. Analysed at Hill Laboratories - Asbestos; 101c Waterloo Road, Christchurch. AS 4964 (2004) - Method for the Qualitative Identification of Asbestos in Bulk Samples.	0.01%	3, 5-6, 8
Description of Asbestos Form	Description of asbestos form and/or shape if present.	-	3, 5-6, 8



CCREDITES

NG LABO

This Laboratory is accredited by International Accreditation New Zealand (IANZ), which represents New Zealand in the International Laboratory Accreditation Cooperation (ILAC). Through the ILAC Mutual Recognition Arrangement (ILAC-MRA) this accreditation is internationally recognised. The tests reported herein have been performed in accordance with the terms of accreditation, with the exception of tests marked * or any comments and interpretations, which are not accredited.

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed on 04-Apr-2023. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

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Rhodri Williams BSc (Hons) Technical Manager - Asbestos



LOCATION ANALYSIS & NET LATENT DEMAND

RETIREMENT VILLAGE & CARE FACILITY

46 TAMAHERE DRIVE, TAMAHERE, HAMILTON

Client: Sanderson Group

Author: WEBSTER Research

Date: 28th March 2024





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Details:

- Type: Location Analysis and Net Latent Demand Report Retirement Village & Care Facility
- Date: 28th March 2024
- Site: Tamahere Country Club 46 Tamahere Drive, Tamahere, Hamilton
- Project Lead at WEBSTER: Angela Webster <u>angela.w@websterresearch.co.nz</u>
- Client Contacts: Brendon Russo brendon@sandersongroup.co.nz

1.0 SUMMARY

1.1 Location Overview and Industry Trends

Location

- The Tamahere Country Club lies within the picturesque Waikato Region, nestled between the vibrant urban centre of Hamilton City and the charming town of Cambridge see maps one and two.
- Both Hamilton City and Cambridge boast a diverse array of recreational, retail, service, and dining options. For instance, the Waikato Hospital is a mere 12-minute drive from the Tamahere Country Club, while Hamilton Airport is just seven minutes.
- In Tamahere several developments and amenities are enhancing the community. These include the opening of a recreational reserve called Tamahere Park and a commercial hub with a supermarket, medical centre, pharmacy, bakery, council office, and serviced offices. Additionally, Tamahere has experienced population growth, with an estimated population of 6,890 as of June 2023, showing an increase of 1,164 people (23.5%) since 2013 and 2,097 people (52.0%) since 2006. Most of the area is zoned as country living and has a minimum lot size of 0.5ha.

Industry Trends

The Tamahere Country Club aligns with several of the latest industry trends, including destination retirement villages, clustering, and regional pull; these trends are summarised below.

- Destination Retirement Villages: The Tamahere Country Club is located in a well-established lifestyle and farming area in a popular semi-rural area. It's a picturesque rural setting, creating the perfect opportunity for a destination retirement village. Destination retirement villages are high-quality villages and care facilities in attractive geographical settings targeting astute residents who often come from a much wider catchment than is traditional for the retirement village.
- Clustering: The Tamahere Country Club forms part of the retirement village clustering trend unfolding in Cambridge and the surrounding area. Clustering denotes the concentration of retirement village facilities within a specific micro-location, resulting in heightened local penetration rates. The success of these retirement villages hinges on attracting residents from beyond their primary catchment area. While multiple retirement villages may coexist within a micro catchment, they often complement one another through size, offerings, or pricing variations.
 - Examples of the diverse retirement village offerings within the Tamahere Country Club area are illustrated in the current supply table 11, the unit typology distribution tables 15 and 16, price point table 24, and village facilities comparison table 34.
 - The array of options cultivates a retirement village sector that attracts residents from a wider socioeconomic and geographical range than might typically be anticipated.
- Regional Pull: There is a shift toward regional locations, as residents are increasingly opting to move greater distances compared to the past. For instance, the significant increase in house prices in Auckland has prompted many potential retirement village residents to seek better value for their money by considering retirement villages in areas like Cambridge and its surrounds.

Overall, these village trends underscore the suitability of Cambridge, its surrounding areas, and The Tamahere Country Club in catering to evolving preferences and demands within the retirement village industry.

1.2 Catchment Areas and Sales Origin Percentages

- Consult maps four, five, and six for an overview of the primary and secondary catchment areas applied within this research and the current distribution and development pipeline of retirement village product identified by the WEBSTER team.
- Approximately 20% of sales at Tamahere Country Club are estimated to originate from residents within the primary catchment area. Residents from the secondary catchment area are estimated to contribute another 20% of the sales, while 22% is estimated to originate from the rest of the Waikato Region. The Auckland Region contributes an estimated 23%, while the remaining 15% of sales are estimated to originate from outside the Waikato and Auckland Regions.

1.3 Local Residential Market

- CoreLogic's March 2024 valuations indicate a median residential dwelling valuation of \$778,600 in the primary catchment area, \$937,600 in the secondary catchment area and \$830,500 in the Waikato Region as a whole.
- CoreLogic's March 2024 valuations indicate a 75th percentile residential dwelling valuation of \$890,000 in the primary catchment area, \$1,071,300 in the secondary catchment area and \$975,600 in the Waikato Region as a whole.
- As an estimated 23% of sales at the Tamahere Country Club originate from the Auckland Region, we have included Auckland Region data in section 5.1.2. The result is a median residential dwelling valuation of \$1,354,800, while the 75th percentile valuation is \$1,624,500.

1.4 Wealth Indicators

- GDP per capita in the Waikato Region in the year ending March 2022 was \$63,713, compared to \$70,616 nationally, while the median annual household income in 2023 was \$108,500 in the Waikato Region compared to \$115,200 nationally.
- The NZ Deprivation Index quantifies the level of deprivation for residents within each small area (SA1). A score of one denotes residents in the least deprived areas, while ten indicates those in the most deprived areas.
 - In the primary catchment area, the index yielded a score of 6.9, compared to 4.7 in the secondary catchment area, 5.4 in the Waikato District, 6.5 in Hamilton City, 6.2 in the Waikato Region, and 5.6 in New Zealand.
 - It should be noted that the Tamahere Country Club is situated in an area characterised by exceptionally low levels of deprivation (see maps 8 and 9).
- Income data from the 2018 census indicates that 5.3% of residents aged 70+ in the primary catchment area have an income of \$70k+/annum, compared to 5.5% in the secondary catchment area, 4.9% in the Waikato Region and 4.8% nationally.
- Household income data from the 2018 census indicates that 33% of households in the primary catchment area had an income of \$100,000+, compared to 42% in the secondary catchment area, 33% in the Waikato Region and 37% nationally.

1.5 Demographic Profiles

Population Characteristics – March 2018 vs. June 2023

- The number of residents living in the primary catchment area aged 70+ increased from 6,945 in March 2018 (Census) to an estimated 8,290 in June 2023; this cohort increased from 7.8% of the total population in 2018 to 8.1% in 2023.
- The number of residents living in the secondary catchment area aged 70+ increased from 11,514 in March 2018 (Census) to an estimated 14,690 in June 2023; this cohort increased from 9.6% of the total population in 2018 to 10.8% in 2023.
- As of June 2023, the estimated percentage of the total population aged 70+ was 8.1% in the primary catchment area, 10.8% in the secondary catchment area, 12.1% in the Waikato Region and 11.3% in the North Island.
 Ethnicity March 2018
- In the primary catchment area, 63.5% of the total residents and 87% of the residents aged 70+ in 2018 identified as European, while in the secondary catchment area, 74% of the total residents and 90% of the residents aged 70+ in 2018 identified as European. In the Waikato Region, 74% of the total and 90% of the residents aged 70+ in 2018 identified as European.

Other – March 2018

- 23% of individuals aged 65+ were widowed within the primary catchment area, compared to 20% in the secondary catchment area and 20% in the Waikato Region.
- One-person households accounted for 24% of the primary catchment area and 19.5% of the secondary catchment area, 23% in the Waikato Region and 22% in the North Island.
- In 2018, unoccupied households comprised 6% of the primary and 5% of the secondary catchment areas dwellings.

1.6 Population Forecasts

- 70+ years: In the primary catchment area, the population aged 70+ years is forecast to increase from a count of 8,290 in 2023 to 16,965 in 2048, a growth of 8,675 residents and 105%. In the secondary catchment area, the population aged 70+ is forecast to increase from a count of 14,690 in 2023 to 27,275 in 2048, a growth of 12,585 residents and 86%.
- 85+ years: In the primary catchment area, the population aged 85+ years is forecast to increase from a count of 1,670 in 2023 to 3,825 in 2048, a growth of 2,155 residents and 129%. In the secondary catchment area, the population aged 85+ is forecast to increase from a count of 2,280 in 2023 to 6,350 in 2048, a growth of 4,070 residents and 179%.
 - \circ \quad Tables seven and eight show the results for the Waikato and Auckland regions.
- Ethnic-Based Population Projections: Although the proportion of Maori individuals within the 70+ age group is projected to rise in both the Waikato District and Hamilton City, the majority of population growth within this age cohort over the next 20 years is expected to consist of individuals identifying as European (see tables 9 & 10).

1.7 Retirement Village Sector

Supply (table 11)

- Within the primary catchment area are an estimated 1,000 retirement village units spread across eleven retirement villages, with all but one featuring either an operational care facility or it has one in the development pipeline. The largest retirement village is Summerset down the Lane, which has 233 retirement village units. It is closely followed by Hilda Ross Retirement Village, which has 218 units.
- Approximately 2,005 retirement village units are distributed among fifteen retirement villages in the secondary catchment area. The largest retirement village in this secondary catchment area is Linda Jones Retirement Village, offering 341 retirement village units, followed by Summerset Rototuna with 244 units.
Vacancy Indicators

• Section 9.2 details the vacancy data currently held by WEBSTER as of March 2023, revealing only a few villas and townhouses available in the area.

Building Consents Data (tables 12, 13 & 14)

- In the Waikato District TA, the number of new retirement village units provided with a building consent during the year-end January 2023 was 46, with a total value of \$24.6 million, an average value of \$535,000 & an average floor area of 205 sqm.
- In the Hamilton City TA, the number of new retirement village units provided with a building consent during the year-end January 2023 was 95, with a total value of \$37 million, an average value of \$391,000 and an average floor area of 119 sqm.
- In the Waipa District TA, the number of new retirement village units provided with a building consent during the year-end of January 2023 was 312, with a total value of \$95 million, an average value of \$305,000 and an average floor area of 113 sqm.

Typology Distribution (table 15)

- Among all retirement villages in the primary catchment area, villas comprise 50% of dwellings, independent apartments comprise 4%, serviced apartments comprise 13%, townhouses account for 22%, and units or cottages constitute 11%.
- In the secondary catchment area, 59% of units are villas, 16% are independent apartments, 10% are serviced apartments, 5% are townhouses, and 9% are units or cottages.
- Contrasted with these figures, the proportion of villas in the Waikato Region is 62%, with independent apartments making up 10%, serviced apartments 10%, townhouses 7%, and units or cottages 11%.

Development Pipeline (table 17)

- The WEBSTER team has found evidence of a retirement village development pipeline within the primary catchment area, which includes an estimated 387 villas, 137 independent and serviced apartments, and 193 townhouses, cottages, and units, which is a total of 717 units. This development pipeline is located at four operating and one new retirement village.
- The WEBSTER team has found evidence of a retirement village development pipeline within the secondary catchment area, which includes an estimated 531 villas, 312 independent and serviced apartments, and zero townhouses, cottages, and units, which is a total of 843 units. This development pipeline is located at five operating and two new retirement villages.

1.8 Retirement Village Sector – Net Latent Demand Forecast Model

Introduction

- The Net Latent Demand (NLD) model finds practical application in assessing risk for operators of retirement villages. Acting as a risk assessment tool, this model offers projections on the potential demand expected from a specific catchment area over a forecast period. By considering existing supply and planned development, the NLD model evaluates the market's capacity to absorb current offerings and predicts potential demand levels post-absorption.
- The model also visually represents the prospective demand levels that can be harnessed for future development projects throughout the projected period once the market has absorbed the current supply and development pipeline.
- The summary results for the primary and secondary catchment areas, Waikato Region, Auckland Region, and New Zealand can be found in table 18, while the comprehensive timeline results are available in Appendix B, tables 30 33.

Primary and Secondary Catchment Areas (table 18)

- Within the primary and secondary catchment areas, the number of residents aged 70+ is forecast to increase from 23,780 in 2024 to 44,240 in 2048, a growth of 20,460. Presently, 3,005 units are available, with an additional 1,560 units in the development pipeline, exclusive of any plans for expansion at Tamahere Country Club. The net latent demand model results indicate that by 2043, 6,580 retirement village units will be in demand in the area if the 70+ penetration rate increases from 15.7% to 18.5% over the forecast period. Upon subtracting the current supply and currently identified development pipeline from this total, the net latent demand is calculated at 2,015 units, averaging 84 units annually over the forecast period.
- Analysis suggests sufficient demand will be generated within the primary and secondary catchment areas to absorb between 43% and 51% of the newly built retirement village units from 2024 to 2029.
- Approximately 40% of the units at Tamahere Country Club are estimated to be occupied by residents originating from the primary and secondary catchment areas.

Waikato Region (table 18)

• Within the Waikato Region, the number of residents aged 70+ is forecast to increase from 65,340 in 2024 to 113,550 in 2048, a growth of 48,210. Presently, 4,609 retirement village units are available, with an additional 3,532 units in the development pipeline. The net latent demand model results indicate that by 2043, 11,773 retirement village units will be in demand in the area if the 70+ penetration rate increases from 8.8% to 13.0% over the forecast period. Upon subtracting the current supply and currently identified development pipeline from this total, the net latent demand is calculated at 3,632 units, averaging 151 units annually over the forecast period.

Analysis suggests that sufficient demand will be generated within the Waikato Region to absorb between 48% and 61% of
the newly built retirement village units from 2024 to 2029. Therefore, it is estimated that over the next seven years, 39% to
52% of the demand for the retirement village units developed in the Waikato Region will need to originate from outside the
Waikato Region. Most of this demand is forecasted to originate from the Auckland Region.

Auckland Region (table 18)

- Within the Auckland Region, the number of residents aged 70+ is forecast to increase from 168,024 in 2024 to 329,280 in 2048, a growth of 161,256. Presently, 13,641 retirement village units are available, with an additional 8,301 units in the development pipeline. The net latent demand model results indicate that by 2043, 36,014 retirement village units will be in demand in the area if the 70+ penetration rate increases from 10.0% to 13.5% over the forecast period. Upon subtracting the current supply and currently identified development pipeline from this total, the net latent demand is calculated at 14,072 units, averaging 586 units annually over the forecast period.
- We have extended the delivery timeline to ten years for the currently identified development pipeline in the Auckland Region. This extension is due to the typical staging of retirement village developments, where subsequent stages remain undelivered until demand has been established within the preceding stage. Consequently, we anticipate a longer delivery period for many retirement village units, of which most are apartments, within the current Auckland Region development pipeline to reach the market compared to those in the pipeline for the total catchment area or the Waikato Region.

Time to Absorption Indicators (graphs 7 - 10)

- Primary and Secondary Catchment Areas: Based on the model's estimation that 40% of the demand for such units will originate from these catchment areas, it suggests that the ongoing retirement village development projects will reach complete market absorption around 2028/2029.
- Waikato Region: If all retirement village demand had to originate from within the Waikato Region, the currently identified development pipeline would take until around 2035 to be absorbed; however, if 60% of demand were to originate from within the Waikato Region, the development pipeline would be absorbed circa 2030/2031.
- Auckland Region: If all retirement village demand had to originate from within the Auckland Region, the currently identified development pipeline would take until around 2033 to be absorbed.
- New Zealand: The currently identified development pipeline would take until around 2033 to be absorbed.

Delivery of Development Pipeline - Staging

- Once civil works commence, a development of the magnitude of a retirement village typically spans five-plus years. The exact timeline is contingent upon the developer's chosen staging strategy and the rate at which units are sold in each stage. Delays in the stages can occur if the sale of units progresses slowly, while rapid sales can expedite the overall timeline. Thus, the distribution of the currently identified development pipeline in the NLD forecast model is based on several variables identified within the development pipeline itself; however, it is only an estimation or indication of the timeline.
- Hence, although the numbers or models may indicate the potential for an oversupply, it is more probable that the delivery of product will be postponed as the sales rate decelerates over the staged delivery of retirement village units.

1.9 Care Facilities

Supply (table 20): Table 20 summarises the current care facilities supply within the primary and secondary catchment areas. The results indicate that the primary catchment area hosts around 1,054 care beds and suites across 14 facilities, while the secondary catchment area houses an estimated 995 care beds/suites within 15 facilities.

Development Pipeline (table 21): WEBSTER has identified a development pipeline that includes 269 care beds and suites in the primary catchment area and an estimated 116 in the secondary catchment area. However, it is essential to acknowledge that the indicated numbers of care beds and suites are approximate, given that much of the development is in its initial planning phases. This data excludes the care facility development pipeline at the Tamahere Country Club.

Care Beds and Suites - Forecast Demand Indicators (table 22)

- There are currently sufficient care beds and suites located in the primary catchment area to accommodate 62% of the population aged 85+ years living in the area; the result is 42% for the secondary catchment area, resulting in a 50% 85+ years penetration rate for the total catchment area, which remains higher than the 38% recorded for the Waikato and Auckland Regions and the North Island. The result indicates that the primary catchment area is a significant supplier of care beds and suites for the Waikato Region.
- Total Catchment Area: If 40% of the population growth within the 85+ age group from 2024 to 2048 necessitates a care bed or suite, it would require 2,435 care beds and suites. Additionally, 78 care beds and suites may be needed to replace aging product, and 80 more are necessary to maintain a 2% vacancy rate. Consequently, the overall demand for care beds and suites is 2,593, derived from these three factors, averaging 108 per year throughout the forecast period. With an estimated potential development pipeline of 385 more, it suggests that the total catchment area is expected to meet its average demand for around four years over the forecast period.

Waikato Region: If 40% of the population growth within the 85+ age group from 2024 to 2048 necessitates a care bed or suite, it would require 7,098 care beds and suites. Additionally, 186 care beds and suites may be needed to replace aging product, and 216 more are necessary to maintain a 2% vacancy rate. Consequently, the overall demand for care beds and suites is 7,500, derived from these three factors, averaging 313 per year throughout the forecast period. With an estimated potential development pipeline of 861 more, it suggests that the total catchment area is expected to meet its average demand for around three years over the forecast period.

Timing Indicators (graphs 12 & 13)

- The findings suggest that maintaining the primary and secondary catchment areas as significant providers of care beds and suites for the broader Waikato Region is imperative until 2033. Failure to do so could lead to a potential oversupply.
- The Waikato Region is expected to possess sufficient care beds and suites up to approximately 2028. Beyond this point, there is a projected surge in demand, with numbers escalating from 4,608 in 2028 to 10,980, with an estimated additional 6,372 care beds and suites needed.

1.10 Retirement Village and Care Suite Product Differentiation

Tables 24 to 28 in section 12.0 of this report offer an overview of the diverse array of retirement village products accessible in the area. This variety of offerings includes a range of typologies, bedroom configurations, floor plan sizes, garage options, and price points, providing prospective residents with ample choices to meet their immediate and evolving needs as they transition into retirement accommodation.

1.11 Closing Remarks and Key Points

Villa Typology Demand Indicators

• Tamahare Country Club and other retirement village operators in the area can expect strong demand for the villa typology in the foreseeable future; this is primarily due to the prevailing trend of higher-density retirement village development in areas such as Auckland and Tauranga, driven by land constraints and the associated land cost. By offering larger-scale typologies, such as two and three-bedroom villas with single and double garages, the Tamahere Country Club will also pull demand from a wider area than a traditional retirement village catchment, as many potential retirement village residents look for unit typologies that provide larger footprints, garaging and more privacy than that offered by the higher density typologies.

The Significance of Planning and Zoning for Residential Development of Retirement Villages

- Providing retirement village development within the area increases the capacity of the area to cater to the specific needs of an aging population through purpose-built accommodation options.
- Retirement village living entails residing "at home" within a community living category, accompanied by supporting wraparound services such as communal and open space amenities. These facilities cater to the needs of residents and often offer a continuum of care if required. Hence, retirement villages have specific functional and operational requirements.
- Modern villages necessitate more significant sites in existing urban environments, and such suitable locations are scarce.
- The planning regulations for urban environments do not adequately address the unique features of retirement villages or the different specialist units and amenities they offer. Consequently, there is a lack of appropriate provisions for retirement villages within existing planning regimes. Therefore, while there may appear to be residential development capacity at first glance, it may not be sufficient to accommodate a retirement village of the required size to provide the full range of services sought by operators such as the Sanderson Group.

Summary:

- In the upcoming years, the Cambridge, Hamilton, and wider Waikato Region will need to attract demand from areas beyond their boundaries as a substantial amount of development is underway. A significant portion of this demand is expected to originate from the Auckland Region, as seen with the Tamahere Country Club, which already draws 23% of its sales from Auckland.
- Tauranga has historically been New Zealand's retirement capital, but due to constraints in land and development, the growth of retirement villages has slowed in recent years. Also, while Auckland is expanding its retirement village sector, approximately 73% of its development focuses on apartments, potentially prompting residents to seek more extensive, private and price-competitive accommodation options elsewhere.
- The Tamahere and Cambridge area offers retirement village opportunities and local amenities comparable to those in Tauranga, suggesting it could become the next sought-after destination for retirees.

2.0 INTRODUCTION

2.1 Objective/Aim

This report aims to conduct an economic analysis of the retirement village sector situated within the locality of the Tamahere Country Club. It identifies key factors driving demand and predicts the need for further retirement village offerings in the area. The report seeks to provide insights into the origins of Tamahere Country Club residents and forecasted demand from these various geographical origins. It primarily delves into the interplay between supply and demand within the local retirement village and care facility market, specifically focusing on location and net latent demand indicators.

2.2 Methodology

The following economic analysis has been collaboratively developed over a decade by myself in conjunction with various retirement village operators. Its primary objective is to offer operators an evaluation of a particular site or the potential of a retirement village. The report identifies the risks and opportunities associated with the site or retirement village under consideration.

Our standard site-specific report encompasses a location analysis and net latent demand assessment, offering in-depth insights into the site and its immediate environs. It provides data on accessibility to amenities, existing supply and development pipeline, projections of net latent demand, demographic profiles, and residential market indicators. Moreover, this report delivers timing forecasts spanning 2024 to 2048.



Map 1: Location Overview

Source: WEBSTER

3.0 LOCATION OVERVIEW & INDUSTRY TRENDS

3.1 Location Overview

- The Tamahere Country Club lies within the picturesque Waikato Region, nestled between the vibrant urban centre of Hamilton City and the charming town of Cambridge (Cambridge was named New Zealand's "most beautiful large town" in 2019).
- Cambridge, situated 24 kilometres southeast of Hamilton City, boasts a scenic setting along the banks of the Waikato River, earning it the moniker "The Town of Trees and Champions."
- Hamilton City, the fourth most populous city in New Zealand, and Cambridge, the third-largest urban area in the Waikato Region (after Hamilton and Taupo), offer a wealth of amenities and attractions.
- Both Hamilton City and Cambridge boast a diverse array of recreational, retail, service, and dining options. For instance, the Waikato Hospital is a mere 12-minute drive from the Tamahere Country Club, while Hamilton Airport is just seven minutes away.
- Climate: Summers bring warmth, while cold, wet, and windy conditions characterise winters.

NZ Railway Network HospitalSite HAMILTON CITY StateHighway 10km LINZ NZ Primary Parcels Waikato Hospital Golf Course SH1B Supermarkets **O** Tamahere Country Club Rivers SH1 river Hamilton Retail **Tieke Golf** Airport Estate Retail Residential Residential CAMBRDIGE Built Up Area Leisure Areas Park Nature Reserve

Map 2: Location Overview

Source: WEBSTER

3.2 Tamahere

- In Tamahere, just outside Hamilton City, several developments and amenities are enhancing the community. These include the opening of a new recreational reserve called Tamahere Park in 2019, which features sports fields, a destination playground, a skate park, and a commercial hub with a supermarket, medical centre, pharmacy, bakery, council office, and serviced offices.
- Additionally, Tamahere has experienced population growth, with an estimated population of 6,890 as of June 2023, showing an increase of 1,164 people (23.5%) since 2013 and 2,097 people (52.0%) since 2006.
- Most of the area is zoned as country living and has a minimum lot size of 0.5ha.

3.3 Industry Trends

The Tamahere Country Club aligns with several of the latest industry trends.

- **Destination Retirement Villages:** Tamahere Country Club is located in a well-established lifestyle and farming area in a popular semi-rural area. It's a picturesque rural setting, creating the perfect opportunity for a destination retirement village. Destination retirement villages are high-quality retirement villages and care facilities in attractive geographical settings targeting astute residents who often come from a much wider catchment.
 - As a destination retirement village, the Tamahere Country Clus is characterised by its high-quality facilities and appealing geographical setting. It generates sales from residents from a broader geographical area than a traditional retirement village's sales distribution.
- **Clustering**: The Tamahere Country Club forms part of the retirement village clustering trend unfolding in Cambridge and the surrounding area.
 - Clustering denotes the concentration of retirement village facilities within a specific micro-location, resulting in heightened local penetration rates. These villages' success hinges on attracting residents from beyond their primary catchment area. While multiple retirement villages may coexist within a micro catchment, they often complement one another through size, offerings, or pricing variations.
 - Cambridge and its surrounding areas are evolving into a "retirement village cluster," indicating the need to draw demand from a wide geographic area. This is notably evident for the Tamahere Country Club, with approximately 62% of its residents coming from the Waikato Region, 23% from the Auckland Region, and 15% from other areas.
 - The benefits of retirement village clustering in an area include job creation, heightened consumer spending, and increased economic activity. This clustering also facilitates the freeing up of family homes and provides greater accommodation choices for the older generation. Overall, retirement villages can significantly enhance the economic vitality of a community by creating employment opportunities, stimulating consumer spending, and fostering the growth of local businesses.
- **Regional Pull:** There is a shift toward regional locations, as residents are increasingly opting to move greater distances compared to the past. For instance, the significant increase in house prices in Auckland has prompted many potential retirement village residents to seek better value for their money by considering retirement villages in areas like Cambridge and its surrounds.
 - Potential retirement village residents are increasingly willing to relocate greater distances to secure an appealing retirement village experience.

Overall, these village trends underscore the suitability of Cambridge, its surrounding areas, and The Tamahere Country Club in catering to evolving preferences and demands within the retirement village industry.



RETIREMENT VILLAGE DISTRIBUTION & CATCHMENT AREA MAPS 4.0

Maps – Retirement Village Distribution & Catchment Areas 4.1

Map three illustrates the population density distribution of individuals aged 65 and above within statistical area one (SA1) in 2018, alongside the locations of currently operational retirement villages.





Source: WEBSTER

Map four delineates the primary and secondary catchment areas utilised in this analysis, along with the current operational facilities and those in the development pipeline within the retirement village sector.





Source: WEBSTER

Map 5: Retirement Villages - Operating and Development Pipeline – Primary Catchment Area



Source: WEBSTER



Tamahere Eventide Home and Retirement Village

Map 6: Retirement Villages - Operating and Development Pipeline – Secondary Catchment Area



Source: WEBSTER

Retirement Villages - Operating
OWNER/OPERATOR
Ryman
• Bupa
Metlifecare
Summerset
 Arvida
• Oceania
• Other
TOTAL RV UNITS
> 432
300
200
0 100
O <1
Retirement Villages - Operating - DP
\bigcirc
Retirement Villages - New - DP
Tamahere Country Club PCA
Tamahere Country Club SCA



Summerset Cambridge

4.2 Sales Origin Percentages

Approximately 20% of sales at Tamahere Country Club are estimated to originate from residents within the primary catchment area. Residents from the secondary catchment area are estimated to contribute another 20% of the sales, while 22% is estimated to originate from the rest of the Waikato Region. The Auckland Region contributes an estimated 23%, while the remaining 15% of sales are estimated to originate from outside the Waikato and Auckland Regions.

5.0 RESIDENTIAL MARKET VALUATIONS

5.1 CoreLogic's Valuation Data

5.1.1 Primary and Secondary Catchment Areas

CoreLogic's March 2024 valuation data for the primary catchment area indicates the following values:

- Residential Dwellings: \$778,600 median, \$890,000 75th percentile 19,779 observed properties
- Lifestyle Blocks: \$1,751,800 median, \$2,153,800 75th percentile 3,593 observed properties
- Apartments: \$544,000 median, \$642,400 75th percentile 661 observed properties
- \circ $\;$ Flats: \$632,900 median, \$722,900 75 th percentile 4,277 observed properties

CoreLogic's March 2024 valuation data for the secondary catchment area indicates the following values:

- o Residential Dwellings: \$937,600 median, \$1,071,300 75th percentile 35,631 observed properties
- Lifestyle Blocks: \$1,467,100 median, \$1,781,600 75th percentile 4,091 observed properties
- Apartments: \$754,100 median, \$806,000 75th percentile 44 observed properties
- Flats: \$632,300 median, \$692,500 75th percentile 2,459 observed properties

Table 1: Residential Dwellings and Lifestyle Blocks – Valuations Data - March 2024

		Residential Dwe	ellings		Lifestyle Blocks				
		75 th	No. Properties		75 th	No. Properties			
	Median	Percentile	Observed	Median	Percentile	Observed			
Primary Catchment Area	\$778,600	\$890,000	19,779	\$1,751,800	\$2,153,800	3,593			
Secondary Catchment Area	\$937,600	\$1,071,300	35,631	\$1,467,100	\$1,781,600	4,091			
Total Catchment Area	\$880,900	\$1,006,600	55,410	\$1,600,200	\$1,955,600	7,684			
Waikato Region	\$830,500	\$975,600	133,625	\$1,244,800	\$1,530,300	27,478			
Auckland Region	\$1,354,800	\$1,624,500	328,801	\$1,945,600	\$2,456,900	20,154			
New Zealand	\$923,700	\$1,100,900	1,238,370	\$1,266,100	\$1,572,500	147,339			

Source: WEBSTER, based on CoreLogic AVM model data

Table 2: Apartments and Flats – Valuations Data - March 2024

		Apartments		Flats				
	75 th No. Properties		No. Properties		75 th	No. Properties		
	Median	Percentile	Observed	Median	Percentile	Observed		
Primary Catchment Area	\$544,000	\$642,400	661	\$632,900	\$722,900	4,277		
Secondary Catchment Area	\$754,100	\$806,000	44	\$632,300	\$692,500	2,459		
Total Catchment Area	\$557,100	\$652,600	705	\$632,700	\$711,800	6,736		
Waikato Region	\$570,400	\$803,700	1,453	\$614,700	\$701,300	10,163		
Auckland Region	\$700,500	\$915,400	41,497	\$822,900	\$942,000	81,674		
New Zealand	\$683,300	\$889,500	58,931	\$672,045	\$770,114	190,809		

Source: WEBSTER, based on CoreLogic AVM model data

5.1.2 Auckland Region

As an estimated 23% of Tamahere Country Club residents originate from the Auckland Region, we have included the valuations for this region in the tables above and the graph on the following page.

CoreLogic's March 2024 valuation data for the Auckland Region indicates the following values:

- o Residential Dwellings: \$1,354,800 median, \$1,624,500 75th percentile 328,801 observed properties
- o Lifestyle Blocks: \$1,945,600 median, \$2,456,900 75th percentile 20,154 observed properties
- Apartments: \$700,500 median, \$915,400 75th percentile 41,497 observed properties
- Flats: \$822,900 median, \$942,000 75th percentile 81,674 observed properties

Graph 1: CoreLogic Valuations – Residential Dwellings – March 2024 and an 80% Benchmark



Source: WEBSTER, based on CoreLogic AVM model data

The following map illustrates the location and development distribution density between Hamilton, Tamahere and Cambridge. Most of the Tamahere area is zoned as country living (lifestyle blocks) and has a minimum lot size of 0.5ha.

Map 7: Tamahere



Source: WEBSTER; esri

6.0 WEALTH INDICATORS

6.1 Economic Indicators

- The economic profile of the Waikato Region is characterised by a diverse economy with significant contributions from a range of sectors. The region's GDP 2021 was \$29.2 billion, representing around 9% of the national economy. Key sectors that drive the Waikato's economy include agriculture, manufacturing, hydroelectric and geothermal electricity generation, construction, healthcare, social assistance, and education and training. Agriculture plays a vital role in the region, with different districts specialising in various agricultural activities, such as dairy farming, forestry, food manufacturing, and geothermal energy production.
- The Waikato Region has a well-diversified economy, with a mix of primary industries, services, and manufacturing sectors contributing significantly to its GDP. While the region has a higher concentration in primary industries like dairy cattle farming and manufacturing than the national economy, it still maintains a relatively diversified economic landscape. The region's economy is also influenced by urbanisation trends, driving urban construction and housing demand.

Table 3: Economic Indicators

	Waikato District TA	Hamilton City TA	Waikato Region	New Zealand
GDP/Capita – year ending March 2022	n/a	n/a	\$63,713	\$70,617
Percentage change 2021/2022	n/a	n/a	9.7%	9.9%
Median Annual Household Income 2023	n/a	n/a	\$108,500	\$115,200
Change 2022/2023	n/a	n/a	7.5%	9.7%
% of H/H's with an income of \$100K+ 2018	38.8%	32.5%	30.6%	34.3%
Mean House Value year to Dec. 2023	\$783,400	\$781,700	\$810,100	\$904,500
New Dwelling Consents year ending Dec. 2023*	7.7	6.9	6.8	7.2
Change 2022/2023	-37.9%	-14.8%	-26.9%	-25.8%
Mortgage Affordability Index – June 2023 quarter	0.49	0.50	0.52	0.57
Change in Mortgage Affordability Index	-4.5%	-7.1%	-6.0%	-4.8%
Employment Rate – yr to Dec. 2023**	69.5%	67.0%	66.4%	69.4%
Deprivation Index 2018	5.4	6.5	6.2	5.6
Source: MBIE <u>http://webrear.mbie.govt.nz</u>	* No. of new dwellin	g consents per 10,000 resider	nts ** % of working	-age people employed

6.2 Deprivation Scores/Wealth Indicators

- The NZ Deprivation Index is the level of deprivation for people in each small area (SA1). One represents people living in the least deprived areas, and ten represents people living in the most deprived areas. See Appendix A for more details.
- The result was 6.9 for the primary catchment area, compared to 4.7 for the secondary catchment area, 5.4 for the Waikato District, 6.5 for the Hamilton City TA, 6.2 for the Waikato Region and 5.6 for New Zealand.
- The Tamahere Country Club is situated in an area characterised by extremely low levels of deprivation.

Map 8: New Zealand Deprivation Index – SA1 – No.1



Source: WEBSTER; Ministry of Health; Eagle

Map 9: New Zealand Deprivation Index – SA1 – No.2



Source: WEBSTER, based on data from the Ministry of Health

6.3 Income Distribution Indicators

Image 2: Percentage 70+ yrs. Residents with a Personal Income of \$70,000+



Income data from the 2018 census indicates that 5.3% of residents aged 70+ yrs. in the PCA have an income of \$70k+/annum, compared to 5.5% in the SCA and 4.9% in the Waikato Region, 4.8% nationally.

Source: WEBSTER; based on data sourced from Stats NZ

Household income data from the 2018 census indicates that 33% of households in the PCA had an income of \$100,000 plus, compared to 42% in the SCA, 33% in the Waikato Region and 37% in New Zealand.



Graph 2: Household Income Distribution 2018

Source: WEBSTER; based on data sourced from Stats NZ

7.0 DEMOGRAPHIC PROFILE INDICATORS

The following table provides a demographic profile for each catchment area based on the results of the 2018 Census and the population forecasts recently released by STATS NZ, which are in part based on the Census results.

Table 4: Demographic Profile Indicators

	Primary Secondary Waikato Catchment Area Catchment Area Region			North Island					
Population Counts	Total	70+ yrs.	Total	70+ yrs.	Total	70+ yrs.	Total	70+ yrs.	
Population – March 2018 (Census)	89,376	6,945 (7.8%)	120,375	11,514 (9.6%)	458,202	49,530 (10.8%)	3,594,552	358,425 (10.0%)	
Population – June 2023 (Est.)	102,360	8,290 (8.1%)	136,350	14,690 (10.8%)	519,900	62,910 (12.1%)	3,937,700	446,850 (11.3%)	
Ethnicity – Estimated* - 2018	Total*	70+ yrs.*	Total*	70+ yrs.*	Total*	70+ yrs.*	Total*	70+ yrs.*	
European	63.5%	86.8%	74.0%	90.2%	74.1%	90.1%	65.3%	84.6%	
Asian	17.6%	6.4%	13.8%	4.8%	9.7%	2.8%	17.1%	6.9%	
Māori & Pacific Peoples	29.8%	8.6%	22.8%	6.8%	28.5%	9.2%	28.6%	10.2%	
Other - 2018	Total	70+ yrs.	Total	70+ yrs.	Total	70+ yrs.	Total	70+ yrs.	
Home Ownership - Indicator	38.3%	63.5%	54.3%	75.4%	52.1%	73.8%	50.1%	71.2%	
Mortgage Free – Indicator	32.4%	84.6%	30.6%	82.8%	35.2%	85.2%	33.8%	79.6%	
Personal Income \$100K+	5.9%	2.7%	8.3%	2.3%	6.2%	2.3%	7.9%	2.4%	
Widowed Residents – 65+ Years	4.2%	23.1%	4.6%	19.9%	5.1%	19.9%	4.1%	18.4%	
One Person Households	2	3.7%		19.5%		22.9%		21.9%	
Unoccupied Dwellings**	6	.0%		5.1%		15.2%	9.7%		

Source: WEBSTER; based on data from Stats NZ * May add to more than 100% - respondents can choose more than one ethnicity ** Empty Dwellings

Population Counts - March 2018 (Census)

- The primary catchment area had 89,376 residents, of which 6,945 or 7.8% were aged 70+ years.
- The secondary catchment area had 120,375 residents, of which 11,514 or 9.6% were aged 70+ years.
- The Waikato Region had 458,202 residents, of which 49,530 or 10.8% were aged 70+ years.

Population Estimates - June 2023 (Est.)

- The primary catchment area had 102,360 residents, of which 8,290 or 8.1% were aged 70+ years.
- The secondary catchment area had 136,350 residents, of which 14,690 or 10.8% were aged 70+ years.
- The Waikato Region had 519,900 residents, of which 62,910 or 12.1% were aged 70+ years.
 - From March 2018 to June 2023, the Waikato Region experienced an increase in the number of residents aged 70+ years of 13,380, and the percentage of the population aged 70+ years increased from 10.8% to 12.1%.

Ethnicity – March 2018 (Census)

- In the primary catchment area, 63.5% of the total residents and 86.8% of residents aged 70+ years in 2018 identified as European, while 29.8% of the total residents and 8.6% of those aged 70+ years identified as Māori & Pacific Peoples.
- In the secondary catchment area, 74.0% of the total residents and 90.2% of residents aged 70+ years in 2018 identified as European, while 22.8% of the total residents and 6.8% of those aged 70+ years identified as Māori & Pacific Peoples.
- In the Waikato Region, 74.1% of the total residents and 90.1% of residents aged 70+ years in 2018 identified as European, while 28.5% of the total residents and 9.2% of those aged 70+ years identified as Māori & Pacific Peoples.

Other - March 2018 (Census)

- In 2018, the primary catchment area's total population had a home ownership percentage of 38.3%, while those aged 70+ years had a homeownership percentage of 63.5%. Homeownership was significantly higher in the secondary catchment area, with 54.3% of the total population and 75.4% of those aged 70+ years having homeownership in 2018.
 - The Waikato Region had a homeownership rate of 52.1% for the total population and 73.8% for those aged 70+.
 Of those aged 70+ years with homeownership, around 85% are also mortgage-free.
 - The percentage of individuals in the primary catchment area that made \$100,000 or more in 2018 was 5.9% of the total population and 2.7% of those aged 70+ years.
- Within the primary catchment area, 23.1% of individuals aged 65 and older were widowed, compared to 19.9% in the secondary catchment area and 19.9% in the Waikato Region.
- One-person households accounted for 23.7% of the primary catchment area and 19.5% of the secondary catchment area, 22.9% in the Waikato Region and 21.9% in the North Island.
- In 2018, unoccupied households comprised 6.0% of the primary and 5.1% of the secondary catchment areas dwellings.

8.0 POPULATION PROJECTIONS

8.1 Population Projections – 70+ years

The following tables provide the population forecasts for the primary and secondary catchment areas and the Waikato Region for a range of age groups from 2023 to 2048. They illustrate the market size and growth forecasted within each age cohort.

- The 70+ years population within the primary catchment area is predicted to increase from a count of 8,290 in 2023 to 16,965 in 2048—a growth of 8,675 residents and an increase of 105%.
- The 70+ years population within the secondary catchment area is predicted to increase from a count of 14,690 in 2023 to 27,275 in 2048—a growth of 12,585 residents and an increase of 86%.
- The 70+ years population within the Waikato Region is predicted to increase from a count of 62,910 in 2023 to 113,550 in 2048—a growth of 50,640 residents and an increase of 80%.

Table 5: Primary Catchment Area – Population Forecasts by Age Group 2023/2048

					•			
Age Group	2023	2028	2033	2038	2043	2048	Count Change	% Change
70 – 74 years	2,735	3,430	4,015	4,320	5,025	4,915	2,180	80%
75 - 79 years	2,335	2,520	3,130	3,705	3,990	4,685	2,350	101%
80 - 84 years	1,550	2,005	2,130	2,715	3,250	3,540	1,990	128%
85+ years	1,670	1,855	2,330	2,610	3,160	3,825	2,155	129%
70+ years	8,290	9,810	11,605	13,350	15,425	16,965	8,675	105%

Source: WEBSTER, based on medium scenario population forecasts from Stats NZ

Table 6: Secondary Catchment Area – Population Forecasts by Age Group 2023/2048

Age Group	2023	2028	2033	2038	2043	2048	Count Change	% Change
70 – 74 years	5,300	5,875	6,755	6,810	7,960	7,840	2,540	48%
75 - 79 years	4,325	4,880	5,460	6,315	6,420	7,485	3,160	73%
80 - 84 years	2,785	3,630	4,135	4,700	5,465	5,600	2,815	101%
85+ years	2,280	2,785	3,720	4,555	5,365	6,350	4,070	179%
70+ years	14,690	17,170	20,070	22,380	25,210	27,275	12,585	86%

Source: WEBSTER, based on medium scenario population forecasts from Stats NZ

Table 7: Waikato Region – Population Forecasts by Age Group 2023/2048

Age Group	2023	2028	2033	2038	2043	2048	Count Change	% Change
70 – 74 years	23,690	26,720	30,240	30,550	32,820	30,940	7,250	31%
75 - 79 years	18,420	21,590	24,490	27,910	28,380	30,680	12,260	67%
80 - 84 years	11,550	15,230	18,010	20,700	23,860	24,480	12,930	112%
85+ years	9,250	11,520	15,350	19,300	23,160	27,450	18,200	197%
70+ years	62,910	75,060	88,090	98,460	108,220	113,550	50,640	80%

Source: WEBSTER, based on medium scenario population forecasts from Stats NZ

Table 8: Auckland Region – Population Forecasts by Age Group 2023/2048

Age Group	2023	2028	2033	2038	2043	2048	Count Change	% Change
70 – 74 years	58,830	69,670	82,780	88,640	92,890	83,300	24,470	42%
75 - 79 years	45,480	53,410	64,190	76,820	82,730	87,220	41,740	92%
80 - 84 years	30,190	38,630	46,020	55,900	67,510	73,260	43,070	143%
85+ years	26,650	33,810	44,360	55,640	69,120	85,500	58,850	221%
70+ years	161,150	195,520	237,350	277,000	312,250	329,280	168,130	104%

Source: WEBSTER, based on medium scenario population forecasts from Stats NZ

Graph 3: Age Profile Population Forecasts – 70+ yrs. Population – Waikato Region



Source: WEBSTER, based on medium scenario population forecasts from Stats NZ

8.2 Ethnic-Based Population Projections

The following table outlines the median projections for ethnic populations within the Waikato District and Hamilton City (TA), as provided by Stats NZ. Understanding the ethnic composition of the area is crucial, as it can significantly influence the penetration rates applied in the net latent demand (NLD) model.

	· · · · · · · · · · · · · · · · · · ·									
	Euro	pean		Asian	N	lāori	Pacific P	eoples	Total Po	pulation
Year as at June	Total	70+ years	Total	70+ years	Total	70+ years	Total	70+ years	Total	70+ years
2023	70,300	6,940	6,240	490	24,100	950	4,650	180	91,500	8,290
2043	100,100	16,390	9,930	1,340	34,800	2,950	8,450	540	124,000	19,440
Count Change*	29,800	9,450	3,690	850	10,700	2,000	3,800	360	32,500	11,150
% Change	42%	136%	59%	173%	44%	211%	82%	200%	36%	134%
Source: WEBSTER, ba	sed on data fror	m Stats NZ		* Note: ca	an add to n	nore than 100	% as people can	identify with r	more than one o	ethnic group

Table 9: Ethnic Population Projections – Waikato District (TA)

According to Stats NZ's projections, the medium scenario for subnational ethnic populations in the Waikato District anticipates a 134% rise in residents aged 70 and older, with an increase of 11,150 individuals between 2023 and 2043.

- The number of residents aged 70 and older who identify as European is expected to climb from 6,940 in 2023 to 16,390 in 2043, marking a growth of 9,450 residents and a 136% increase.
- The number of residents aged 70 and older identifying as Māori is projected to rise from 950 in 2023 to 2,950 in 2043, reflecting a growth of 2,000 residents and a 211% increase.

Table 10: Ethnic Population Projections – Hamilton City (TA)

	Euro	pean	As	ian	Ma	iori	Pacific P	eoples	Total Po	pulation
Year as at June	Total	70+ years	Total	70+	Total	70+	Total	70+ years	Total	70+ years
2023	111,400	12,990	39,500	1,520	45,000	1,330	12,800	280	181,500	15,570
2043	125,000	18,890	72,200	4,640	64,700	3,810	21,200	1,380	229,100	27,200
Count Change*	13,600	5,900	32,700	3,120	19,700	2,480	8,400	1,100	47,600	11,630
% Change	12%	45%	83%	205%	44%	186%	66%	393%	26%	75%
Count Change* % Change	13,600 12%	5,900 45%	32,700 83%	3,120 205%	19,700 44%	2,480 186%	8,400 66%	1,100 393%	47,600 26%	

Source: WEBSTER, based on data from Stats NZ

* Note: can add to more than 100% as people can identify with more than one ethnic group

According to Stats NZ's projections, the medium scenario for subnational ethnic populations in Hamilton City (TA) predicts a 75% surge in residents aged 70 and older, with an increase of 11,630 individuals between 2023 and 2043.

- The number of residents aged 70 and older who identify as European is expected to rise from 12,990 in 2023 to 18,890 in 2043, showing a growth of 5,900 residents and a 45% increase.
- The number of residents aged 70 and older identifying as Asian is projected to climb from 1,520 in 2023 to 4,640 in 2043, reflecting growth of 3,120 residents and a 205% increase.
- The number of residents aged 70 and older identifying as Māori is anticipated to increase from 1,330 in 2023 to 3,810 in 2043, indicating a growth of 2,480 residents and a 186% increase.

9.0 RETIREMENT VILLAGES

9.1 Retirement Villages – Current Distribution & Details

The following table displays retirement villages located within each catchment area. Arranged chronologically by their estimated year of establishment, the list progresses from the earliest to the most recent. It includes details such as the retirement village's address, the count of independent and assisted living units, and an indication of the presence of a care facility.

Table 11: Operating Retirement Villages

		Primary Catchment Area					
Name	Address	Parent Company	Est. Year	IL	AL	Total	Care
			Opened	Units	Units	Units	Facility (beds)
Windsor Lifestyle Estate	20 Sandes Street, Ohaupo	Radius Care	1987	22	0	22	Yes (76 + 20 DP)
Wilson Carlile Village	562 Grey Street, Hamilton	Metlifecare	1989	10	0	10	Yes (59)
Tamahere Eventide Home and		Tamahere Eventide Home					
Retirement Village	61 Bollard Road, Tamahere	Trust	1998	145	0	145	Yes (105)
Hilda Ross Retirement Village	30 Ruakura Road, Ruakura, Ham.	Ryman	2002	167	51	218	Yes (151)
Cascades Retirement Village	55 Pembroke Street, Hamilton	Arvida	2003	5	32	37	Yes (74 + 30 DP)
Summerset down the Lane	206 Dixon Road, Hamilton	Summerset	2011	183	50	233	Yes (49)
Roseland Park	18 Fox Street, Hamilton	Karaka Pines Group	2014	54	0	54	No
		Hurst Lifecare & Te Awa					
Te Awa Lifecare Village	1866 Cambridge Road, Cambridge	Lifecare Village	2018	44	36	80	Yes (44)
Tamahere Country Club	46 Tamahere Drive, Hamilton	Sanderson Group Ltd	2020	128	0	128	Yes (30 DP)
Atawhai Assisi Home and		Tamahere Eventide Home					
Retirement Village	158 Matangi Road, Hamilton	Trust	2022	17	0	17	Yes (85)
Patrick Hogan Retirement		_					
Village	1881 Cambridge Road, Cambridge	Ryman	2023	56	0	56	Yes (80 DP)
lotal				831	169	1,000	
		Secondary Catchment Are	a				
Name	Address	Parent Company	Est. Year	IL.	AL	Total	Care
Matlife come Ct. An drawda	11 Druge Street, Combridge	Matliference	1075	Onits	Onits	Units	Facility (beds)
Metifecare St Andrew S	41 Bryce Street, Cambridge	Metilfecare	1975	65	0	65	Yes (24)
Awatere Village	1340 Victoria Street, Hamilton	Oceania Combolida a Double and	1983	63	40	103	Yes (90)
Combridge Postboyen	6 Vagal Straat Cambridge	Cambridge Restnaven	1096	00	17	05	
Cambridge Restnaven	o vogel street, cambridge	Alandalo Potiromont	1960	05	12	35	fes (54 + DP)
Alandale Village	1199 River Road Hamilton		1988	133	8	141	No
		Retirement Village	1500	100	U		110
Netherville Retirement Village	4 Admiral Crescent, Hamilton	Netherville Inc	1994	103	0	103	No
Forest Lake Gardens	Cnr Garnett Ave. Hamilton	Metlifecare	2002	198	0	198	No
Lauriston Park Retirement							
Village	91 Coleridge Street, Cambridge	Arvida	2009	198	0	198	Yes (63)
St Kilda Retirement Village	91 Alan Livingston Dr, Cambridge	Вира	2014	99	0	99	Yes (80)
St Andrews Retirement Village	26 Delamare Road, Hamilton	Bupa	2016	62	0	62	Yes (40)
Cambridge Oaks	14 Terry Came Drive, Cambridge	Freedom Lifestyle Villages	2017	204	0	204	No
Linda Jones Retirement Village	1775 River Road, Hamilton	Ryman	2018	248	93	341	Yes (120)
Summerset Rototuna	39 Kimbrae Drive, Hamilton	, Summerset	2018	188	56	244	Yes (63)
Foxbridge Retirement Village	60 Minogue Drive Hamilton	Bupa	2019	79	0	79	Yes (85)
Karaka Pines - Rototuna	Cnr Hare Puke Drive & Borman Rd	Karaka Pines Group	2022	28	0	28	No.
Summerset Cambridge	1 Mary Ann Drive, Cambridge	Summerset	2022	45	0	45	Yes (56 DP)
Total	i wary Ann Drive, cambridge	Junneljet	2025	1 706	200	2 005	163 (30 DF)
i otui				1,790	205	2,005	

Source: WEBSTER* Includes the recently completed 15 townhouses**New care facility with 68 care suites will be finished H1 2023Note: WEBSTER classifies a retirement village as one that is registered with the New Zealand Companies Office Retirement Village Register.

IL = Independent Living AL = Assisted Living

• Within the primary catchment area are an estimated 1,000 retirement village units spread across eleven retirement villages, with all but one featuring either an operational care facility or they have one in the development pipeline.

- The ratio between independent and assisted living units is 83% to 17%.
- The largest retirement village in the primary catchment area is Summerset down the Lane, which has 233 retirement village units. It is closely followed by Hilda Ross Retirement Village, which has 218 units.
- Approximately 2,005 retirement village units are distributed among fifteen retirement villages in the secondary catchment area.
 - \circ ~ The breakdown between independent and assisted living units reflects a 90% to 10% ratio.
 - The largest retirement village in this secondary area is Linda Jones Retirement Village, offering 341 retirement village units, followed by Summerset Rototuna with 244 units.

9.2 Vacancy Indicators and Wait Times – March 2023

- Te Awa Lifecare Village had a villa waitlist with an average wait time of 12-18 months.
- Lauriston Park had waitlists for townhouses and villas, with an estimated wait time of 6-12 months.
- Metlifecare St Andrew's had one available villa.
- Bupa's St Kilda Retirement Village had two villas available.
- Highfield Country Estate in Te Awamutu reported no villa availability, with a waitlist operating and an approximate wait time of 18 months to two years for a villa.
- No villas were available in retirement villages further afield, such as Rangiura in Putāruru and Radius Matamata Country Lodge in Matamata.

9.3 Building Consents Data and Unit Typology Characteristics

9.3.1 Building Consents - New Retirement Village Units

The following tables and graphs illustrate the new retirement village unit data provided by Stats NZ for the Waikato District, Hamilton City and the Waipa District.

	-	-			
Year-end Jan.	Number	Value	Floor area	Value/BC	Floor Area/BC
2014	24	\$3,200,000	2,574	\$133,333	107
2015	15	\$2,800,000	2,052	\$186,667	137
2016	10	\$2,256,600	1,448	\$225,660	145
2017	2	\$500,000	235	\$250,000	118
2018	3	\$670,000	296	\$223,333	99
2019	19	\$3,123,017	1,485	\$164,369	78
2020	40	\$11,478,285	4,914	\$286,957	123
2021	54	\$29,356,500	11,679	\$543,639	216
2022	51	\$24,855,800	9,414	\$487,369	185
2023	46	\$24,614,545	9,440	\$535,099	205
2024	36	\$23,457,000	8,084	\$651,583	225

Table 12: New Retirement Village Units – Building Consents – Waikato District

Source: WEBSTER; Stats NZ

In the Waikato District TA, the number of new retirement village units provided with a building consent during the year-end of January 2023 was 46, with a total value of \$24.6 million, an average value of \$535,000 and an average floor area of 205 sqm.

Graph 4: Retirement Village Building Consents - New Unit Numbers - Waikato District



Source: WEBSTER; Stats NZ

Table 13: New Retirement Village Units – Building Consents – Hamilton City

	in vinage onits	building consents	nannicon city			
Year-end Jan.	Number	Value	Floor area	Value/BC	Floor Area/BC	
2014	11	\$2,020,660	1,442	\$183,696	131	
2015	121	\$19,161,056	11,637	\$158,356	96	
2016	50	\$4,977,700	2,538	\$99,554	51	
2017	30	\$3,636,300	3,571	\$121,210	119	
2018	51	\$12,438,620	5,818	\$243,895	114	
2019	215	\$41,149,147	22,551	\$191,391	105	
2020	198	\$70,063,849	26,443	\$353,858	134	
2021	117	\$35,925,732	17,678	\$307,058	151	
2022	47	\$8,247,108	5,047	\$175,470	107	
2023	95	\$37,136,200	11,260	\$390,907	119	
2024	14	\$5,002,000	1,485	\$357,286	106	

Source: WEBSTER; Stats NZ

In the Hamilton City TA, the number of new retirement village units provided with a building consent during the year-end of January 2023 was 95, with a total value of \$37 million, an average value of \$391,000 and an average floor area of 119 sqm.

250





Source: WEBSTER; Stats NZ

Table 14: New Retirement Village Units – Building Consents – Waipa District

Year-end Jan.	Number	Value	Floor area	Value/BC	Floor Area/BC
2014	62	\$11,507,204	8,597	\$185,600	139
2015	117	\$19,892,000	13,228	\$170,017	113
2016	38	\$7,942,400	5,436	\$209,011	143
2017	25	\$6,326,669	2,659	\$253,067	106
2018	69	\$15,122,405	8,490	\$219,165	123
2019	54	\$17,396,000	6,365	\$322,148	118
2020	68	\$20,575,000	7,164	\$302,574	105
2021	59	\$17,470,000	6,271	\$296,102	106
2022	58	\$21,804,000	6,072	\$375,931	105
2023	312	\$95,021,866	35,295	\$304,557	113
2024	94	\$33,892,000	11,049	\$360,553	118

Source: WEBSTER; Stats NZ

In the Waipa District TA, the number of new retirement village units provided with a building consent during the year-end of January 2023 was 312, with a total value of \$95 million, an average value of \$305,000 and an average floor area of 113 sqm.



Graph 6: Retirement Village Building Consents - New Unit Numbers - Waipa District \$500,000

North Island

New Zealand

Source: WEBSTER

9.3.2 **Retirement Village Unit – Typology Distribution**

The subsequent tables provide an overview of the distribution of retirement village units across all retirement villages and those established in 2000, covering the primary and secondary catchment areas, the Waikato Region, the North Island, and the entirety of New Zealand.

Retirement Village Unit Typology Distribution – All Retirement Villages Villas Apartments Serviced Apartments Townhous 500 (50%) 42 (4%) 133 (13%) 223 (22%) Primary Catchment Area 313 (16%) 209 (10%) 106 (5%) Secondary Catchment Area 1.191 (59%) 355 (12%) **Total Catchment Area** 1,691 (56%) 342 (11%) 329 (11%) 475 (10%) 444 (10%) Waikato Region 2.841 (62%) 329 (7%)

Table 15: Retirement Villages: Unit Typology Distribution - Total

Among all retirement villages in the primary catchment area, villas comprise 50% of dwellings, independent apartments comprise 4%, serviced apartments comprise 13%, townhouses account for 22%, and units or cottages constitute 11%. Notably, the primary catchment area exhibits an above-average proportion of townhouses and a notably low proportion of independent apartments.

9,509 (27%)

10,625 (24%)

5,245 (15%)

6,860 (16%)

- In the secondary catchment area, 59% of units are villas, 16% are independent apartments, 10% are serviced apartments, 5% are townhouses, and 9% are units or cottages.
- Contrasted with these figures, the proportion of villas in the Waikato Region is 62%, with independent apartments making up 10%, serviced apartments 10%, townhouses 7%, and units or cottages 11%.

Table 16: Retirement Villages: Unit Typology Distribution - Opened Since 2000

16,054 (46%)

20,702 (47%)

Retirement Village Unit Typology Distribution – Opened Since 2000									
	Villas	Apartments	Serviced Apartments	Townhouses	Units/Cottages				
Primary Catchment Area	382 (46%)	5 (1%)	133 (16%)	223 (27%)	90 (11%)				
Secondary Catchment Area	843 (63%)	239 (18%)	149 (11%)	106 (8%)	0 (0%)				
Total Catchment Area	1,225 (41%)	244 (8%)	282 (9%)	329 (11%)	90 (3%)				
Waikato Region	2,274 (66%)	358 (10%)	361 (10%)	329 (10%)	118 (3%)				
North Island	9,711 (43%)	6,961 (31%)	3,353 (15%)	1,893 (8%)	658 (3%)				
New Zealand	13,334 (46%)	7,793 (27%)	4,413 (15%)	2,707 (9%)	767 (3%)				
Source: WEBSTER									

350

Units/Cottag

112 (11%)

186 (9%)

298 (10%)

520 (11%)

1,967 (6%)

2,306 (5%)

1,974 (6%)

3,631 (8%)

- Among the retirement villages established since 2000 in the primary catchment area, villas constitute 46% of dwellings, independent apartments make up 1%, serviced apartments comprise 16%, townhouses account for 27%, and units or cottages represent 11%.
- In the secondary catchment area, retirement villages that have opened since 2000 have 63% villas, 18% independent apartments, 11% serviced apartments, 8% townhouses, and no units or cottages.
- Contrasting these figures, in retirement villages within the Waikato Region established in 2000, 66% are villas, 10% independent apartments, 10% serviced apartments, 10% townhouses, and 3% units or cottages.

9.4 Retirement Villages - Development Pipeline Details

The following section details the development pipeline within the retirement village sector (this does not include the care facility development pipeline) located within the primary and secondary catchment areas; this excludes the development pipeline located at the Tamahere Country Club.

Table 17: Retirement Village Development Pipeline

Name	Owner	Stage	Villas	Apartments	Townhouses/ Cottages/Units	Total
	Primary Catch	ment Area				
Cascades Retirement Village	Arvida	Early planning	0	50	0	50
Atawhai Assisi Home & RV	Tamahere Eventide Home Trust	Commenced	45	8	0	53
Patrick Hogan Retirement Village	Ryman	Commenced	0	60*	129	189
Te Awa Lifecare Village	Hurst Lifecare and Te Awa Lifecare	Commenced	107	0	64**	171
Broadwater Retirement Village (new)	Qestral Corporation	Commenced	235	19	0	254
Total			387	137	193	717
	Secondary Cato	hment Area				
Cambridge Resthaven	Cambridge Resthaven	Commenced	0	77*	0	77
Summerset Cambridge RV	Summerset	Commenced	215***	60*	0	275
St Kilda Retirement Village	Вира	Commenced	0	20*	0	20
Awatere Village	Oceania	Commenced	0	71	0	71
Karaka Pines – Rototuna	Karaka Pines Group	Commenced	36	64	0	100
The Henley Retirement Village (new)	Arvida	In Planning	130	20*	0	150
Edin Rotokauri (new)	Green Seed Consultants, MADE etc	In Planning	150	0	0	150
Total			531	312	0	843
Source: WEBSTER	* Serviced Apartments ** ca	are and serviced cottages	5	*** mix of villa	as and cottages	

Disclaimer: WEBSTER acknowledges the possibility of an additional development pipeline that has yet to be identified and documented in our databases. While we strive to document all development pipeline comprehensively, it is not always feasible to be fully aware of every land transaction and development plan.

- We have found evidence of a retirement village development pipeline within the primary catchment area, which includes an estimated 387 villas, 137 independent and serviced apartments, 193 townhouses, cottages, and units, which is a total of 717 retirement village units.
 - \circ $\;$ This development pipeline is located at four operating and one new retirement village.
- We have found evidence of a retirement village development pipeline within the secondary catchment area, which includes an estimated 531 villas, 312 independent and serviced apartments, zero townhouses, cottages, and units, which is a total of 843 retirement village units.
 - This development pipeline is located at five operating and two new retirement villages.

Ryman – Cambridge Retirement Village



10.0 RETIREMENT VILLAGE UNITS - NET LATENT DEMAND (NLD) FORECAST MODEL

10.1 Introduction to the Net Latent Demand Model

The Net Latent Demand (NLD) model finds practical application in assessing risk for operators of retirement villages. Acting as a risk assessment tool, this model offers projections on the potential demand expected from a specific catchment area over a forecast period. By considering existing supply and planned development, the NLD model evaluates the market's capacity to absorb current offerings and predicts potential demand levels post-absorption. Through this comprehensive analysis, the NLD model aids in gauging the future demand scale for retirement village units, thereby assisting in evaluating associated development risks in the area.

To elucidate this concept, envision a scenario where a retirement village aims to derive around 40% of its unit sales from residents within the primary and secondary catchment areas (as exemplified by the Tamahere Country Club). In such instances, the NLD model provides valuable insights into the risks involved in achieving this targeted percentage. The model assesses the feasibility and obstacles in realising the desired sales distribution within the specified catchment areas by examining variables such as market demand, competition, and demographic shifts.

The comprehensive forecast model outcomes are detailed in Appendix B, while the timeline illustrating the forecasted demand is presented on the subsequent page.

10.2 Retirement Village Units - Net Latent Demand Forecast Model – Summary Results

Table 18: Retirement Village Units - Net Latent Demand Forecast Model

	Primary and Secondary Catchment Areas	Waikato Region	Auckland Region	New Zealand
Sales Origin Percentage	40%	22%	23%	15%
Population – 70+ years				
Population – June 2024	23,780	65,340	168,024	626,240
Population – June 2048	44,240	113,550	329,280	1,088,200
Population Growth – 2024/2048	20,460	48,210	161,256	461,960
Supply and Development Pipeline – March 2024				
Current Supply	3,005	4,609	13,641	44,124
Development Pipeline*	1,560	3,532	8,301	26,295
Estimated Retirement Village Unit Demand in 2048	6,580	11,773	36,014	109,340
Growth in RV Units Demand 2024/2048	3,575	7,164	22,373	65,216
Net Latent Demand 2024/2048	2,015	3,632	14,072	38,921
Net Latent Demand 2024/2048 per annum	84	151	586	1,622

Source: WEBSTER

*WEBSTER acknowledges the possibility of an additional development pipeline that has yet to be identified and documented in our databases. While we strive to document all development pipeline comprehensively, it is not always feasible to be fully aware of every land transaction and development plan. Note: See the full forecast model located within Appendix B

Note: Estimate numbers used in the model for villages with no specifications are 150 for new villages and 30 for expansions.

- Primary and Secondary Catchment Areas:
 - Within the primary and secondary catchment areas, the number of residents aged 70+ years is forecast to increase from 23,780 in 2024 to 44,240 in 2048, a growth of 20,460.
 - Presently, 3,005 retirement village units are available, with an additional 1,560 units in the development pipeline, exclusive of any plans for expansion at Tamahere Country Club. The net latent demand model results indicate that by 2043, 6,580 retirement village units will be in demand in the area if the 70+ penetration rate increases from 15.7% to 18.5% over the forecast period.
 - Upon subtracting the current supply and currently identified development pipeline from this total, the net latent demand is calculated at 2,015 units, averaging 84 units annually over the forecast period.
 - The timing of the demand and delivery estimates for the current development pipeline is illustrated in graph seven and table 30 in Appendix B. Analysis suggests that there will be sufficient demand generated within the primary and secondary catchment areas to absorb between 43% and 51% of the newly built retirement village units 2024 to 2029. Approximately 40% of the units at Tamahere Country Club are estimated to be occupied by residents originating from the primary and secondary catchment areas.

- Waikato Region:
 - Within the Waikato Region, the number of residents aged 70+ years is forecast to increase from 65,340 in 2024 to 113,550 in 2048, a growth of 48,210.
 - Presently, 4,609 retirement village units are available, with an additional 3,532 units in the development pipeline, exclusive of any plans for expansion at Tamahere Country Club. The net latent demand model results indicate that by 2043, 11,773 retirement village units will be in demand in the area if the 70+ penetration rate increases from 8.8% to 13.0% over the forecast period.
 - Upon subtracting the current supply and currently identified development pipeline from this total, the net latent demand is calculated at 3,632 units, averaging 151 units annually over the forecast period.
 - The timing of the demand and delivery estimates for the current development pipeline is illustrated in graph eight and table 31 in Appendix B. Analysis suggests that sufficient demand will be generated within the Waikato Region to absorb between 48% and 61% of the newly built retirement village units in 2024 to 2029. Therefore, it is estimated that over the next seven years, 39% to 52% of the demand for the retirement village units developed in the Waikato Region will need to originate from outside the Waikato Region. Most of this demand is forecasted to originate from the Auckland Region.
- Auckland Region:
 - Within the Auckland Region, the number of residents aged 70+ years is forecast to increase from 168,024 in 2024 to 329,280 in 2048, a growth of 161,256.
 - Presently, 13,641 retirement village units are available, with an additional 8,301 units in the development pipeline. The net latent demand model results indicate that by 2043, 36,014 retirement village units will be in demand in the area if the 70+ penetration rate increases from 10.0% to 13.5% over the forecast period.
 - Upon subtracting the current supply and currently identified development pipeline from this total, the net latent demand is calculated at 14,072 units, averaging 586 units annually over the forecast period.
 - The timing of the demand and delivery estimates for the current development pipeline is illustrated in graph nine and table 32 in Appendix B. We have extended the delivery timeline to ten years for the currently identified development pipeline in the Auckland Region. This extension is due to the typical staging of retirement village developments, where subsequent stages remain undelivered until demand has been established within the preceding stage. Consequently, we anticipate a longer delivery period for many of the retirement village units, of which a majority are apartments, within the current Auckland Region development pipeline to reach the market compared to those in the development pipeline for the total catchment area or the Waikato Region.
- New Zealand:
 - The findings for New Zealand as a whole suggest the possibility of an oversupply over the upcoming eight years (see table 33 in Appendix B). However, it's more probable that not all of the presently identified development pipeline will reach the market or the delivery of retirement village units will be postponed to a later stage in the forecast period.

A	Total Catchment Area	Waikato Region	Auckland Region	New Zealand
Assumptions		(rest of)		(rest of)
Sales Origin Percentage*	40%	22%	23%	15%**
Unit Example – 56	22	12	13	8
	Total Catchment Area	Waikato Region	Auckland Region	New Zealand
Unit Occupancy Percentage	98%	98%	98%	98%
Residents per Unit***	1.27	1.28	1.26	1.27
Occupied RV Units/Dwellings – 2024	2,945	4,517	13,368	43,242
Est. RV Residents – 2024	3,740	5,782	16,844	54,917
Penetration Rate – 2024	15.7%	8.8%	10.0%	8.8%
Penetration Rates Applied 2024 -2048 - June	16.0% - 18.5%	9.3% - 13.0%	10.5% - 13.5%	9.0% - 12.5%
Identified Development Pipeline – March 2024	1,560	3,532	8,301	26,295
Years to Deliver Identified Development Pipeline	Six years	Seven years	Ten years	Eight years
Source: WEBSTER				

Table 19: Retirement Village Demand Forecast Model Variables

* Estimated % of potential units purchased by residents originating from these areas

** Demand originating from outside the Waikato and Auckland Regions

*** See Appendix A for retirement village residents per unit calculations

Key Assumptions:

Population Forecasts Development Pipeline Unit Replacement Occupancy Rate SNZ - median scenario Delivered to market over 5.5 years 5% of 2024 supply over 24 years 98%

10.3 **Retirement Village Unit Demand and Supply Timeline Indicators**

Primary and Secondary Catchment Areas: The graph below illustrates the projected demand for retirement village units originating from residents within primary and secondary catchment areas from 2024 to 2048. Based on the model's estimation that 40% of the demand for such units will originate from these catchment areas, it suggests that the ongoing retirement village development projects will reach complete market absorption around 2028/2029.



Graph 7: Primary and Secondary Catchment Areas - Retirement Village Unit Demand Timeline Indicator

Waikato Region: The graph below illustrates the projected demand for retirement village units originating from residents within the Waikato Region from 2024 to 2048. If all retirement village demand had to originate from within the Waikato Region, the currently identified development pipeline would take until around 2035 to be absorbed; however, if 60% of demand were to originate from within the Region, the development pipeline would be absorbed circa 2030/2031.



Graph 8: Waikato Region - Retirement Village Unit Demand Timeline Indicator

Source: WEBSTER

Auckland Region: The graph below illustrates the projected demand for retirement village units originating from residents within the Auckland Region from 2024 to 2048. If all retirement village demand had to originate from within the Auckland Region, the currently identified development pipeline would take until around 2033 to be absorbed.



Graph 9: Auckland Region - Retirement Village Unit Demand Timeline Indicator

New Zealand: The graph below illustrates the projected demand for retirement village units originating from New Zealand residents from 2024 to 2048. The currently identified development pipeline would take until around 2033 to be absorbed.



Graph 10: New Zealand - Retirement Village Unit Demand Timeline Indicator

Source: WEBSTER

11.0 CARE FACILITIES

11.1 Care Facilities – Overview

Like numerous other developed countries, New Zealand faces the challenge of a rapidly aging populace. Stats NZ medium scenario projections indicate a significant surge in the population aged 85 years and above, soaring from 99,300 in 2024 to 314,900 by 2054—an escalation of 215,600 individuals, marking a growth rate of 217%. Consequently, there will be a substantial upsurge in the requirement for care beds/suites within care facilities. Furthermore, an anticipated rise in demand for higher dependency services, such as hospital and dementia care, is expected.





• Over the last two decades, the growing demand for care services has primarily been absorbed in the increasing deployment of home support services; however, this is not sustainable. New Zealand has rising dependency levels, as indicated by the change in rest home beds to hospital and dementia over the past ten years.

- While there has been a steady increase in the utilisation of hospital and dementia beds/suites, this has been offset by a decline in rest home utilisation.
- Care suites are being introduced and funded via ORA, RAD, or PAC structures. These care suites offer rest home & hospital-level care and dementia-level care.

11.2 Care Facilities - Forecast Demand Indicators

- This section assesses the current (baseline) demand; it forecasts the future demand for care beds/suites in the primary and secondary catchment areas and the Waikato Region.
- The drivers of care demand are impacted by a range of variables such as the growth and aging of the population, the changing independent life expectancy of older people, availability of alternative health services (e.g. home support), older people's access to and preferences for alternative arrangements (such as informal care by family and friends), and economic influences such as funding and government policies on access to services, relative prices of different services and the income and assets of older people.
- WEBSTER does not intend to predict the effects on care bed/suite demand of all the variables mentioned earlier; instead, the projections are designed to offer an understanding of the direction and magnitude of future changes, aiding in strategic business decision-making.
 - Population forecasts (median scenario), a slightly adjusted penetration rate, a 5% variable accounting for replacing aging existing beds and a 2% vacancy adjustment.

11.3 Care Facilities - Supply

Below is a table detailing operational care facilities and their estimated bed typology mix. Presently, the primary catchment area hosts around 1,054 care beds and suites across 14 facilities, while the secondary catchment area houses an estimated 995 care beds/suites within 15 facilities.

Table 20: Care Facility – Supply Details

Name	Owner	Resthome	Hospital	Dementia	Care Suites	Other*	TOTAL	Est. Building Age	Part of RV
		Primary	Catchment	Area					
Radius St Joans	Radius Care	30	54	0	0	0	84	1918	No
Eastcare Residential Home	Paul & Denise Webster	15	0	32	0	0	47		No
Eventhorpe Rest Home & Hospital	Вира	35	56	0	0	0	91		No
Atawhai Assisi Home and Hospital	Tamahere - Trust	39	46	0	0	0	85	1976	Yes
Roselea	YHKT Ltd	0	0	30	0	0	30	1980	No
Radius Windsor Court	Radius Care	43	13	20	0	0	76	1995	Yes
Wilson Carlile House	Metlifecare	30	29	0	0	0	59	1995	Yes
Rossendale Dementia Care Home & Hospital	Bupa	17	34	0	0	33	84	2001	No
Tamahere Eventide Home & Village	Methodist Church	40	24	42	0	0	106	2001	Yes
Cascades	Arvida	42	32	0	0	0	74	2005	Yes
Hilda Ross Retirement Village	Ryman	42	69	40	0	0	151	2006	Yes
Te Awa Care	Hurst Lifecare	26	6	12	34**	0	78	2010	Yes
Summerset Down the Lane	Summerset	24	25	0	0	0	49	2018	Yes
Steele Park Home	Sound Care Group	19	21	0	0	0	40	2022	No
Primary Catchment Area - Tota	al	402	409	176	34	33	1,054		
Name	Owner	Resthome	Hospital	Dementia	Care Suites	Other*	TOTAL	Est. Building Age	Part of RV
		Secondar	y Catchmen	t Area					
Metlifecare St Andrew's	Metlifecare	12	12	0	0	0	24	1975	Yes
Resthaven-on-Burns Street	Cambridge Resthaven	18	18	18	0	0	54	1980	Yes
Awatere	Oceania	0	0	0	90	0	90	1991	Yes
Ultimate Care Cambridge	Ultimate Care Group	12	19	16	0	0	47	1999	No
Radius Glaisdale	Radius Care	33	27	20	0	0	80	2010	No
St Andrews Care Home	Bupa	10	30	0	0	0	40	2010	Yes
Brylyn Residential Care	Prasad Family	22	11	0	0	0	33	2014	No
St Kilda Care Home	Вира	0	0	0	80	0	80	2015	Yes
Linda Jones Retirement	Ryman	40	40	36	0	0	116	2018	Yes
Summerset Rototuna	Summerset	20	16	0	27	0	63	2018	Yes
Foxbridge Care Home	Bupa	0	0	0	85	0	85	2019	Yes
Cambridge Life	Sound Care Group	32	24	0	0	0	56		No
Cambridge Resthaven in Vogel Street	Cambridge Resthaven	30	28	10	0	0	68		Yes
Lauriston Park Retirement									
village	Arvida	0	0	0	63	0	63		Yes
Radius Kensington	Arvida Radius Care	0 22	0 37	0 37	63 0	0 0	63 96		Yes No

Source: WEBSTER

* includes "other" beds such as psychogeriatric

** Resthome and hospital-level care

11.4 **Care Facilities - Development Pipeline Indicators**

The table below provides an overview of the care facility development pipeline identified by WEBSTER in both the primary and secondary catchment areas. We have identified a development pipeline that includes 269 care beds and suites in the primary catchment area and an estimated 116 in the secondary catchment area. However, it is essential to acknowledge that the indicated numbers of care beds and suites are approximate, given that much of the development is in its initial planning phases. This data excludes the development pipeline at the Tamahere Country Club.

Table 21: Care	Facility –	Development	Pipeline
----------------	------------	-------------	----------

Name	Owner	Care Beds			Care Suites		Other	Total
		Rest Home	Hospital	Dementia	Rest Home & Hospital	Dementia		
Radius Windsor Court Rest	Radius Care	20*	0	0	0	0	0	20
Cascades	Arvida	0	0	0	30	0	0	30
Te Awa Care	Hurst Lifecare	0	0	0	40	18	0	58
Broadwater Retirement Village	Qestral Corporation	0	0	0	61	20	0	81
Patrick Hogan RV**	Ryman	20	20	40	0	0	0	80**
Primary Catchment Area - Tota	1	40	20	40	131	38	0	269
Metlifecare St Andrew's	Metlifecare	0	0	0	20*	0	0	20*
Summerset Cambridge	Summerset	9	0	0	27	20	0	56
Te Awa Lakes	Perry Developments Ltd	0	0	0	40*	0	0	40*
Secondary Catchment Area - T	otal	9	0	0	60*	20	0	116*
Source: WEBSTER *Estimate	ed **	may include care	suites offered	via an RAD				

** may include care suites offered via an RAD

Disclaimer: WEBSTER acknowledges the possibility of an additional development pipeline that has yet to be identified and documented in our databases. While we strive to document all development pipeline comprehensively, it is not always feasible to be fully aware of every land transaction and development plan.

Map 10: Care Facilities – Operating and Development Pipeline



Source: WEBSTER

11.5 Care Beds & Suites* - Forecast Demand Indicators

The table below offers a forecast indicator for the demand for care beds and suites. This indicator is based on Stats NZ median scenario population projections for the 85+ age group, a projected penetration rate for the population growth between 2024 and 2048 in the 85+ age category, a 5% variable accounting for replacing aging existing beds and a 2% vacancy adjustment.

Table 22:	Care Bed	/Suite De	mand Fore	cast Indicat	ors 2024/2048
10010 22.	care bea	June De		cust maicut	013 2024/2040

Demand Drivers/Model Variables/Outcomes	Primary Catchment Area	Secondary Catchment Area	Total Catchment Area	Waikato Region	Auckland Region	North Island
Population Counts – 85+ years						
June 2024 Estimate	1,707	2,381	4,088	9,704	28,082	73,984
June 2048 Forecast	3,825	6,350	10,175	27,450	85,500	207,370
Change 2024/2048	2,118	3,969	6,087	17,746	57,418	133,386
Supply and Penetration Rates - 2024						
Number of Care Beds and Suites – 2024*	1,054	995	2,049	3,710	10,646	27,916
Penetration rates – 85+ years population 2024	62%	42%	50%	38%	38%	38%
Over or Undersupply Adjustment Indicator – 38% PR	-406	-90	-496	0	0	0
Growth Drivers 2024 - 2048						
Penetration rates applied to population growth 2024/2048	40%	40%	40%	40%	40%	40%
Demand generated by population growth 2024/2048	847	1,588	2,435	7,098	22,967	53,354
Replacement of aged beds/suites – 5% of 2024 supply	32	45	78	186	532	1,396
Vacancy Adjustment – 2%	30	50	80	216	672	1,625
Total Additional Care Beds/Suites 2024/2048	909	1,683	2,593	7,500	24,171	56,375
Average Additional Beds/Suites 2024/2048	38	70	108	313	1,007	2,349
Development Pipeline Indicators - 2024	269	116	385	861	2,476	5.462

Source: WEBSTER; STATS NZ * Includes care suites, rest home care, medical, dementia, geriatric, physical, psychogeriatric, hospital (aged care)

Assumptions:

- Our analysis is based on STATS NZ's medium scenario population projections for individuals aged 85 and older.
- A 2% vacancy allowance is factored into our calculations.
- A 5% replacement variable is applied to the existing supply between 2024 and 2048.

Care Bed/Suites Demand Forecast Indicators 2024/2048

- There are currently sufficient care beds and suites located in the primary catchment area to accommodate 62% of the population aged 85+ years living in the area; the result is 42% for the secondary catchment area, resulting in a 50% 85+ years penetration rate for the total catchment area, which remains higher than the 38% recorded for the Waikato and Auckland Regions and the North Island.
 - The result indicates that the primary catchment area is a significant supplier of care beds and suites for the Waikato Region.
- Total Catchment Area: If 40% of the population growth within the 85+ age group from 2024 to 2048 necessitates a care bed or suite, it would require 2,435 care beds and suites. Additionally, 78 care beds and suites may be needed to replace aging product, and 80 more are necessary to maintain a 2% vacancy rate. Consequently, the overall demand for care beds and suites is 2,593, derived from these three factors, averaging 108 per year throughout the forecast period.
 - With an estimated potential development pipeline of 385 more, it suggests that the total catchment area is expected to meet its average demand for around four years over the forecast period.
- Waikato Region: If 40% of the population growth within the 85+ age group from 2024 to 2048 necessitates a care bed or suite, it would require 7,098 care beds and suites. Additionally, 186 care beds and suites may be needed to replace aging product, and 216 more are necessary to maintain a 2% vacancy rate. Consequently, the overall demand for care beds and suites is 7,500, derived from these three factors, averaging 313 per year throughout the forecast period.
 - With an estimated potential development pipeline of 861 more, it suggests that the total catchment area is expected to meet its average demand for around three years over the forecast period.

Note: We have employed an 85+ penetration rate of 40% for the projected population growth between 2024 and 2048. This decision stems from the belief that if the industry can furnish enough care beds and suites to achieve an 85+ penetration rate of 40%, it will alleviate considerable strain on hospitals and other healthcare providers. This relief will occur as the care facility industry expands its capacity and medical technology advances, encompassing equipment and human resources.

Graph 12: Demand Forecast Indicators 2024 – 2048 – Primary and Secondary Catchment Areas



4,500

12.000

Source: WEBSTER

12,000

In graph 12, we have applied an 85+ years penetration rate of 40% to the medium scenario population forecasts provided by Stats NZ from 2024 to 2048, along with the current estimated supply of care beds and suites (excluding serviced apartments in retirement villages certified for rest home-level care) and the development pipeline that WEBSTER has identified for the area.

The findings suggest that maintaining the primary and secondary catchment areas as significant providers of care beds and suites for the broader Waikato Region is imperative until 2033. Failure to do so could lead to a potential oversupply.



Graph 13: Demand Forecast Indicators 2024 – 2048 – Waikato Region

Source. WEBSTER

In graph 13, we have applied an 85+ years penetration rate of 40% to the medium scenario population forecasts provided by Stats NZ from 2024 to 2048, along with the current estimated supply of care beds and suites (excluding serviced apartments in retirement villages certified for rest home-level care) and the development pipeline that WEBSTER has identified for the area.

The findings suggest that the Waikato Region is expected to possess sufficient care beds and suites up to approximately 2028. Beyond this point, there is a projected surge in demand, with numbers escalating from 4,608 in 2028 to 10,980, with an estimated additional 6,372 care beds and suites needed.

11.6 Aged Residential Care (ARC) Demand Planner 2022 – Waikato District Health Board (DHB)

The demand planner provides information about trends and how many ARC beds are used in each Territorial Authority (TA) and District Health Board (DHB); this helps Te Whatu Ora, ARC providers, and others in the health sector understand the capacity, mix, and location of beds needed. The ARC (aged residential care) Demand Planner 2022 indicates the average resident counts for the Waikato DHB.

Туре	2023 – 2027				2031 – 2042			Change 2023/2042		Typology Distribution	
	2023/2024	2024/2025	2025/2026	2026/2027	2031/2032	2036/2037	2041/2042	Count	%	2023/2024	2041/2042
Dementia	479	499	519	540	657	785	910	431	90%	15%	14%
Hospital	1,047	1,089	1,132	1,177	1,451	1,773	2,093	1,046	100%	33%	33%
Psychogeriatric	76	79	82	85	101	117	134	58	76%	2%	2%
Resthome	1,575	1,638	1,703	1,772	2,209	2,741	3,278	1,703	108%	50%	51%
TOTAL	3,178	3,303	3,436	3,575	4,418	5,417	6,415	3,237	102%	100%	100%

Table 23: ARC Demand Planner 2022 - All funded - Average No. of Residents – Waikato DHB

Source: WEBSTER; based on data supplied via the ARC Demand Planner 2022; Te Whatu Ora/Health New Zealand; developed by EY

The Aged Residential Care (ARC) model projects a rise in ARC residents within the Waikato DHB, increasing from 3,178 in 2023/2024 to 6,415 by 2041/2042. Concurrently, the Stats NZ population predictions (SA2 level projections added up to cover the Waikato DHB geographical area) for the demographic aged 85 and above are anticipated to increase from 8,280 in 2023 to 19,353 in 2042. This shift would consequently alter the care bed/suite penetration rate for individuals aged 85 and above, decreasing it from 38% to 33% over this forecast period.

11.7 interRAI – Data Visualisation – Waikato DHB

This interactive visualisation tool gives you access to anonymised, aggregated interRAI assessment data. The data presented relates to three interRAI assessment types: Contact (CA), Home Care (HC) and Long-Term Care Facilities (LTCF) assessments. The following details are for LTCF.



Graph 14: Long-Term Care Facilities Assessments – 2018 to 2023 – Waikato DHB

Source: WEBSTER; based on Stats NZ Population Estimates and https://www.interrai.co.nz/data-research-and-reporting/data-visualisation-2

The graph above illustrates the number of LTCF assessments undertaken in the Waikato DHB from the year-end July 2018 to the year-end July 2023. The number of assessments has stayed relatively stable; however, as a percentage of the population aged 85+ years, they have fallen from 77% in 2018 to 69% in 2023.

Other - year-end July 2023

- The median age for LTCF assessments in the year ending July 2023 was 85 years.
- Of those aged 85+ years who undertook an LTCF assessment, 18.4% were assessed as independent, 16.0% as supervision required, 19.6% as limited assistance, 10.0% as extensive assistance, 9.2% as maximal assistance, 22.3% as very dependent and 4.4% as total dependence.

12.0 RETIREMENT VILLAGE AND CARE SUITE PRODUCT DIFFERENTIATION

The following tables summarise the price point indicators for a range of retirement village product within the Waikato Region.

Table 24: Villas - Price Point Indicators

	Villas: T	wo-Bedroom	ıs	Villas: Three-Bedrooms			
Name	Price Indicator	sqm*	\$/sqm*	Price Indicator	sqm*	\$/sqm*	
Tamahere Country Club	\$955,000 - \$2,100,000	150 - 251	\$6,367 - \$8,367	\$1,450,000 - \$2,000,000+	220 – 288	\$6,591 - \$6,944	
Summerset Cambridge	\$720,000 - \$830,000+	72 – 111	\$7,238 - \$10,000	\$930,000 - \$1,050,000	121 – 122	\$7,686 - \$8,607	
Patrick Hogan Retirement Village	\$775,000 - \$1,045,000	127 - 166	\$6,102 – \$7,227	\$995,000 - \$1,195,000	156 – 198	\$6,035 - \$6,378	
Tamahere Eventide	\$575,000 - \$595,000	109	\$5,275 - \$5,458	\$725,000 - \$825,000	131 – 134	\$5,534 – \$6,157	
Te Awa Lifecare Village	\$1,200,000	160	\$7,500	\$1,300,000	250	\$5,200	
Summerset Rototuna	\$785,000 - \$940,000	103 - 122	\$7,621 - \$7,705	\$920,000+	119 - 122	\$7,731+	
Summerset down the Lane	\$595,000+	93 - 125	\$6,398	\$700,000+	129 - 135	\$5,426+	
Lauriston Park	\$585,000 - \$740,000	80+	\$7,313	\$800,000 - \$950,000	Up to 205	\$4,634	
Cambridge Resthaven	\$630,000+	110	\$5,727+	\$720,000+	133	\$5,414+	
Metlifecare St Andrew's	\$485,000	96	\$5,052	\$710,000			
St Kilda Retirement Village	\$556,000	101	\$5,505				
Cambridge Oaks Village	\$765,000 - \$795,000	99	\$7,727 - \$8,030	\$789,000 - \$879,000	112	\$7,045 - \$7,848	
Whai Mauri Ora Country Club	\$775,000 - \$1,045,000	127 – 166	\$6,102 - \$7,227	\$995,000 - \$1,195,000	156 – 198	\$6,035 - \$6,378	
Rangiura Retirement Village	\$410,000+	110	\$3,727+				
Radius Matamata Country Lodge	\$595,000+	130 - 140	\$4,577				
Highfield Country Estate	\$571,000+	102 - 137	\$5,598	Up to \$940,000	149 – 174	\$5 <i>,</i> 402	
Matamata Longlands	\$639,000 - \$680,000	108	\$5,917 - \$6,296	\$725,000 - \$825,000	123	\$5,894 - \$6,707	

*Price/sqm = includes the sqm of the garage unless otherwise stated

Table 25: Cottages - Price Point Indicators

		Cottages:	One-Bedro	om	Cottages: Two-Bedrooms			
Name	Owner	Price Indicator	sqm	\$/sqm	Price Indicator	sqm	\$/sqm	
Summerset Cambridge	Summerset				\$720,000	91	\$7,912	
Te Awa Lifecare Village	Te Awa Lifecare Trust	\$450,000 - \$1,000,000*	80 - 100	\$5,938 - \$10,000				
Summerset Rototuna	Summerset				\$685,000+	72 & 92**	\$9,514	
Cambridge Resthaven	Cambridge Resthaven	\$400,000	50	\$8,000	\$450,000	65	\$6,923	
* serviced cottages ** The 92 sqm cottage includes a single garage								

Table 26: Townhouses – Price Point Indicators

		Townhous	es: Two-Bedro	ooms	Townhouses: Three-Bedrooms			
Name	Owner	Price Indicator	sqm*	\$/sqm*	Price Indicator	sqm*	\$/sqm*	
Patrick Hogan Retirement		\$815,000 -		\$7,727 -	\$1,140,000 -		\$8,846 -	
Village	Ryman	\$850,000	103 - 110	\$7,913	\$1,150,000	128 - 130	\$8,906	
Summerset down the Lane	Summerset	\$595,000+	93 - 125	\$6,398+				
Lauriston Park	Arvida	\$585,000**	66	\$8,864				
Linda Jones RV		\$860,000 -	103+	\$8,350+				
*Price/sqm = includes the sqm of the garage, unless otherwise stated			** one-	bedroom plus stu	udy			

*Price/sqm = includes the sqm of the garage, unless otherwise stated

Table 27: Apartments - Independent & Serviced - Price Point Indicators

Name		Independent Apartme	Serviced Apartments		
	Studio	1 B/R	2 B/R	Studio	1 B/R
Tamahere Eventide	\$290,000	\$390,000 - \$420,000	\$450,000 - \$550,000		\$325,000 - \$380,000
Summerset Rototuna			\$940,000		
Foxbridge RV		\$415,000 - \$430,000	\$485,000 - \$695,000		
Summerset down the Lane		\$350,000+			
Linda Jones RV	\$450,000+	\$740,000+	\$800,000+		\$500,000 - \$525,000

Table 28: Care Beds and Care Suites (ORA and RAD and PAC) – Price Point Indicators

Name	Owner	PAC/day	ORA	RAD
Metlifecare St Andrew's	Metlifecare	\$20.50 - \$25.63		
Te Awa LifeCare	Hurst Lifecare	\$65 - \$75	\$250,000 - \$300,000	
Patrick Hogan Retirement Village (DP)	Ryman			\$350,000 - \$450,000*
Awatere	Oceania	\$85 - \$110	\$245,000 - \$375,000	
Foxbridge Care Home	Вира	\$50 - \$155	\$187,500+	
St Johns Wood	Oceania	\$32		
St Kilda Care Home	Вира	\$20 - \$45		
Summerset Rototuna	Summerset	\$45 - \$80	\$355,000 - \$430,000	
Willson Gardens Village	Moana House Trust Board	\$9 - \$10		

* Typically \$350,000 - \$450,000 - Disclosure Statement for Care Suites available via the Companies Office website.

APPENDIX A: MODEL ASSUMPTIONS & DEMAND DRIVERS

MODEL ASSUMPTIONS – RETIREMENT VILLAGES	Sales Origin	Current 70+ PR	2024 - 2048 PR	Residents/Unit
Primary & Secondary Catchment Areas	40%	15.7%	16.0% - 18.5%	1.27
Waikato Region	22%	8.8%	13.0%	1.28
Auckland Region	23%	10.0%	13.5%	1.26
New Zealand	15%	8.8%	12.0%	1.27
			2024/2040 00/-	Desidents/Ded
MODEL ASSUMPTIONS – CARE FACILITIES	Sales Origin	Current 85+ PR	2024/2048 PR's	Residents/Bed
MODEL ASSUMPTIONS – CARE FACILITIES Primary Catchment Area	Sales Origin 60%	62%	2024/2048 PR's 40%	1
MODEL ASSUMPTIONS – CARE FACILITIES Primary Catchment Area Secondary Catchment Area	Sales Origin 60% 25%	62% 46%	40% 40%	1 1
MODEL ASSUMPTIONS – CARE FACILITIES Primary Catchment Area Secondary Catchment Area Waikato Region	Sales Origin 60% 25% 10%	62% 46% 38%	2024/2048 PR's 40% 40% 40%	1 1 1

CATCHMENT AREAS AND THE DRIVERS

Catchment areas are where a village's customers are likely to be drawn; typically, we use a primary and secondary catchment area, with an occasional tertiary catchment area used when the location dictates. Drivers Include:

- 1. Population distribution and density
- 2. Retirement village unit distribution and density
- 3. Topographical features
- 4. Demand draws towards elements such as the coast, amenities, public transport, health care services, current communities, and population hubs (friends and family)
- 5. STATS NZ statistical area boundaries

SALES ORIGIN ESTIMATES

The percentage of units located at a retirement village or care facility that are forecasted to be sold to residents living in different geographical areas, such as primary and secondary catchment areas.

RETIREMENT VILLAGE PENETRATION RATES 70+ YEARS

The 70+ years penetration rate percentage is calculated by dividing the estimated number of residents living in retirement villages by the population aged 70+ years. Penetration rates are helpful as they help measure the extent to which the market is underserved or saturated and the appetite of different retirement village accommodation areas. They also provide an essential ingredient in forecast modelling, as they provide us with an indication of future demand levels.

 $Penetration Rate = \left(\frac{\text{Number of Retirees in Retirement Villages}}{\text{Total Number of Eligible Retirees}}\right) \times 100$

Impacts on the penetration rate (PR) include:

- Availability of suitable product
- Coastal and climate conditions
- Availability of alternative retiree housing options
- Affordability
- Local socio-economic conditions
- Cultural preferences

Driving an increase in penetration rates:

- Ageing population
- Changes in cultural traditions
- Greater acceptance of living in a village increased perceived value and benefit of retirement village living
- The newer, more suitable product being developed
- Providing access to a continuum of care
- Demand for security, social aspects, and an easier way of life that a retirement village can provide

NET LATENT DEMAND

Latent demand refers to the demand for a product or service that exists but is not currently being met by the market. This can be due to various reasons, such as a lack of awareness among consumers, barriers to accessing the product, or the product not yet existing in the market. In this report, we use the term net latent demand to represent latent demand less current supply and development pipeline. Net latent demand results can guide strategy, investment decisions, and market-entry considerations. If a business can identify a high net latent demand for a product or service, it may represent a significant market opportunity.

,	
DATA SOURCES	SOFTWARE
WEBSTER Databases	Esri ArcGIS
REINZ	Maptitude
Statistics New Zealand	Snaglt
Pacifecon	Microsoft
Eagle	
Ministry of Health	
CoreLogic	
LINZ	

OCCUPATION RIGHTS AGREEMENT

An Occupation Rights Agreement (ORA) is a legal contract commonly used in retirement villages. It grants the resident the right to occupy a unit in a retirement village for their lifetime (or until they decide or need to leave). The ORA outlines the terms and conditions under which a resident will live in the village.

Key elements and features of an Occupation Rights Agreement include:

- 1. Entry Payment: The initial amount the resident pays to secure their unit in the retirement village. It is typically a significant sum and is sometimes similar in size to purchasing a property outright, though the resident doesn't gain ownership of the unit.
- 2. Occupation Right: The ORA gives the resident the right to occupy their unit. This right lasts until the resident decides to leave, passes away, or needs to move to a higher care facility.
- 3. Exit Charges or Deferred Management Fee: These fees are deducted from the initial entry payment when the resident leaves the village. The exact amount or percentage can vary based on how long the resident has lived in the village and the terms set out in the ORA.
- 4. Maintenance Fees: Residents typically pay regular fees to cover the maintenance costs of the village, such as communal facilities and grounds.
- 5. Termination: The ORA will specify the circumstances under which the agreement can be terminated and what financial arrangements will apply upon termination.
- 6. Capital Gains and Losses: The ORA will determine who benefits from or bears the brunt of any capital gains or losses when the unit is eventually 'sold' or reoccupied by another resident. In some agreements, the village might take a percentage of any capital gain, or the resident might not share in capital gains at all.
- 7. Care Provisions: The ORA may also outline the availability of care services in the village and the circumstances under which a resident might be required to leave their unit and move to a higher care facility.

DEFERRED MANAGEMENT FEE (DMF)

A common financial arrangement in the retirement village industry. The DMF is a fee that residents of retirement villages pay when they leave the village. Instead of charging high ongoing monthly fees while a resident lives in the village, the operator defers a portion of the cost until the resident leaves, sells, or in the event of their passing. This fee is usually deducted from the resale value or exit payout of the resident's unit.

Here's a general overview of the Deferred Management Fee:

- 1. Calculation: The DMF is typically calculated as a percentage of the original purchase price, the sale price, or the current market value of the unit, depending on the terms of the Occupation Rights Agreement or equivalent contractual agreement. The percentage can vary but often ranges from 20% to 40% and is accrued over the first two to five years.
- 2. Purpose: The DMF helps retirement village operators cover the costs of providing and maintaining communal facilities, such as swimming pools, clubhouses, gardens and more. It also helps keep the ongoing fees (like monthly maintenance fees) lower for residents.

OCCUPANCY ADVANCE OR REFUNDABLE ACCOMMODATION DEPOSIT (RAD)

In the aged care sector, an "occupancy advance", often known as a "refundable accommodation deposit" (RAD), is a lump sum payment made by a resident (or their family) to an aged care facility when they first enter. This payment essentially secures the resident's place in the facility. It functions similarly to a deposit or bond.

Several important points about occupancy advances:

- 1. Refundable: The amount is usually refundable when the resident leaves the facility or passes away. However, some fees or amounts might be deducted based on the agreement made upon entry.
- 2. Interest: While the resident is in the facility, the care provider may use the funds, but any interest earned typically belongs to the facility unless otherwise stipulated in the agreement.
- 3. Regulations: In many countries, there are regulations in place governing how much can be charged, how the money can be used, and when it should be returned.
- 4. Alternatives: Instead of paying an occupancy advance, residents may have the option to pay daily fees or periodic payments that are typically non-refundable.

RETIREMENT VILLAGE RESIDENTS PER UNIT CALCULATIONS

Table 29: Retirement Village - Density Indicators

	Typology	Independent Living Units	Assisted Living Units	Total
	Density Indicator	1.30	1.10	1.27
Primary Catchment Area	No. of Units	831	169	1,000
	Potential Residents	1,080	186	1,266
	Density Indicator	1.30	1.10	1.28
Secondary Catchment Area	No. of Units	1,796	209	2,005
-	Potential Residents	2,335	230	2,565
	Density Indicator	1.30	1.10	1.27
Total Catchment Area	No. of Units	2,627	378	3,005
	Potential Residents	3,415	416	3,831
	Density Indicator	1.30	1.10	1.28
Waikato Region	No. of Units	4,165	444	4,609
	Potential Residents	5,415	488	5,903
	Density Indicator	1.30	1.10	1.26
Auckland Region	No. of Units	11,534	2,582	14,116
	Potential Residents	14,994	2,840	17,834
	Density Indicator	1.30	1.10	1.27
New Zealand	No. of Units	37,264	6,860	44,124
	Potential Residents	48,443	7,546	55,989

Source: WEBSTER

DEPRIVATION INDEX 2018

What is Included:

- People aged 18-64 receiving a means-tested benefit
- People living in households with equivalised income below an income threshold
- People with no access to the Internet at home
- People aged 18-64 without any qualifications
- People aged <65 living in a single-parent family
- People not living in their own home
- People living in a household with an equivalised bedroom occupancy threshold
- People aged 18-64 unemployed
- People living in dwellings that are constantly damp and/or always have mould greater than A4 size

ACRONYMS

- NLD = Net Latent Demand
- SA2 = Statistics Area Two
- PCA = Primary Catchment Area
- SCA = Secondary Catchment Area
- STATS NZ = Statistics New Zealand
- PR = Penetration Rate
- DS = Disclosure Statement
- DP = Development Pipeline
- AVM = Automatic Valuation Model

- RC = Resource Consent
- REINZ = Real Estate Institute of NZ
- TA = Territorial Authorities
- LBA = Local Board Area
- ARC = Aged Residential Care
- DMF = Deferred Management Fee
- RAD = Refundable Accommodation Deposit
- ORA = Occupation Rights Agreement

Table 30: Primary and Secondary Catchment Areas - Retirement Village Unit Net Latent Demand Model

	Primary & Secondary Catchment Areas									
Year - June	Popn. 70+ years	70+ Yrs. Penetration Rate	Base RV Unit Demand	Unit Replacement & Occupancy Rate Adjustments	Total RV Unit Demand	New RV Unit Demand per Annum	Development Pipeline Delivery Estimates	RV NLD - Units	% New Unit Demand of DP	
2024	23,780	16.0%	2,996	66	3,062	57	130	-73	44%	
2025	24,580	16.1%	3,117	69	3,185	123	286	-163	43%	
2026	25,380	16.2%	3,239	71	3,310	125	286	-161	44%	
2027	26,180	16.3%	3,363	74	3,436	126	286	-160	44%	
2028	26,980	16.4%	3,488	76	3,564	127	286	-159	45%	
2029	27,919	16.5%	3,632	79	3,711	147	286	-139	51%	
2030	28,858	16.6%	3,778	82	3,859	149		149		
2031	29,797	16.7%	3,925	85	4,010	150		150		
2032	30,736	16.8%	4,074	88	4,162	152		152		
2033	31,675	16.9%	4,224	91	4,315	153		153		
2034	32,486	17.0%	4,359	93	4,453	138		138		
2035	33,297	17.1%	4,495	96	4,591	139		139		
2036	34,108	17.3%	4,633	99	4,732	140		140		
2037	34,919	17.4%	4,772	102	4,873	142		142		
2038	35,730	17.5%	4,912	104	5,016	143		143		
2039	36,711	17.6%	5,077	108	5,184	168		168		
2040	37,692	17.7%	5,243	111	5,354	170		170		
2041	38,673	17.8%	5,411	114	5,526	172		172		
2042	39,654	17.9%	5,581	118	5,699	173		173		
2043	40,635	18.0%	5,753	121	5,874	175		175		
2044	41,356	18.1%	5,889	124	6,013	139		139		
2045	42,077	18.2%	6,026	127	6,153	140		140		
2046	42,798	18.3%	6,164	130	6,294	141		141		
2047	43,519	18.4%	6,304	132	6,436	142		142		
2048	44,240	18.5%	6,444	135	6,580	144		144		

Source: WEBSTER

Table 31: Waikato Region - Retirement Village Unit Net Latent Demand Model

	Waikato Region									
Year -	Popn. 70+ vears	70+ Yrs. Penetration Rate	Base RV Unit Demand	Unit Replacement & Occupancy Rate Adjustments	Total RV Unit Demand	New RV Unit Demand per Annum	Development Pipeline Delivery Estimates	RV NLD - Units	% New Unit Demand of DP	
2024	65.340	9.3%	4.747	105	4.852	243	505	-262	48%	
2025	67,770	9.5%	5.006	110	5,115	263	505	-242	52%	
2026	70,200	9.6%	5,270	115	5,385	269	504	-235	53%	
2027	72.630	9.8%	5.539	120	5.660	275	504	-229	55%	
2028	75.060	9.9%	5.815	126	5.941	281	504	-223	56%	
2029	77.666	10.1%	6.111	132	6.242	301	505	-204	60%	
2030	80,272	10.2%	6,412	138	6,550	308	505	-197	61%	
2031	82,878	10.4%	6,720	144	6,864	314		314		
2032	85,484	10.5%	7,035	150	7,185	321		321		
2033	88,090	10.7%	7,355	157	7,512	327		327		
2034	90,164	10.8%	7,637	162	7,799	287		287		
2035	92,238	11.0%	7,924	168	8,092	292		292		
2036	94,312	11.2%	8,215	174	8,389	298		298		
2037	96,386	11.3%	8,512	180	8,692	303		303		
2038	98,460	11.5%	8,814	186	9,000	308		308		
2039	100,412	11.6%	9,110	192	9,301	302		302		
2040	102,364	11.8%	9,410	198	9,608	306		306		
2041	104,316	11.9%	9,715	204	9,919	311		311		
2042	106,268	12.1%	10,025	210	10,235	316		316		
2043	108,220	12.2%	10,339	216	10,556	321		321		
2044	109,286	12.4%	10,573	221	10,794	238		238		
2045	110,352	12.5%	10,809	226	11,035	241		241		
2046	111,418	12.7%	11,048	231	11,278	243		243		
2047	112,484	12.8%	11,289	235	11,524	246		246		
2048	113,550	13.0%	11,532	240	11,773	249		249		

Source: WEBSTER
Table 32: Auckland Region - Retirement Village Unit Net Latent Demand Model

	Auckland Region									
Year - June	Popn. 70+ years	70+ Yrs. Penetration Rate	Base RV Unit Demand	Unit Replacement & Occupancy Rate Adjustments	Total RV Unit Demand	New RV Unit Demand per Annum	Development Pipeline Delivery Estimates	RV NLD - Units	% New Unit Demand of DP	
2024	168,024	10.5%	14,002	308	14,310	669	650	19	103%	
2025	174,898	10.6%	14,748	323	15,072	761	850		90%	
2026	181,772	10.8%	15,508	339	15,847	775	850	-75	91%	
2027	188,646	10.9%	16,282	354	16,636	789	850	-61	93%	
2028	195,520	11.0%	17,069	370	17,439	803	850	-47	94%	
2029	203,886	11.1%	18,002	388	18,390	951	850	101	112%	
2030	212,252	11.3%	18,951	407	19,359	968	850	118	114%	
2031	220,618	11.4%	19,917	427	20,344	985	850	135	116%	
2032	228,984	11.5%	20,899	446	21,346	1,002	850	152	118%	
2033	237,350	11.6%	21,898	466	22,365	1,019	851	168		
2034	245,280	11.8%	22,873	486	23,359	994		994		
2035	253,210	11.9%	23,864	506	24,370	1,011		1,011		
2036	261,140	12.0%	24,870	526	25,396	1,027		1,027		
2037	269,070	12.1%	25,893	546	26,439	1,043		1,043		
2038	277,000	12.3%	26,931	567	27,498	1,059		1,059		
2039	284,050	12.4%	27,898	586	28,484	987		987		
2040	291,100	12.5%	28,879	606	29,485	1,001		1,001		
2041	298,150	12.6%	29,874	626	30,500	1,015		1,015		
2042	305,200	12.8%	30,883	646	31,529	1,029		1,029		
2043	312,250	12.9%	31,906	667	32,573	1,044		1,044		
2044	315,656	13.0%	32,568	680	33,247	674		674		
2045	319,062	13.1%	33,236	693	33,929	681		681		
2046	322,468	13.3%	33,910	707	34,617	688		688		
2047	325,874	13.4%	34,592	720	35,312	695		695		
2048	329,280	13.5%	35,280	734	36,014	702		702		

Source: WEBSTER

Table 33: New Zealand - Retirement Village Unit Net Latent Demand Model

	New Zealand										
Vear -	Popp 70+	70+ Yrs. Penetration	Base RV	Unit Replacement & Occupancy Rate	Total RV	New RV Unit	Development Pipeline Delivery	RV NI D -	% New Unit Demand		
June	years	Rate	Demand	Adjustments	Demand	per Annum	Estimates	Units	DP		
2024	626,240	9.0%	44,379	980	45,359	1,235	1,700	-465	73%		
2025	648,480	9.1%	46,700	1,026	47,726	2,367	3,511	-1,144	67%		
2026	670,720	9.3%	49,072	1,073	50,145	2,419	3,514	-1,095	69%		
2027	692,960	9.4%	51,495	1,122	52,616	2,471	3,514	-1,043	70%		
2028	715,200	9.6%	53,969	1,171	55,140	2,523	3,514	-991	72%		
2029	741,100	9.7%	56,774	1,227	58,001	2,862	3,514	-652	81%		
2030	767,000	9.9%	59,639	1,285	60,923	2,922	3,514	-592	83%		
2031	792,900	10.0%	62,563	1,343	63,906	2,983	3,514	-531	85%		
2032	818,800	10.2%	65,547	1,403	66,950	3,044		3,044			
2033	844,700	10.3%	68,590	1,464	70,054	3,104		3,104			
2034	865,980	10.5%	71,313	1,518	72,831	2,777		2,777			
2035	887,260	10.6%	74,084	1,574	75,657	2,827		2,827			
2036	908,540	10.8%	76,904	1,630	78,534	2,876		2,876			
2037	929,820	10.9%	79,773	1,687	81,460	2,926		2,926			
2038	951,100	11.0%	82,691	1,746	84,437	2,976		2,976			
2039	969,800	11.2%	85,430	1,801	87,231	2,794		2,794			
2040	988,500	11.3%	88,213	1,856	90,069	2,838		2,838			
2041	1,007,200	11.5%	91,038	1,913	92,951	2,882		2,882			
2042	1,025,900	11.6%	93,906	1,970	95,876	2,926		2,926			
2043	1,044,600	11.8%	96,817	2,028	98,846	2,969		2,969			
2044	1,053,320	11.9%	98,835	2,069	100,904	2,058		2,058			
2045	1,062,040	12.1%	100,873	2,109	102,982	2,079		2,079			
2046	1,070,760	12.2%	102,931	2,151	105,081	2,099		2,099			
2047	1,079,480	12.4%	105,008	2,192	107,201	2,119		2,119			
2048	1,088,200	12.5%	107,106	2,234	109,340	2,140		2,140			

Source: WEBSTER

The findings for New Zealand as a whole suggest the possibility of an oversupply over the upcoming eight years. However, it's more probable that not all of the presently identified development pipeline will reach the market or the delivery of retirement village units will be postponed to a later stage in the forecast period.

APPENDIX C: AMENITY MIX INDICATORS

Table 34: Amenity Mix Indicators

	Tamahere	Tamahere	Summerset	Lauriston	Te Awa	Cambridge	Summerset -	Ryman -
	Country Club	Eventide	down the	Park	Lifecare	Oaks	Cambridge	Cambridge
Village Name			Lane					
	Sanderson	Tamahere	Summerset		Hurst	Freedom Lifestyle	Summerset	Ryman
Owner/Operator	Tamahoro	Tamahara		Arvida Loominator	Cambridge	Cambridge	Cambridge	Cambridge
				Learnington	cambridge	Cambridge	Cambridge	cambridge
Bowling Green		V			. /			
Dining Facilities	~		\mathbf{v}			~		~
Community/Village Centre	~	\checkmark			~	\checkmark	~	~
Spa Pool	~		\checkmark	~	\checkmark		~	~
Swimming Pool	~					•	\checkmark	~
Gym	~	~		~	\checkmark	\checkmark	\checkmark	\checkmark
Pétanque Court	\checkmark	~		\checkmark	•	•	•	
Café	\checkmark	\checkmark	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark
Restaurant								
Bar	\checkmark		\checkmark	\checkmark		\checkmark	\checkmark	\checkmark
Lounge/TV room	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Billiards	\checkmark				\checkmark			
Croquet Lawn	\checkmark			\checkmark				
Hair/Beauty Salon			\checkmark	\checkmark	\checkmark		\checkmark	\checkmark
BBQ Area	\checkmark		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Library	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Table Tennis								
Golf Putting Green				\checkmark				
Golf Driving Range	\checkmark							
Wellness Centre/Health Spa	\checkmark							
Theatre/Cinema	\checkmark			\checkmark	\checkmark		\checkmark	\checkmark
Pool Table	\checkmark		\checkmark	\checkmark		\checkmark	\checkmark	\checkmark
Shop								\checkmark
Communal Kitchen				\checkmark				
Chapel/Reflection Room		\checkmark						
Motorhome Parking	\checkmark	•		\checkmark		\checkmark		
Workshop		~	\checkmark		\checkmark	, V	\checkmark	\checkmark
Loan Car	•	•	•	·	•	·	•	·
Guest Suite								
Vegetable Garden/Glassbouse			\checkmark					
Art and Craft/Activity Room	~	~	•	<u> </u>	~	~		~
Health Clinic	•	, v		•	•	•		•
Piano	~	•		./				
Scooter Bay	*		*	•			•	
			1		1			
	. /		V		~			~
	×							
					V	V		
Source: WEBSTER	Note: some of	these facilities ar	e within the r	etirement v	illages deve	lopment pipeline	DP = D	evelopment Pipe

DP = Development Pipeline

NOTES

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