Residential Property Amalgamations in the Henderson-Massey Local Board Area, 2017 to 2025

March 2026

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Executive summary

Land amalgamation is an important tool in property development, enabling the 'unpicking' of existing property boundaries to create a larger combined site. This can potentially enable a far greater number of homes through using land more efficiently. Amalgamation, as defined in this study, is where two or more existing parcels or properties are combined and then redeveloped to a higher intensity.

Setback rules, fragmented ownership patterns and the small size of existing suburban properties act as barriers to higher-density redevelopment. Amalgamation can overcome these barriers and help achieve the quality compact approach to growth of the Auckland Unitary Plan (AUP) and the Future Development Strategy.

This study of the Henderson-Massey Local Board area builds on the earlier research by Fredrickson et al. (2016), which analysed amalgamations in the Auckland region between 2004 and 2014. This was prior to when the AUP became operative. This study investigates amalgamation under the AUP.

To determine the quantity, location and characteristics of amalgamations, a spatial model was developed based on the methodology of Fredrickson et al. (2016). It identified where two or more existing properties were subdivided across their boundaries resulting in an increase in the number of parcels. The Henderson-Massey Local Board area was selected as the study area because it has the highest number of consented dwelling units, particularly intensive infill developments.

The study identified 96 amalgamations within the study area.

Using building consents to measure development, 1704 units were consented on the sites, an average of 18 units per site.

As a proportion of total residential development, amalgamated sites accounted for 14 per cent of units consented. Of these dwellings, 80 per cent were terrace units, 13 per cent were apartment units and the rest were detached houses. A high proportion of amalgamations occurred within the top two most intensive residential zones[1].

Amalgamations which occurred on Kāinga Ora owned land accounted for 21 per cent of sites and 15 per cent of consented units.

Compared to the results of Fredrickson et al. (2016) in the Henderson-Massey Local Board area, the use of amalgamation moderately increased from 5.1 per cent of total development under legacy planning provisions to 14 per cent under the Auckland Unitary Plan.

A key research question posed by this study was whether amalgamations enable greater dwelling yield compared to a typical single parcel subdivision. Analysis found that development on amalgamated sites was only slightly denser compared to single parcel subdivision. This can be attributed to developers choosing to develop townhouses with parking areas rather than maximising dwelling yield with apartments. Therefore, all the potential theoretical gains in housing capacity were not taken up by developers who undertook amalgamation. This study does not examine the reasons why developers chose to develop at lower yields.

[1] Terrace Housing and Apartment Building Zone and Mixed Housing Urban Zone.

Overall, the study found that while making up a significant proportion of development, most development still occurred through single parcel subdivision.

The findings of this study may provide useful insights for Plan Change 120 (notified in November 2025) and future plan changes. However, this study does not directly address the potential for amalgamation to drive increased apartment development in newly upzoned areas closer to the city centre.

Contents

1.0 Introduction

Over the next 30 years, Tāmaki Makaurau / Auckland is expected to reach 2.2 million residents which will require 200,000 additional dwellings (Balderston et al., 2023). To accommodate this growth, Auckland Council's Future Development Strategy (FDS), aims for Auckland to follow a quality compact urban form approach to growth. This approach aims to optimise existing infrastructure, reduce sprawl, protect natural and rural environments, and support sustainable transport and vibrant communities (Auckland Council, 2023).

The process of amalgamation can enable larger development sites in existing neighbourhoods which can help to facilitate intensification. The term 'amalgamation' is generally used as a 'catch-all' phrase within the planning and development communities to describe any sort of agglomeration, amalgamation, aggregation or land assembly. It can potentially net a higher number of dwelling units than would be possible if the individual sites were developed separately.

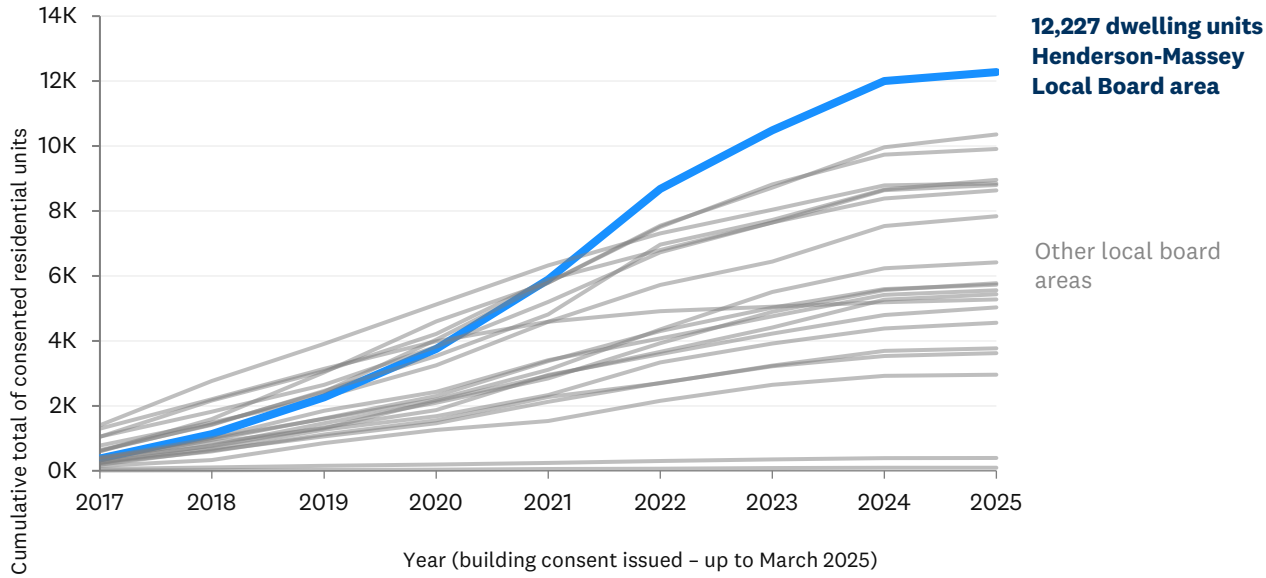
Currently, there is a significant gap in understanding the quantity and extent of amalgamations in Auckland. The last significant study into land amalgamation was a 2016 Auckland Council technical report by Fredrickson et al. (2016), which covered residential property amalgamations for the period of 2004 to 2014. Since that time, the Auckland Unitary Plan (AUP) has become operative and 106,000 residential dwelling units have been consented across Auckland's residential zoned land[2].

This study aims to understand parcel amalgamation as part of the land redevelopment process, and to better understand the types of intensification that have occurred post-AUP. This study adapts and adds to the methodology and analysis of the 2016 report.

The Henderson-Massey Local Board area was selected as the study area since it recorded the greatest number of dwellings consented of any local board area[3] as shown in Figure 1 below. The time series for the study was from January 2017 to May 2025.

[2] 106,000 residential units have been consented from January 2017 to March 2025 on residential zoned land.
[3] 12,200 residential units have been consented from January 2017 to March 2025, the most of any local board area.

Figure 1: cumulative total of residential dwelling units issued on residential zoned land by local board area



1.1 Purpose of research

The broad aims of the study were:

1. To identify the location, nature and extent of residential amalgamations in the Henderson-Massey Local Board area through the analysis of spatial datasets from January 2017 to May 2025.
2. To better understand developer behaviour in relation to the use of land amalgamation compared to single parcel subdivision.

The study aimed to answer the following questions:

1. To what extent have property amalgamations occurred in the Henderson-Massey Local Board area compared to single parcel subdivision?
2. What are the characteristics of amalgamations?
3. Do amalgamations result in greater dwelling yield than if the sites were developed separately?

1.2 Study scope

Within the study scope	Out of the study scope
Residential property (parcel/title) amalgamations	Subdivision of a single parcel, where a single property is subdivided into more than one parcel/title
Period of investigation is between January 2017 and May 2025	Cadastral adjustments which do not increase the net number of parcels and/or buildings
The process under investigation is the assembly (or purchasing) of two or more adjacent parcels/titles and subsequent subdivision across their common boundary. The definition of amalgamation used in the study is outlined in Section 2 below	Amalgamation of parcels in peri-urban or greenfield areas that have been rezoned to residential from another zoning (typically Future Urban zoned areas) with large-scale subdivision plans
Residential zoned land	Analysing change in land ownership prior to amalgamation

1.3 Why is this research important?

This research aims to provide a deeper understanding of the metrics, context and drivers of site amalgamations in relation to the current planning framework in Auckland. The analysis informs planners and decision-makers about how amalgamations are occurring under the AUP, enabling evidence-based policy evaluation and refinement. By building on the work of Fredrickson et al. (2016), this study allows for a comparison between amalgamations under the legacy plans and those under the AUP. Such insights enable council to consider whether the provisions of the AUP are encouraging land-use outcomes such as amalgamations in desirable locations, thereby helping to achieve the strategic direction of the FDS.

The outcomes of this study will provide valuable insights to inform Auckland Council's Housing and Business Development Capacity Assessments (HBA) and Plan Change 120.

1.4 Report structure

Section 1 introduces the report

Section 2 defines amalgamation as used in this study

Section 3 provides the context and background of amalgamation in New Zealand and internationally, and the results of the Fredrickson et al. (2016) report

Section 4 details the methods used to conduct the spatial analysis

Section 5 reports the results of the spatial analysis, including the geographic distribution, zoning and other attributes of amalgamations

Section 6 comparison between the results of Fredrickson et al. (2016) and this study

Section 7 discussion of the study's results

Section 8 conclusions of study

Section 9 provides references used in this study

Section 10 appendices

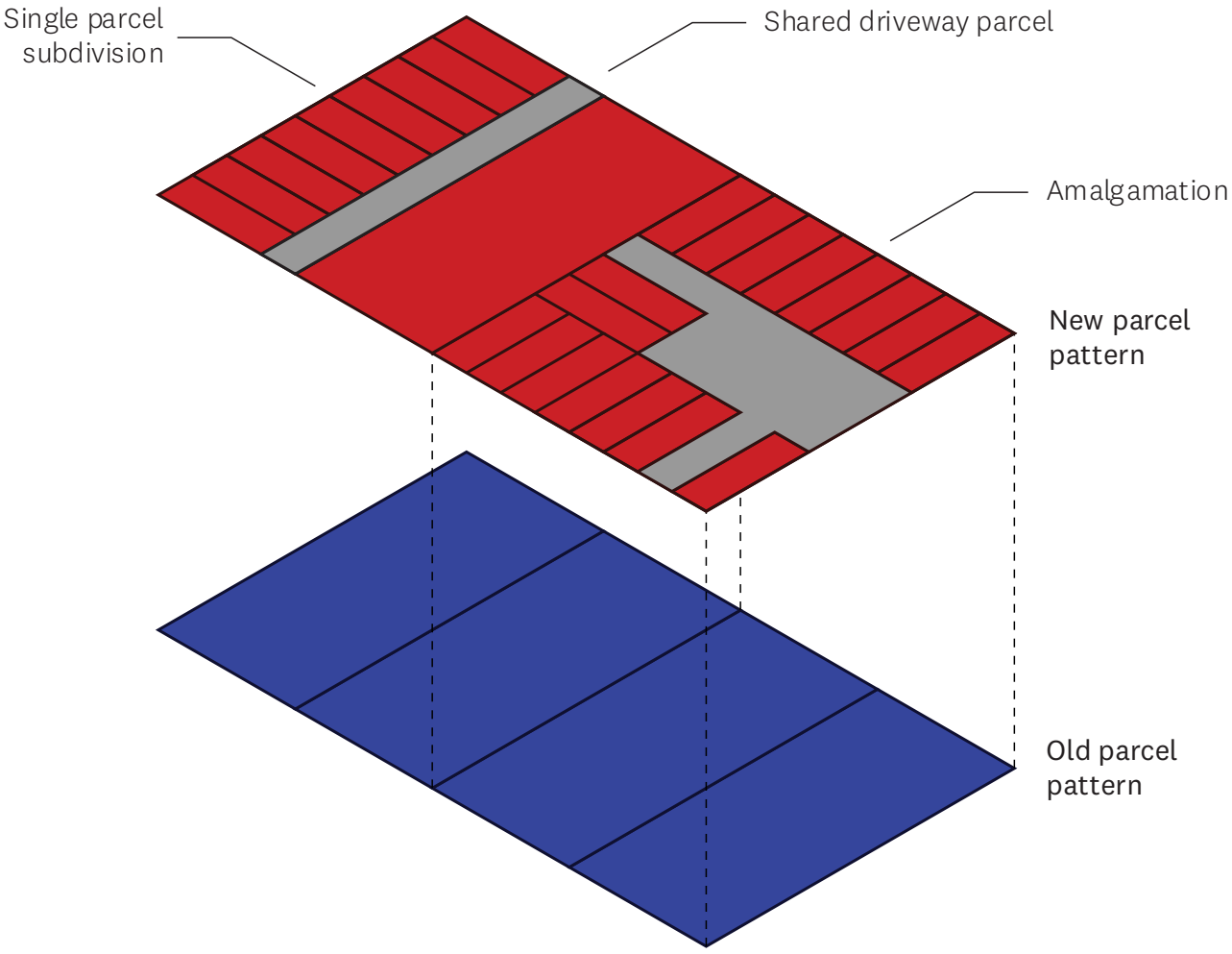
1.5 Outputs of the study

The outputs of the study are this technical report and an accompanying set of spatial datasets. The datasets show the location, extent and characteristics of amalgamations that have been identified in the spatial analysis phase of the study.

2.0 Defining amalgamations

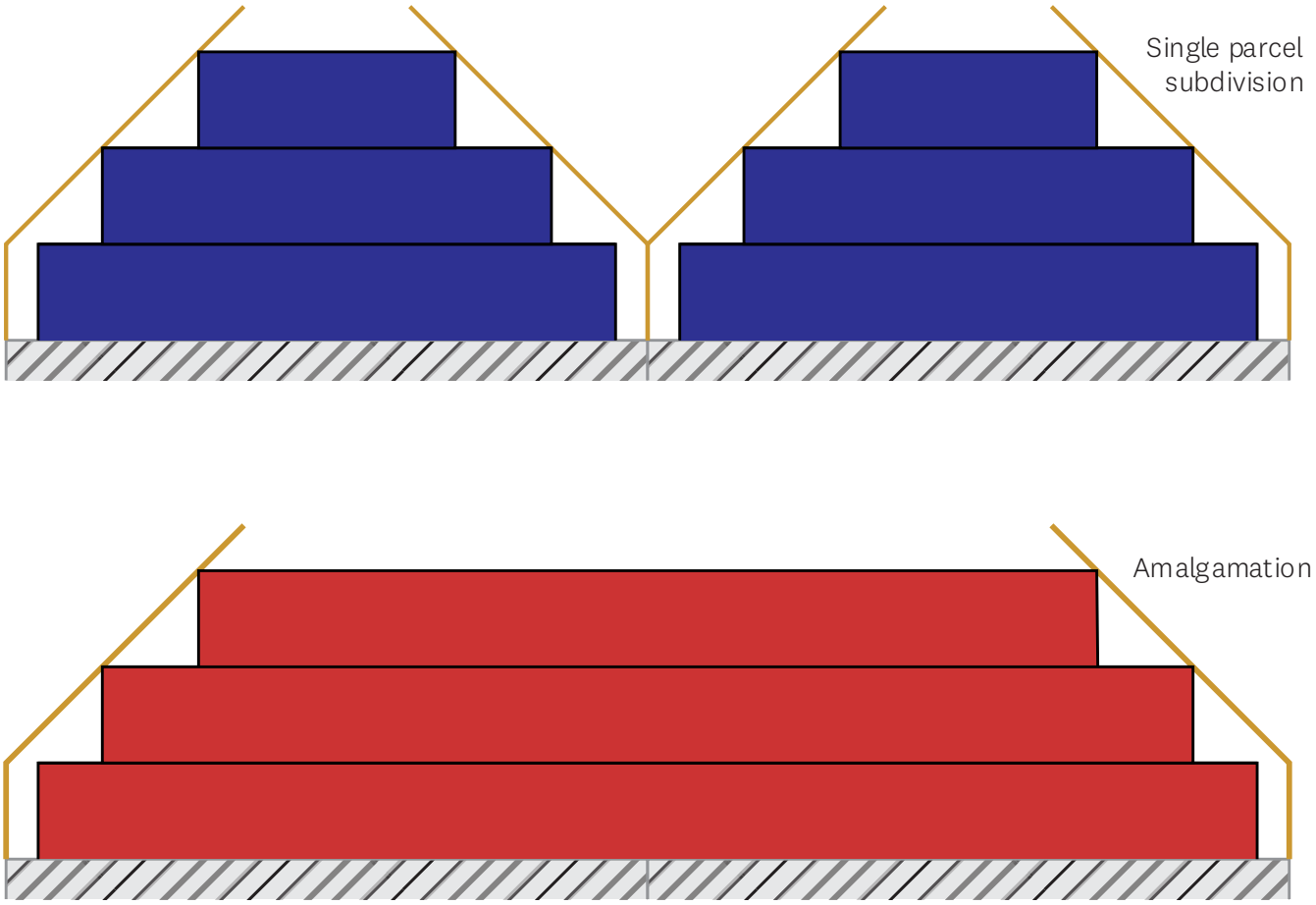
In simple terms, land amalgamation is where two or more properties or parcels of land are combined then subsequently subdivided across their common boundaries. Essentially, this process involves merging two or more (n) parcels/titles to create a net increase (n+1) in the total number of parcels. This contrasts single parcel subdivision where one parcel is subdivided into two or more parcels. Figure 2 below shows the process of amalgamation compared to single parcel subdivision.

Figure 2: diagram showing the process and difference between amalgamation and single parcel subdivision



Because two or more parcels are combined, the internal boundaries are ‘removed’ as they are now considered to be one site. If the parcels were developed separately, as in single parcel subdivision, setback rules from the site’s boundaries limit the development yield of the land. Therefore, by removing this common boundary, amalgamation can potentially increase the yield of land. Figure 3 below shows how amalgamations overcome the capacity reducing effects of height in relation to boundary. Therefore, in theory, amalgamations can result in greater floorspace and greater dwellings for the same land area.

Figure 3: comparison between the effect of setback rules (shown in orange) on development through single parcel subdivision and amalgamation



3.0 Background and Fredrickson et al. 2016 study

3.1 Legislative context

Currently several pieces of legislation govern the amalgamation process. This subsection is an overview of those Acts to better understand the legislative context of amalgamation.

3.1.1 Resource Management Act 1991

Amalgamations and subdivisions of parcels are both undertaken under provisions of the Resource Management Act 1991 (RMA). Amalgamation, as defined in this study, is essentially subdivision across multiple parcels. There is no difference under the RMA between the subdivision of one or more parcels. Subdivision, regardless of the number of input parcels, requires the application for a subdivision resource consent (Quality Planning, n.d.).

Using the examples in Figure 2 and Figure 3 above, the developer, who has purchased both lots, applies to the council for subdivision and land use consents. The developer has not applied to merge (and have a new certificate of title issued) for the two parcels. Instead, the submitted scheme plan would detail the resulting subdivision across the original parcels, which creates the new parcels.

3.1.2 National Policy Statement on Urban Development 2020

The National Policy Statement on Urban Development 2020 (NPS-UD 2020) aims for New Zealand to have well-functioning urban environments (Ministry for the Environment [MfE], 2022). The concept of well-functioning urban environments is further defined, albeit nebulously, under policy 1. Joynt (2021) undertook a literature review to determine what is included in this definition.

The process of amalgamation can support the built environment outcome of a well-functioning urban environment. Because the AUP requires setbacks from property boundaries, a larger combined site can be developed at a higher dwelling density than if each parcel was developed separately. This could potentially result in better amenity outcomes as the location and design of dwellings are more flexible compared to standard subdivision of a smaller site. This is particularly true for Auckland's typically narrow suburban sites, which often result in 'sausage' flat developments.

3.1.3 Building Act 2004

Under the Building Act 2004, it is prohibited to build a structure or building over property boundaries. A person may apply to construct a building over two parcels, but the council must issue a certificate (under s75(2)) stating that the consent is conditional on the parcels not being sold or leased.

3.2 International context of land amalgamation

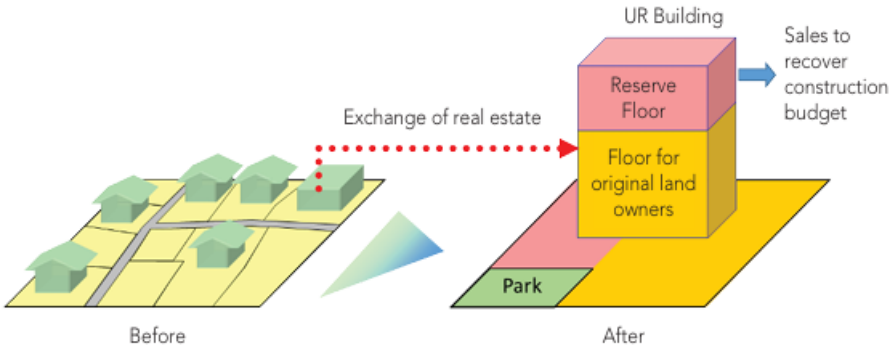
A review of literature indicates that 'land assembly' is the most common international term to describe the process of land amalgamation. Although it has not been clearly defined, it is generally conceptualised as the process of assembling multiple individually owned parcels into one large single-owned parcel or land holding to facilitate development (Brooks & Lutz, 2016; Home, 2007). Home (2007) states that there are two standard methods to land assembly – voluntary cooperation (i.e. private developer buys multiple parcels), or compulsory acquisition by a public authority (or a mixture of the two).

The modification and assembly of parcel boundaries is seen as essential for economic growth and the innovation of cities (Brooks & Lutz, 2016). Existing property boundaries and multiple owners act as a barrier to urban redevelopment because the old division of land does not facilitate efficient urban development (Louw, 2008). By 'picking apart' the existing parcel or cadastral pattern, land assembly can enable large scale urban regeneration (Louw, 2008). Land assembly can also improve the efficiency of land markets and cities generally through the better provision of infrastructure and greater housing capacity (Martin, 2025; Strange, 1994). Within the context of zoning and land use regulations, land assembly may be required to accommodate sufficient setbacks to enable high-density construction (Cunningham, 2013).

A common issue for land assembly is the holdout problem. Small landowners ask for disproportionate prices for their land once they know their land is necessary for a project, so they can hold out for an above market price (Miceli & Segerson, 2012; Strange, 1994). Brooks and Lutz (2016) argue that this confers a form of monopoly power to a landowner. This may result in the project becoming unviable or reducing the amount of housing built (Brooks & Lutz, 2017; Strange, 1994).

An alternative approach to undertaking land amalgamation is the Japanese planning tool of 'land readjustment' (*tochi kukaku seiri*). Its function is to pool (or amalgamate) neighbouring plots into one larger collective plot, then redraw the boundaries in such a way that enables a more efficient use of land (Martin, 2025). Each former owner receives a smaller but regularly shaped plot (or a share in a building), while the remainder of land is allocated for infrastructure such as roads, parks or metro stations (Matsui, 2019). The conceptual process of urban land readjustment is shown below in Figure 4.

Figure 4: conceptual model of Japanese land readjustment (Matsui, 2019)



Prior to the use of land readjustment, Japanese rural and urban plots were typically subdivided into small, irregularly shaped plots (Mansour, 2024; Martin, 2025). They were poorly served by infrastructure which did not meet the needs of a modernising Japan. Through land readjustment, 28,000 hectares of brownfield land was readjusted by schemes in 102 cities after the Second World War (Martin, 2025).

As opposed to expropriation-based planning or the ad hoc purchasing of land, the Japanese model relies on the agreement of the supermajority of landowners (Martin, 2025; UN-Habitat, 2018). An implementer of a scheme (often a private developer) engages with the landowners over several years and once they agree, the land is redistributed with large windfalls for the landowners. This collaborative

approach and the even distribution of profits ensure the support of large-scale urban change (Martin, 2025; UN-Habitat, 2018).

This shows that land fragmentation is a common issue and how alternative methods can facilitate efficient land redevelopment.

3.3 Fredrickson, Fergusson and Wildish 2016 study

This subsection explores the findings of Fredrickson et al. (2016), which provided the foundations for this study.

While both studies share similar purposes, aims, and scope, there are notable differences. The current study focuses exclusively on the Henderson-Massey Local Board area, whereas the 2016 study covered the entire Auckland region. Additionally, the timeframes differ: January 2017 to May 2025 for this study compared to 2004 to 2014 in the earlier report. Another key difference is the 2016 study's definition of amalgamation. Fredrickson et al. (2016) defined amalgamation as the merging of two or more parcels. It also used the term 'aggregation' as the subdivision across two or more parcels. If comparing the two, the definition of amalgamation in the current study is most similar to the definition of aggregation in Fredrickson et al. (2016).

The context of the earlier study also differs significantly from today. At that time, the AUP was not operative, and the proposed version contained provisions that varied from those in the final operative plan.

Key findings from the 2016 report are listed below.

- The study identified 402 amalgamations and 800 aggregations within the study period (across the region).
- The majority of amalgamations and aggregations occurred in the Auckland City Council area. Waitākere City had 120 aggregations.
- There were 11 amalgamations and 72 aggregations in the Henderson-Massey Local Board area.
- The average number of parcels used in aggregations was 2.4, and the average number created was 5.3.
- The median parcel size used in aggregations was 842m^2 and the median created was 449m^2. Over 80 per cent of parcels created were smaller than 600m^2, with 33 per cent being smaller than 400m^2.
- The majority (69 per cent) of dwellings consented on amalgamation or aggregation sites were detached, with 25 per cent being units or townhouses.
- Across the study period, 2673 dwellings were consented on amalgamated or aggregated sites, from a total of 52,250 dwellings consented in the entire urban area. This means that development on amalgamated and aggregated sites accounted for 5.1 per cent of total residential development.
- The proportion of dwellings consented on amalgamated and aggregated sites peaked at 8.2 per cent in 2011.
- 16 per cent of amalgamations and aggregations occurred on publicly owned land, accounting for 30 per cent of consented building units.

4.0 Spatial analysis method

As no existing datasets were available to show where amalgamations had occurred, a series of geospatial queries had to be built into a model to identify them. The model was adapted from the methodology outlined in Fredrickson et al. (2016).

4.1 Study area

Figure 5 below shows the area used in this study. Amalgamations in peri-urban areas (e.g. Westgate and Red Hills) were excluded through a manual checking process.

Figure 5: map showing the study area

4.2 Identifying amalgamations

The following subsections outline the process undertaken to identify the locations and nature of amalgamations which occurred between 2017 and 2025 in the Henderson-Massey Local Board area. The analysis was undertaken in two parts.

1. Machine processing was first undertaken to generate a dataset of potential amalgamation candidates for further inspection.
2. A manual review of the candidates' dataset was then conducted to identify and correct errors, and to exclude cadastral changes that were out of scope for this study.

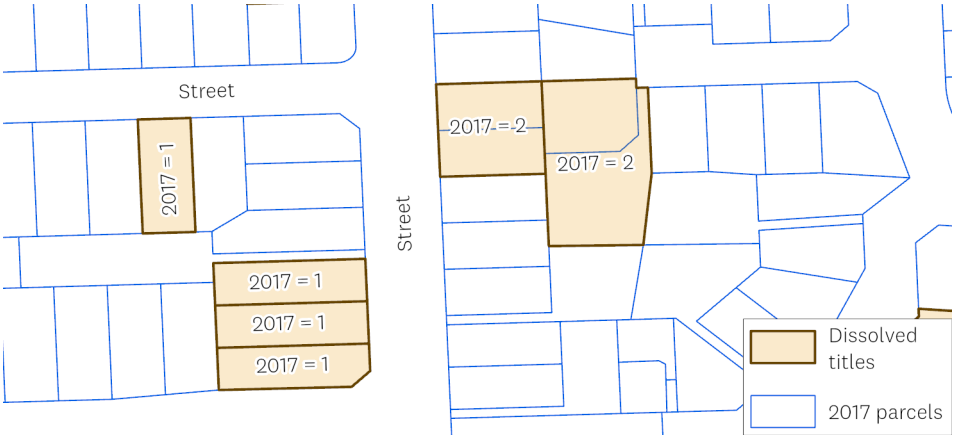
The output of this process was to create a geodatabase containing valid amalgamations.

4.2.1 Identifying amalgamation candidates

Table 1 below outlines a simplified method of how amalgamations were identified. The queries were created and run using a software programme called FME. The input data used in the analysis can be found in Appendix A. A copy of the FME workbench schematics can be found in Appendix B.

Table 1: method for identifying amalgamations, adapted from Fredrickson et al. (2016)

Step	Diagram
Step 1: Use the 2025 property title polygons as base.	
Step 2: Dissolve polygons based on the creation date and time of the property title polygon (dissolved title polygons). Where two adjoining titles have the same issue date and time, they are dissolved to create a new single polygon.	

Step	Diagram
Step 3: Convert 2017 parcel polygons to centroids, where they fall within a dissolved title polygon.	
Step 4: Count the number of 2017 parcel centroids that fall within the dissolved property title polygon dataset, assign this count to the dissolved property title polygon dataset.	
Step 5: Identify dissolved property title polygons that have a 2017 centroid count of two or more, filtering out the rest. A count of less than two 2017 parcel centroids are single parcel subdivisions and are outside the scope of this study.	

4.2.2 Manually checking amalgamation candidates to generate a valid amalgamations database

The dataset was checked on ArcGIS Pro, a mapping software, and each candidate amalgamation was reviewed. 2017 and 2025 parcel boundaries and aerial photography from 2008, 2017 and 2025 were overlaid as reference.

The following candidate amalgamations were tagged for removal:

- outside the study's scope (e.g. peri-urban, non-residential and single parcel subdivision)
- parcels which were modified to accommodate the widening of State Highway 16
- adjoining parcels where the boundary was adjusted with no net gain of parcels or buildings.

There were some instances where valid amalgamations were duplicated, or the dissolved title boundary was incorrect. Using parcel boundaries and satellite imagery, these were either removed or corrected.

5.0 Results of spatial analysis

The spatial analysis identified 96 valid amalgamations, an average of 12 per year across the study period. The following subsections describe the characteristics of the amalgamations.

5.1 Residential development on amalgamated sites

Building consent data sourced from Statistics New Zealand (Stats NZ) allows for the measurement of residential development across Auckland. The identified amalgamated sites were overlaid with building consent data to augment the study data with information about the development that occurred after amalgamation.

Each month, building consent data, which originates from Auckland Council, is supplied to Stats NZ and processed and collated into a standardised format, which is then used for official statistics reporting. The Land Use Research and Evaluation (LURE) team obtains a copy of this processed data from Stats NZ and further processes it into spatial data.

As shown in Figure 6 below, 1704 residential units were consented on amalgamated sites compared to 10,573 units on non-amalgamated sites (i.e. through single parcel subdivision). Amalgamations accounted for 14 per cent of total residential development.

Figure 6: cumulative total of residential units consented on amalgamated and non-amalgamated sites

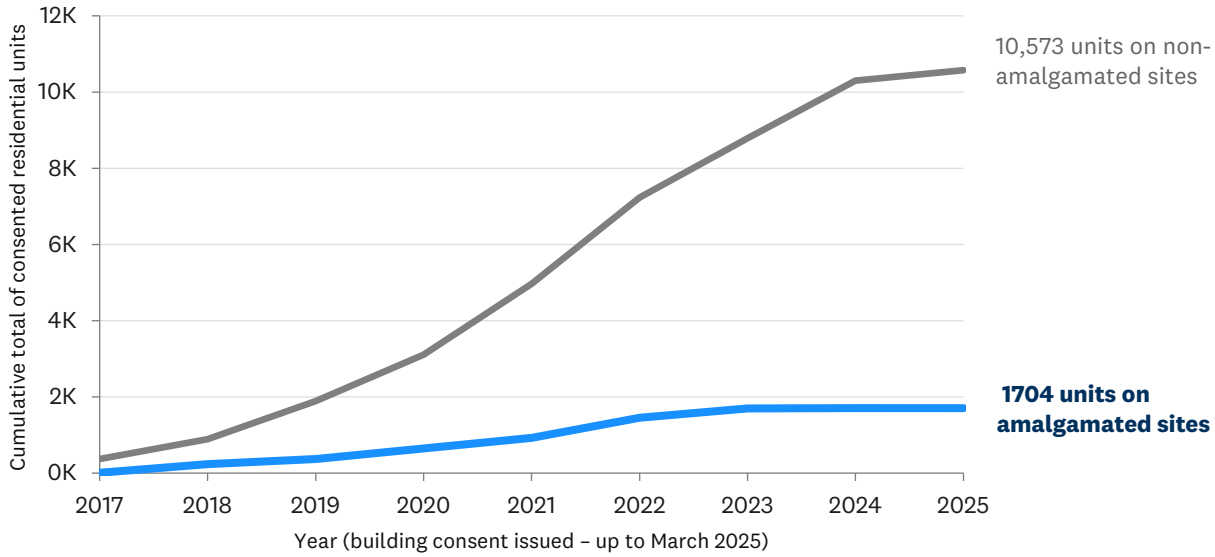
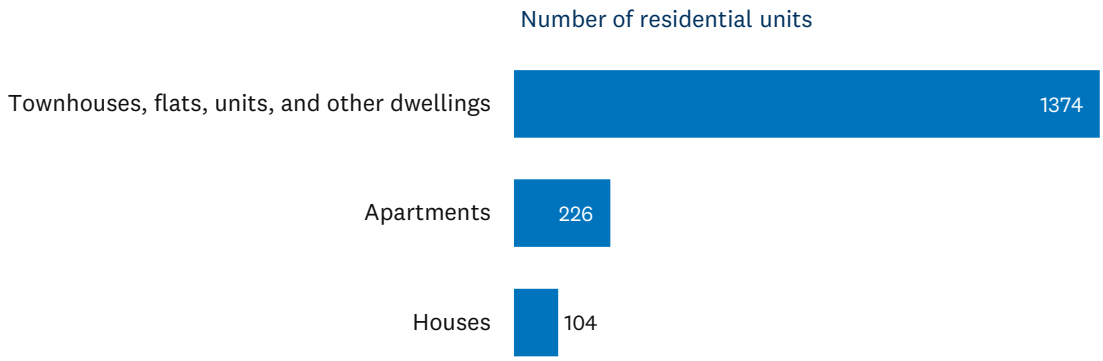


Figure 7: number of consented residential units by typology

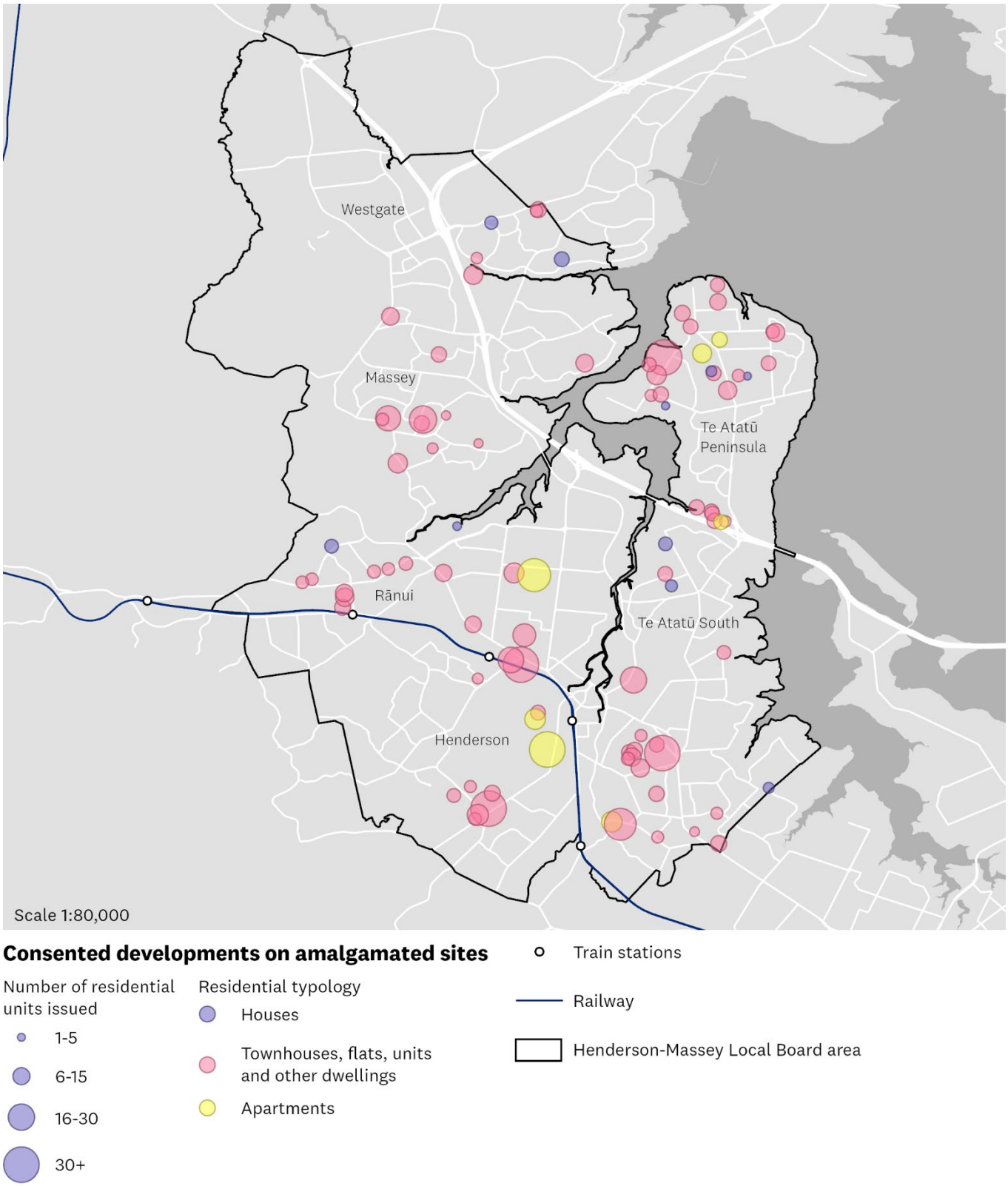


Stats NZ applies a standard consent typology to all building consents. This shows what type of consents have been issued, for example, whether it was for a residential dwelling, a commercial office block, or an industrial factory.

Figure 7 above shows that most residential building consents issued on amalgamated sites were ‘townhouses, flats, units, other’ (i.e. terrace housing), accounting for 80 per cent of consented units. Only 104 or 6 per cent of buildings were detached houses. The average number of dwelling units consented per amalgamation was 18.

Figure 8 below the shows the spatial distribution of developments as a result of amalgamation.

Figure 8: number of residential units and their dominant typology issued on amalgamated sites[4]

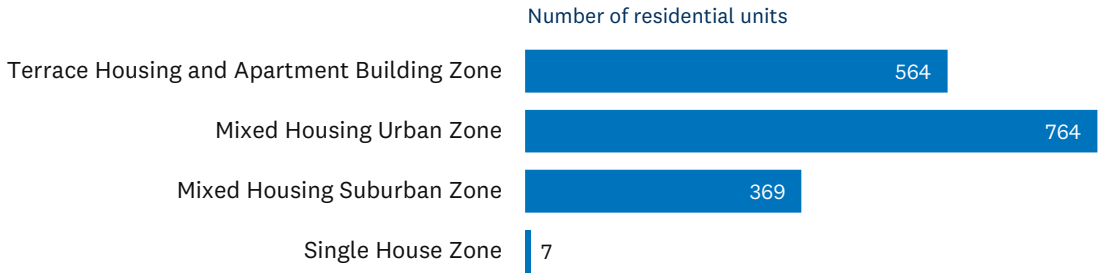


[4] Five amalgamations did not overlap with building consents issued after November 2016 (when the AUP became operative), this may be due their building consents being issued prior to this date or geocoding errors in the building consents database.

5.2 Zoning

Seventy-eight per cent of residential units consented on amalgamated sites were in either the Residential – Mixed Housing Urban Zone (MHU) or the Residential – Terrace Housing and Apartment Building Zone (THAB) as shown in Figure 9 below.

Figure 9: number of issued residential units by AUP(OP) zone



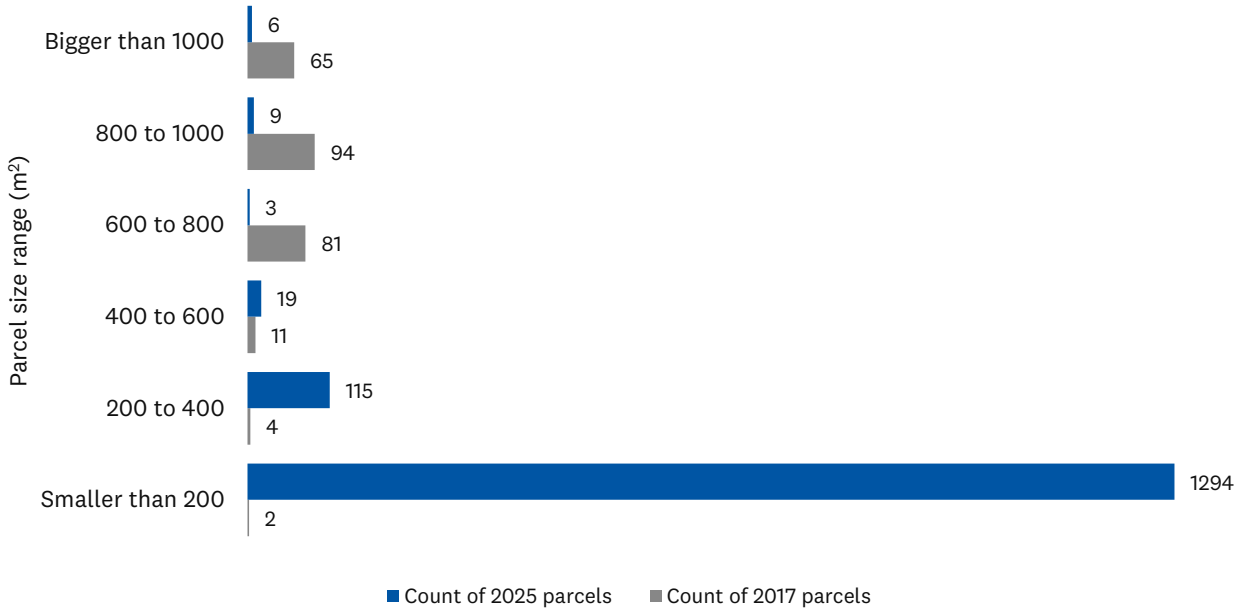
5.3 Parcels

The process of amalgamation, as defined in this study, is an increase in the number of parcels through the subdivision of two or more parcels. Therefore, it is not surprising that the number of parcels within the identified amalgamations increased from 257 in 2017 to 1446 in 2025[5] – an increase of 1189, or 462 per cent.

The average number of parcels used was 2.6 and the average created was 15. The median parcel size used was 813m^2 and the median parcel sized created by amalgamation was 83m^2. Figure 10 below shows the size range of 2017 and 2025 parcels. Sixty-eight per cent of 2017 parcels were between 600m^2 and 1000m^2. Conversely, 89 per cent of 2025 parcels were smaller than 200m^2.

[5] Access lot and parking parcels were excluded from the analysis (i.e. only parcels containing buildings were included).

Figure 10: count of 2017 and 2025 parcels by size range

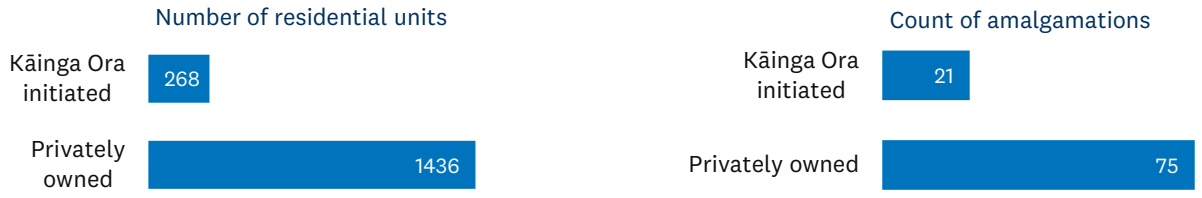


5.4 Kāinga Ora initiated amalgamations

The drivers to undertake amalgamations on publicly owned land, such as those undertaken by Kāinga Ora, are likely different from those in the private sector. Kāinga Ora makes more efficient use of their existing land holdings through redevelopment at a smaller scale (less than 1ha) and undertakes large-scale urban development projects in partnership with developers, councils and iwi, such as in Northcote, Roskill and Māngere (Kāinga Ora, n.d.). They focus on delivering social housing rather than focusing on selling homes for profit (Kāinga Ora, n.d.).

Through analysis of the land ownership[6], 21 per cent of amalgamations and 15 per cent of consented units were initiated by Kāinga Ora, as shown in Figure 11 below.

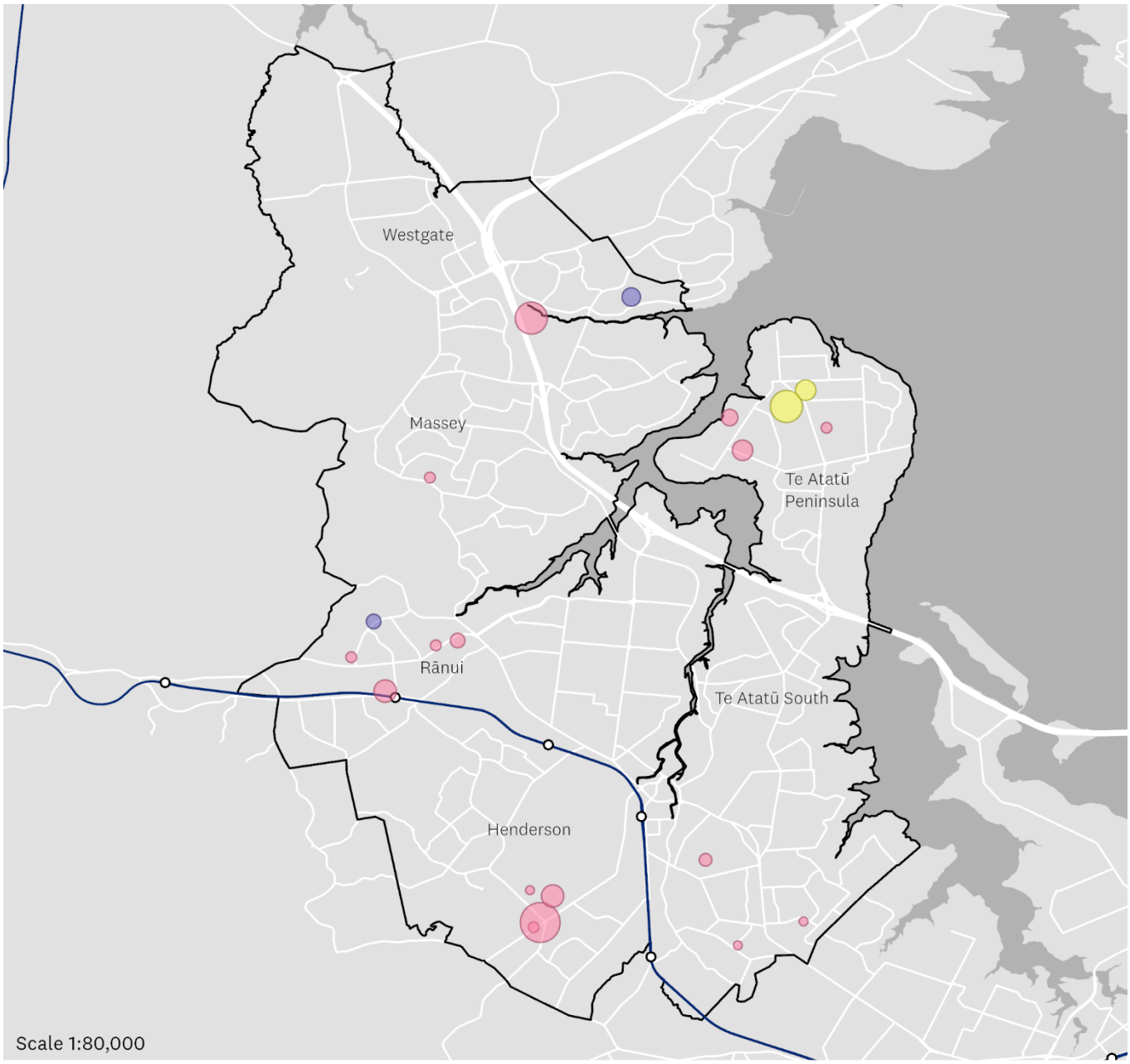
Figure 11: number of consented residential units and count of amalgamations that were Kāinga Ora or privately initiated



The distribution of Kāinga Ora initiated amalgamations is shown below in Figure 12.

[6] Ownership information as of May 2025, refer to Appendix A for list of data sources

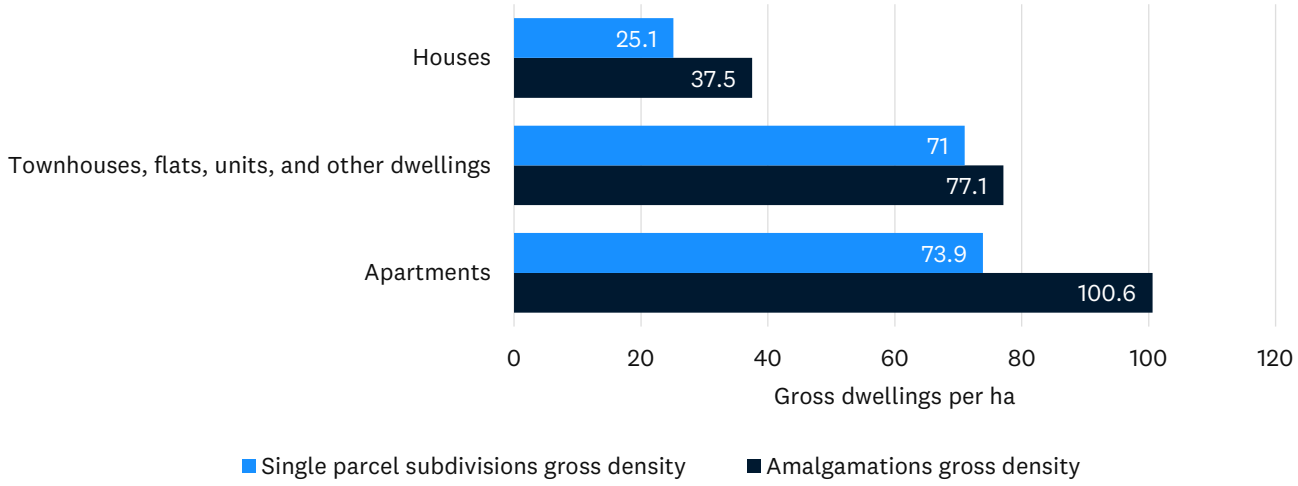
Figure 12: Kāinga Ora initiated developments, number of residential units and their dominant typology



5.5 Dwelling density

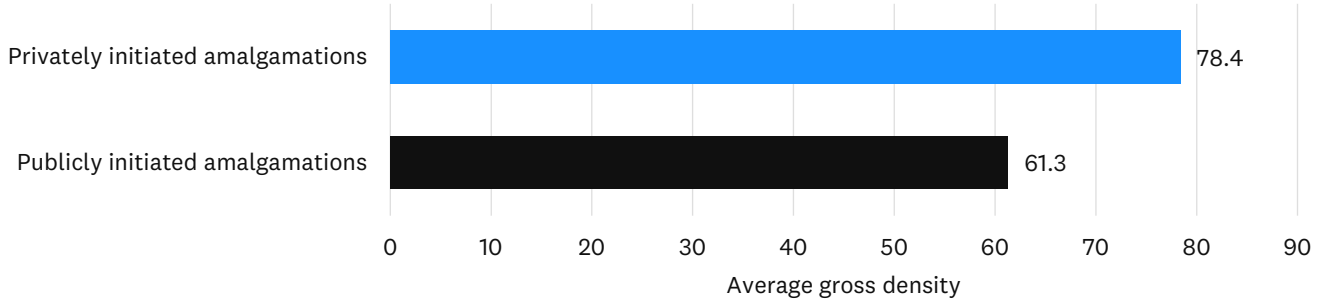
One way to measure the 'intensity' of a development type is to analyse the dwelling density expressed as dwellings per hectare. Through analysing the average gross dwelling densities of amalgamated sites identified in the study, as shown in Figure 13 below, amalgamations resulted in greater density compared to single parcel subdivided developments. Amalgamations were on average 50 per cent denser across all typologies. For townhouses, the most common typology, the difference is narrow as amalgamations were only 8.6 per cent denser. It is important to note that there were few detached houses and apartments consented on amalgamated site, so it is difficult to draw statistically significant conclusions on the difference between their average density.

Figure 13: comparison of average gross dwelling density between single parcel subdivision sites and amalgamated sites



As shown in Figure 14 below, privately initiated amalgamations were on average 28 per cent denser compared to publicly initiated amalgamations. It is important to note that there were few (n=21) publicly initiated amalgamations identified, so it is difficult to draw conclusions based on the data.

Figure 14: comparison of average gross dwelling density between publicly and privately initiated amalgamation sites



Interestingly, the average net density, as in the average number of dwellings on land excluding parking and access areas, is significantly higher on amalgamated sites than for non-amalgamated sites. This is shown in Figure 15 below.

Figure 15: comparison of average net dwelling density between single parcel subdivision sites and amalgamation sites

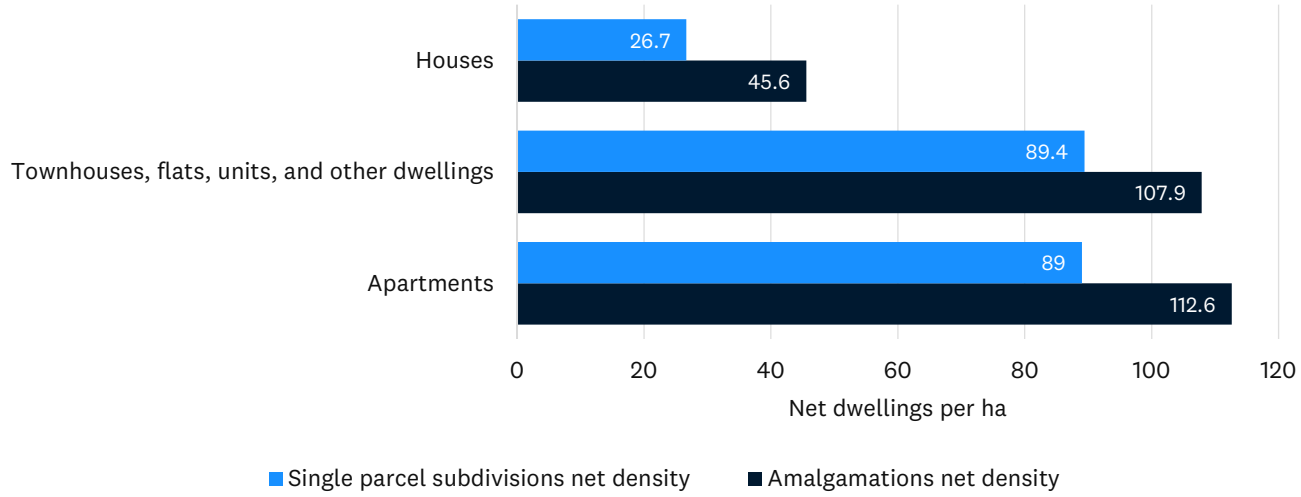


Figure 16: an example development as the result of site amalgamation in Henderson

The difference in net density versus gross density is a result of how the land within a site is allocated between housing units and common areas, parking, and access ways. Figure 16 above shows an example of a townhouse development on a large amalgamated site. This development is THAB zoned and contains 62 townhouses across a total site area of 7305m^2 with the following characteristics:

- gross density of 84 dwellings per hectare
- net density of 149 dwellings per hectare
- 3167m^2 is taken up by parking and access which represents 43 per cent of the total site area
- average size of building parcels is 66m^2.

Since the site is so deep (175m) and parking is located at the rear, a significant portion of the site's area was used for parking and access. This resulted in less land available for dwellings. On average, amalgamated sites in the study allocated a greater share of land area to parking and circulation of vehicles than non-amalgamated subdivisions.

6.0 Amalgamations pre-AUP compared to post-AUP

This section compares amalgamations completed prior to and after the AUP became operative in 2016. Table 2 below compares the findings of Fredrickson et al. (2016) and this study.

Findings reported in the Fredrickson et al. (2016) are for the Henderson-Massey Local Board area unless otherwise stated. Also note that 'amalgamations' refer to findings from identified aggregations in the 2016 study (as set out in Section 4).

Table 2: Comparison of findings between Fredrickson et al. (2016) and this study

Pre-AUP amalgamations (Fredrickson et al., 2016)	**Post-AUP amalgamations (this study)**
Count of amalgamations	
6.9 amalgamations per year[7]	12 amalgamations per year[8]
Zoning	
71 per cent of amalgamations occurred in the top two most intensive zones[9]	78 per cent of consented residential dwelling units on amalgamated sites were issued in either MHU or THAB zones
Parcels used and parcels created[10]	
2.4 average parcels used; 5.3 average parcels created	2.6 average parcels used; 15 average parcels created
121 per cent increase in the number parcels	462 per cent increase in the number parcels
Median parcel size used was 842m^2; median parcel size created was 449m^2	Median parcel size used was 813m^2; median parcel size created was 83m^2
Residential development on amalgamations	
94 per cent of dwelling units were standalone houses while 6 per cent of dwellings were terraces or apartments[11]	6 per cent of dwelling units were standalone houses, 80 per cent were terraces and 13 per cent were apartments

[7] There were 72 aggregations identified in the Fredrickson et al. (2016) study in the Henderson-Massey Local Board area. The study's time period was 10 years and 6 months.
[8] This study identified 96 amalgamations over a time period of 8 years 4 months.
[9] The top two most intensive zones in the Waitākere City District Plan (where the Henderson-Massey Local Board area is) were 'Living' and 'Living 2'. 85 of 120 aggregations in Waitākere City occurred in these zones. Although this includes developments outside of the Henderson-Massey Local Board area.
[10] These figures are for aggregations as these are consistent with this study's design.
[11] Stats NZ updated their building typologies in April 2015 so there may be inconsistencies with comparing building consents issued pre-2015 (the 2016 study) compared to now.

Pre-AUP amalgamations (Fredrickson et al., 2016)	Post-AUP amalgamations (this study)
5.1 per cent of all residential dwellings were consented on amalgamated sites[12]	14 per cent of all residential dwellings were consented on amalgamation sites
Publicly initiated amalgamations	
21.8 per cent of amalgamations and 30 per cent of buildings were on publicly owned land[13]	21 per cent of amalgamations and 15 per cent of units consented on amalgamated sites were on publicly owned land

[12] 2673 units were consented on amalgamation or aggregation sites, from a total of 52,250 dwellings in the entire urban area.
[13] 542 units were consented on amalgamation or aggregation sites, they were primarily undertaken by Housing New Zealand (now Kāinga Ora).

7.0 Discussion

The results of this study indicate that the uptake of amalgamations under the AUP has been greater than under legacy planning provisions. The study identified 96 amalgamations in the Henderson-Massey Local Board area, an average of 12 per year between 2017 and 2025. Developments on amalgamated sites resulted in 1704 dwellings. While significant, this represents only a limited proportion of total development in the study area – around 14 per cent. This indicates that most development still occurred through single parcel subdivision.

Developments on amalgamated sites were predominantly townhouses and occurred primarily on higher intensity zones (MHU and THAB). Zoning rules under the AUP have no explicit dwelling density limits[14], only bulk and location standards. Therefore, it is not surprising that amalgamations mostly occurred in more permissive zones as they allow for greater dwelling yields. The resulting parcels (excluding parking and access) were significantly smaller than the input parcels – median size of 83m^2 compared to 813m^2.

Kāinga Ora, as a major landowner and developer, undertook a sizeable proportion of amalgamations, representing around 21 per cent. This is an increase from the 2004 to 2014 study period. As this was Kāinga Ora (and its predecessor organisation) redeveloping their existing adjoining land holdings, amalgamation did not enable additional dwellings compared to a single parcel subdivision[15]. The focus of this study was primarily on whether private developers chose to overcome the barriers of land acquisition to undertake land amalgamation. Notwithstanding the importance and relevance of publicly initiated amalgamations.

A key research objective was to analyse whether amalgamations lead to greater intensity compared to single parcel subdivision. The analysis found that amalgamations led to only slightly more intensive developments. While amalgamation offers a greater theoretical dwelling yield, developers did not choose to fully realise this potential. Providing parking and driveway access to all dwellings, as was most common, took up a significant proportion of land, reducing the dwelling yield. Furthermore, although the MHU and THAB zones allow for apartment developments, the vast majority of developments[16] in the Henderson-Massey Local Board area were two and three storey townhouses. Developers are profit maximisers in the housing market, responding to local demand and policy settings. The development trends observed in this study indicate that the housing market in West Auckland is geared more toward townhouses with on-site parking than higher density apartments. This does limit the applicability of this study to areas closer to the city centre with higher land values and better accessibility, where amalgamations may be more likely to result in apartments.

[14] Single House Zone and other low intensity zones control dwellings rather than bulk and location but are not relevant to this analysis as they facilitate very limited intensification opportunities.
[15] Kāinga Ora does not need to setback from properties they own.
[16] Total development (both single parcel and amalgamation).

The study found that Kāinga Ora initiated developments were less intensive than privately initiated developments. Aerial imagery shows that Kāinga Ora developments often include communal open space and a variety of typologies (e.g. duplexes and single large houses) rather than maximising the number of dwellings on the site. This is because its development drivers of providing social housing are different to that of a profit-seeking private developer.

8.0 Conclusion

Spatial analysis of residential amalgamations carried out since the AUP became operative show that the majority of development occurred through single parcel subdivision rather than amalgamation. Although uptake of amalgamations has increased compared to pre-AUP plans, without interviewing developers[17] it is hard to conclude the reasons for the uptake of amalgamations. The holdout problem, amongst other barriers, may have dissuaded developers from using amalgamation.

A key question for this research was whether amalgamations have enabled greater dwelling yield compared to a typical single parcel subdivision. The study found that they resulted in only a small increase in the average dwelling yield compared to single parcel subdivision in the Henderson-Massey Local Board area. This can be attributed to developers choosing to develop townhouses with parking areas rather than maximising the building envelope and dwelling yield on amalgamated sites through apartments. This may be because of various factors such as market demand and preferences, the higher cost of building apartments, longer timeframes, consenting delays and higher risks compared to townhouses (Housing Technical Working Group, 2024; Shahzad et al., 2021).

Compared to amalgamations under legacy planning provisions, amalgamations under the AUP resulted in significantly denser developments. As intensive AUP zones do not explicitly control dwelling density, larger amalgamated sites allowed for the development of 10 or more terraced dwellings. As a proportion of total development, the use of amalgamation for development has moderately increased compared to legacy planning provisions.

The notification of Plan Change 120 in November 2025 creates a significant opportunity to enable high-density apartment development (six to 15 storeys) in suburban areas. However, the existing cadastral pattern, particularly in some older suburban areas of central Auckland, consists largely of small, narrow residential sites. Under the proposed recession plane rules, achieving heights beyond six storeys on individual sites is unlikely without amalgamating neighbouring properties. Site amalgamation, therefore, is likely to become an increasingly important tool for unlocking greater height and intensification across brownfield sites.

This study only investigated the Henderson-Massey Local Board area, which has seen mostly terrace housing developments. Without a large sample size of amalgamations which facilitated apartment developments, it is difficult to conclude from this study whether developers will use amalgamations to undertake high-density apartments in THAB 10 and 15 storey areas.

This study has illustrated the uptake of amalgamations and how they can overcome constraints of existing property boundaries and height-to-boundary limitations. Existing ownership patterns have a significant impact on the potential and uptake of development opportunities under existing and proposed planning regulations, particularly in the context of high-density intensification. Future investigations should be undertaken across the whole region and different territorial authorities.

[17] Fredrickson et al. (2016) only managed to interview one developer who undertook amalgamation. Auckland Council does undertake a developer survey bi-annually.

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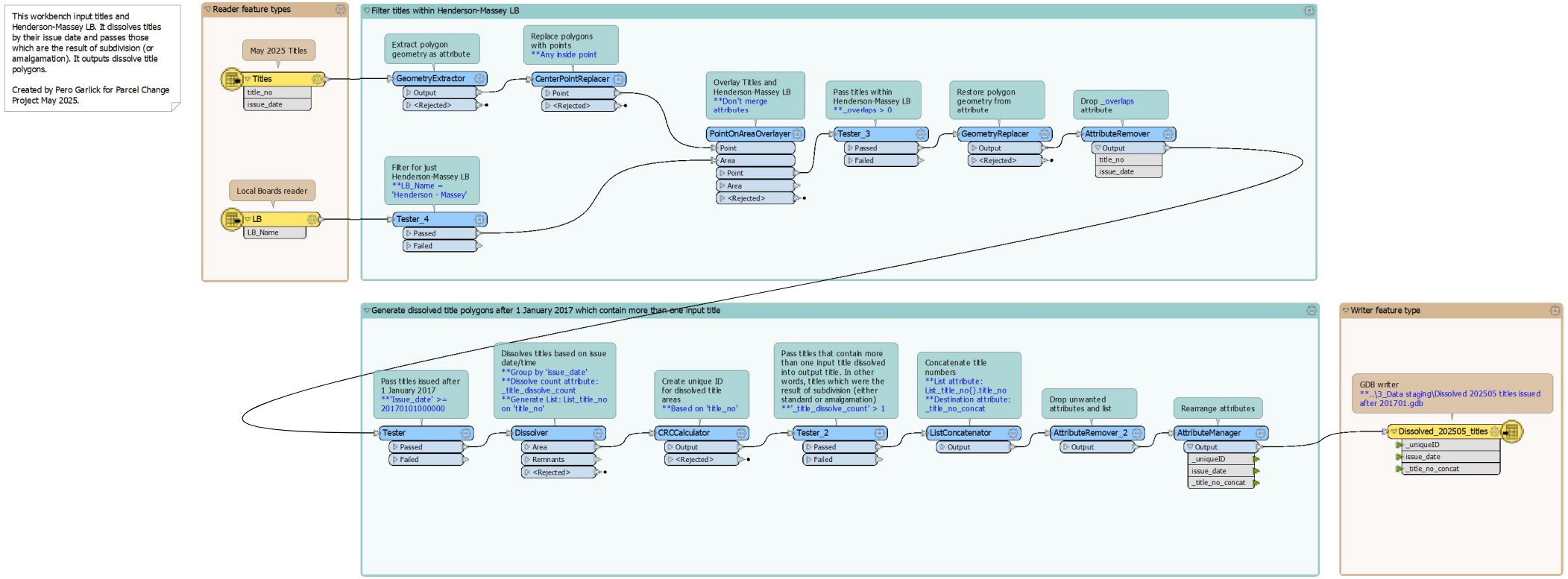
10.0 Appendices

10.1 Appendix A – data sources used in analysis

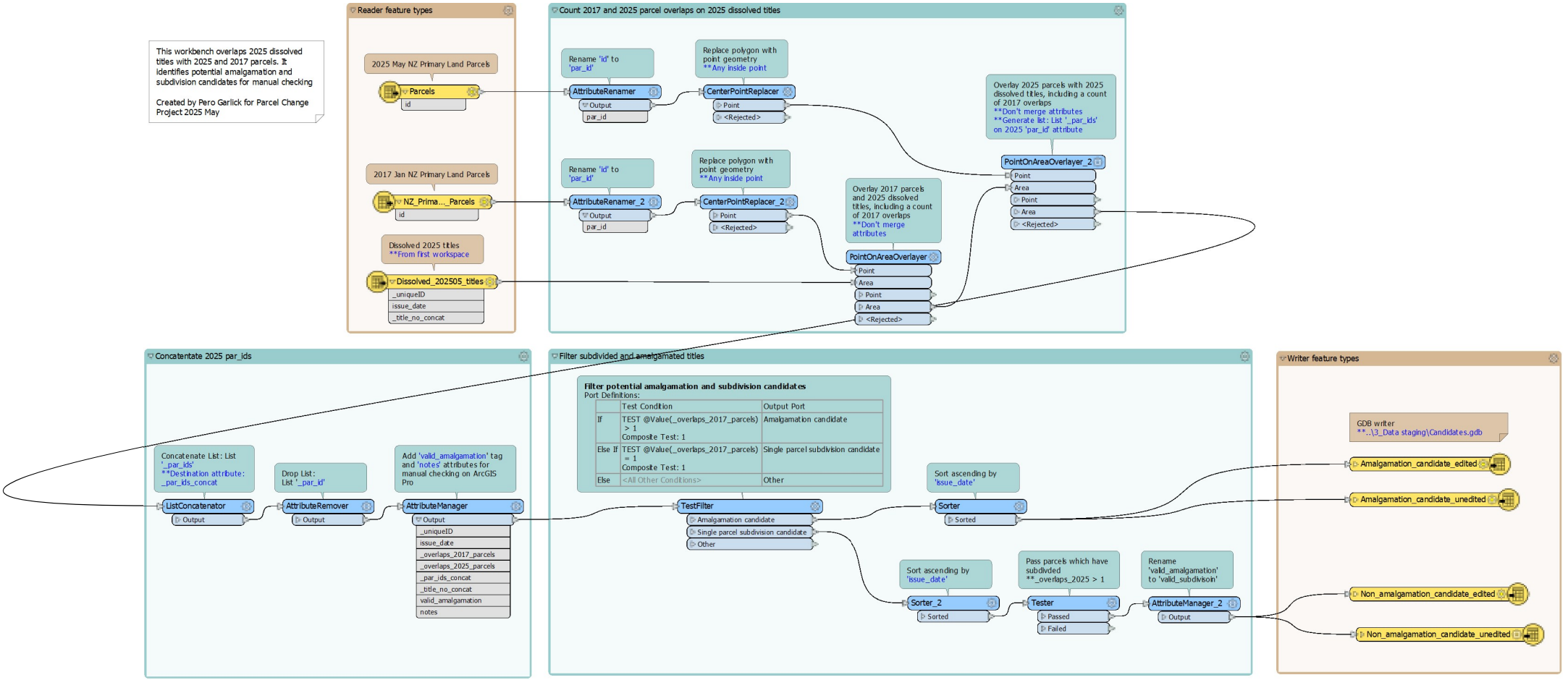
Data	Description	Organisation; source
January 2017 NZ Primary Land Parcels (layer 50823)	Polygon cadastral primary land parcel boundaries	Land Information New Zealand (LINZ); LINZ data service
May 2025 NZ Primary Land Parcels (layer 50823)	Polygon cadastral primary land parcel boundaries	Land Information New Zealand (LINZ); LINZ data service
May 2025 NZ Property Titles (layer 50804)	Polygonal property title boundaries	Land Information New Zealand (LINZ); LINZ data service
May 2025 NZ Property Titles Including Owners (layer 50805)	Polygon property titles boundaries including owner information (note this is a restricted dataset)	Land Information New Zealand (LINZ); LINZ data service
May 2025 Landonline: Title Parcel Association (table 52008)	Table used to associate titles with spatial parcels	Land Information New Zealand (LINZ); LINZ data service
Local board areas	Henderson-Massey Local Board area boundary	Auckland Council
Aerial ortho-imagery	Ortho-rectified aerial imagery of the Auckland urban area. The primary images used were captured in 2008, 2017 and 2025	Auckland Council; SDE and Nearmap Aerial Images; Auckland Council
Zoning information	Extent of Auckland Unitary Plan (Operative in Part) base zone polygons as of May 2025.	Auckland Council; SDE
Building consents	Building consents point data as of March 2025	Stats NZ and Auckland Council; Land Use Research and Evaluation (LURE) team

10.2 Appendix B – FME workbench schematics

..\2_Workspaces\FME\1_Amalgamation identification\1_Extract and dissolve 202505 titles with issue date after 201701.fmw



..\2_Workspaces\FME\1_Amalgamation identification\2_Assign 201701 parcel count to 202505 dissolved titles.fmw



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