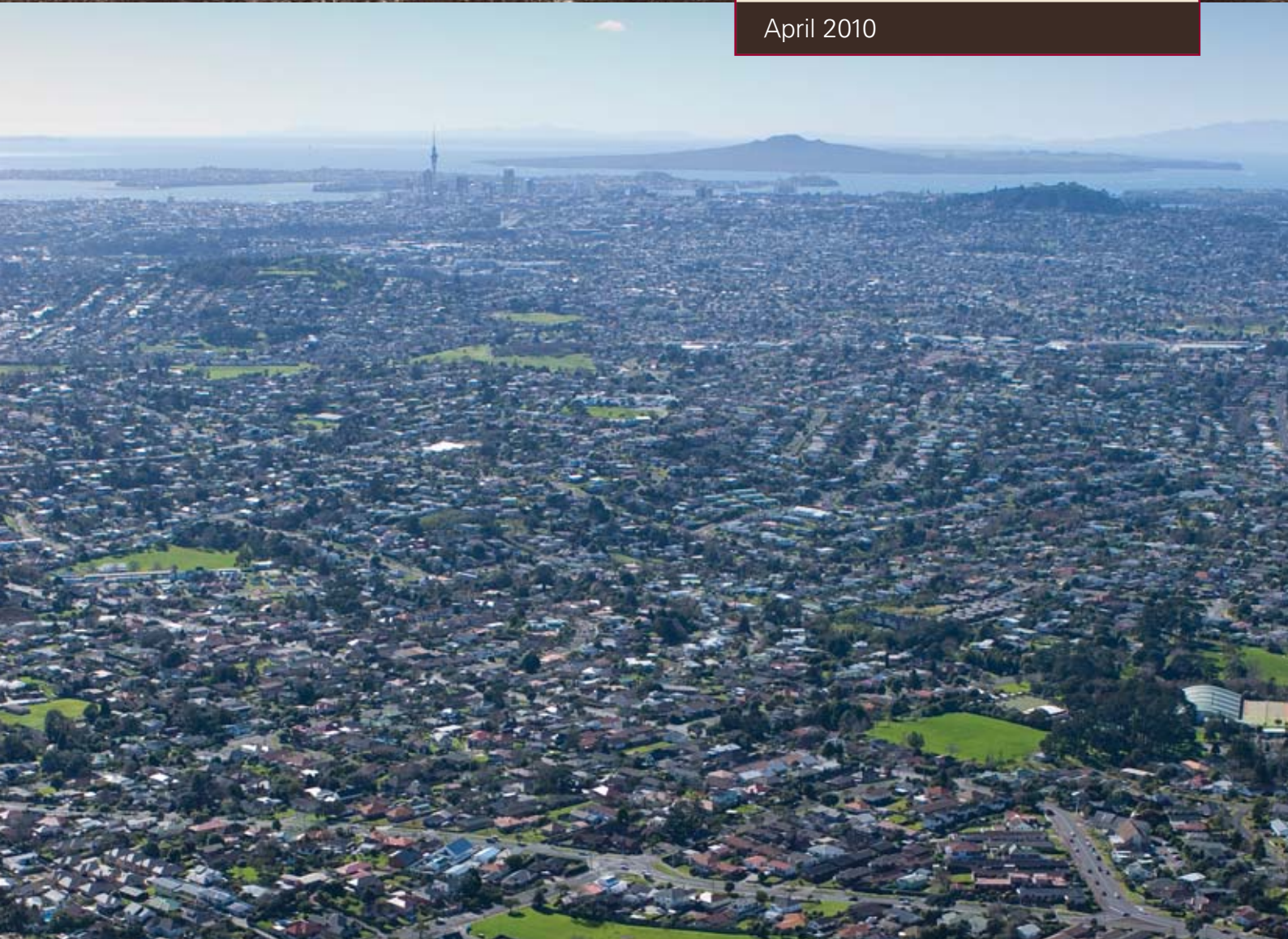


# A brief history of Auckland's urban form

April 2010





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Introduction	3
1840 – 1859: The inaugural years	5
1860 – 1879: Land wars and development of rail lines	7
1880 – 1899: Economic expansion	9
1900 – 1929: Turning into a city	11
1930 – 1949: Emergence of State housing provision	13
1950 – 1969: Major decisions	15
1970 – 1979: Continued outward growth	19
1980 – 1989: Intensification through infill housing	21
1990 – 1999: Strategies for growth	22
2000 – 2009: The new millennium	25
Conclusion	26
References and further reading	27

Front cover, top image: North Shore, Auckland (circa 1860s) artist unknown, Auckland Art Gallery Toi o Tamaki, gift of Marshall Seifert, 1991

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Auckland  
Regional Council  
TE RAUHI TANGA TAIAO



## Introduction

The main feature of human settlement in the Auckland region has been the development of a substantial urban area (the largest in New Zealand) in which approximately 90% of the regional population live. This metropolitan area is located on and around the central isthmus and occupies around 10% of the regional land mass. Home to over 1.4 million people, Auckland is a vibrant centre for trade, commerce, culture and employment.

The shape and nature of Auckland's urban form has been influenced by several dominant geographic factors:

- The Waitemata harbour to the east, and Manukau harbour to the west, are separated by a thin isthmus no more than one kilometre across at its narrowest point. During early European settlement, physical developments originated around the ports and jetties of the harbours, giving rise to a fledging transport network and urban form that has spread north, south and west with time.
- The presence of a large volcanic field scattered across the isthmus – the resultant cones, lakes, lagoons, caldera, islands and depressions have influenced the shape of urban development.
- The Auckland urban area is bordered by two mountain ranges - the Waitakere Ranges to the northwest and the Hunua Ranges to the south-east. These are both catchments that supply water to the region.

These constraints have informed much of the development of Auckland's urban form, as have central and local government policies and plans, and their translation by developers and consumers.

Historically, the development of Auckland's urban form has been characterised by growth in suburbs, sprawl and low density development, accompanied by a dependency on private motor vehicles to get around. Since the turn of the twenty first century however, there has been growth in the proportion of new housing developments that are medium density and apartments, particularly in the Central Business District, but also in fringe areas, as the urban limits are reached and the benefits of mixed-use and intensified development are realised by residents and developers.

## This report

This report outlines the development of Auckland's urban form, from early colonial settlement to the modern Auckland metropolis. It attempts to capture the context and key relevant drivers behind the growth in suburbs, including infrastructure provision, State housing and in later decades, town planning.

The analysis is chronological and discussion is divided into one or two decades at a time.

Each section (with the exception of 1880-1899 and 1990-1999 periods) includes a map that shows growth over time in the built-up areas, as well as the development of the rail and motorway systems. These maps replicate, and continue, a series of maps first included in a 1967 article by G. T. Bloomfield on 'The Growth of Auckland 1840-1966'.<sup>1</sup>

The maps presented in this report were prepared by the Social and Economic Research and Monitoring team at the Auckland Regional Council, using previous maps and aerial photos.

Each section also includes a population figure and an estimated figure for the built up area (in hectares), for a given year within that time period. The estimated built area land measurements were calculated by using the growth maps mentioned above.

Research for this analysis has drawn on a plethora of excellent local histories, and a list of suggested reading is included in the references section at the back of this report.

<sup>1</sup> Bloomfield, G.T. (1967).



## 1840 – 1859: The inaugural years

Auckland was founded on the 18th of September 1840 by the Governor of New Zealand, William Hobson. At that time it was New Zealand's capital.<sup>2</sup> Hobson chose the area and purchased 3,000 acres (12km<sup>2</sup>) from local Māori Tinana and Rewiti Tamaki, for an assortment of blankets, money, trousers, tobacco, gown pieces and hatchets. The boundaries set out in the original Deed of Purchase (20 October 1840) included the coastline from Cox's Creek (Ponsonby) to a point where Brighton Road (Parnell) meets the waterfront and inland to the summit of Mt Eden and back to Cox's Creek.<sup>3</sup> It included Mt. Eden (Mangawhau), the highest volcanic cone (643 feet) on the isthmus.

Rapid progress was made within a few months of the legal foundation of the city. Felton Mathew, the Surveyor-General, drew up a plan for the capital and the first land sales were held in April 1841, only six months after the first landing at Point Britomart.<sup>4</sup> The final result ended up following a more traditional grid pattern however.

Land sales started in 1841, and people began to live in and around what was then referred to as Commercial Bay (at the base of Queen Street). This area served as the prime source of livelihood, directly or indirectly, for the majority of dwellers. Commercial activities were located to the east of Queen Street along Shortland Crescent (now known as Shortland Street) to Point Britomart, the original shoreline of Commercial Bay.

Over the next two decades the areas of Freemans Bay and Mechanics Bay became established. Land reclamation began in 1859 from Shortland Street to the foot of Franklin Road in Freemans Bay.

By the late 1840s, road infrastructure had been laid over most of the isthmus, but elsewhere navigable waterways, assisted by the portages at Riverhead, Otahuhu and Waiuku, remained the most important links between Auckland and its outlying settlements.<sup>5</sup>

In 1841, New Zealand's first British fort was established on Point Britomart, on land previously occupied by a Māori pa (fortified place). The fort was established to control Auckland's harbour entrance and bring order to the growing settlement. In the 1860s, during the New Zealand Wars, the barracks at Fort Britomart were used to house 10,000 troops. Point Britomart was quarried in the 1870s and 1880s in order to produce fill for land reclamation around Mechanics Bay.

### Population

2,895 people (1842)

### Built Area

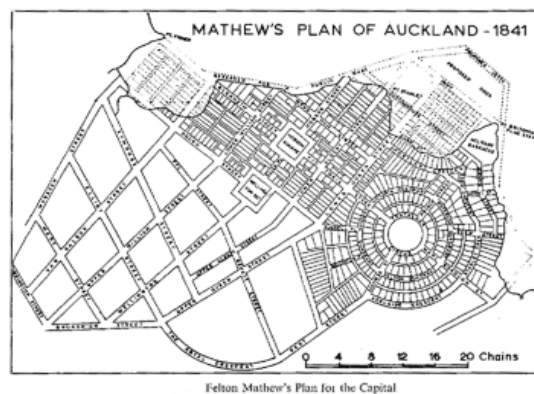
33.2 hectares (1842)

### Density

87 people per hectare

### Summary

- Auckland founded as New Zealand's capital in 1840.
- Township was located around Commercial Bay and small settlement at Onehunga also.
- Freemans Bay and Mechanics Bay became established over the next decade.



Felton Mathew's original plan for the Capital



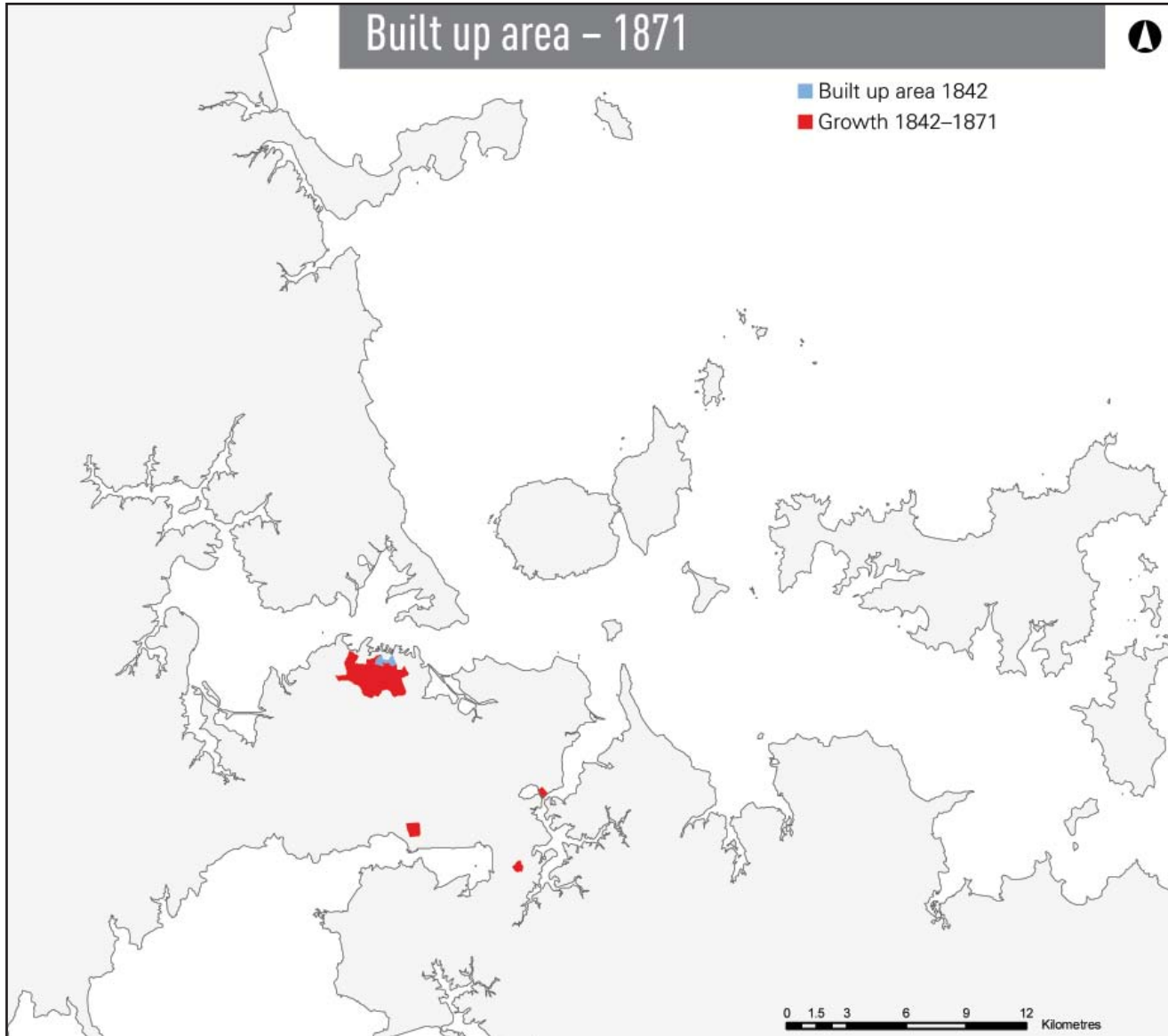
Point Britomart prior to excavation

<sup>2</sup> Auckland was New Zealand's capital until 1865 when this title was transferred to Wellington.

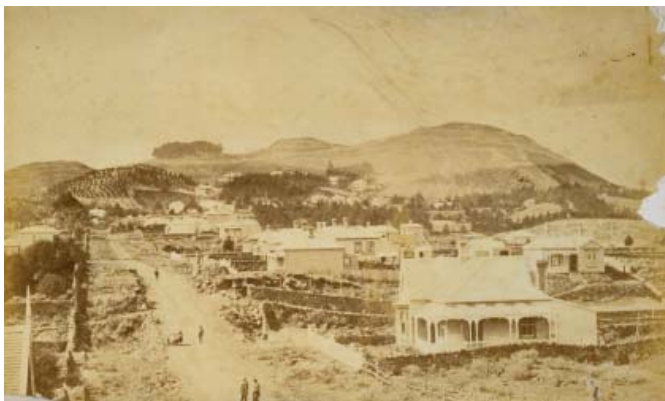
<sup>3</sup> Bush (1971), page 22.

<sup>4</sup> Bloomfield, G.T. (1967), page 3.

<sup>5</sup> Bloomfield, G.T. (1967), page 7.



Mount Eden Road, Auckland (circa 1865) John Kinder



Auckland Art Gallery Toi o Tamaki, purchased 1983

One Tree Hill and Epsom, from Mount Eden, Auckland  
(date unknown) John Kinder



Auckland Art Gallery Toi o Tamaki, purchased 1983

## 1860 – 1879:

### Land wars and development of rail lines

In the early 1860s, Māori resentment over land losses and Auckland's growth led to Pakeha fears that Auckland was vulnerable to attack from Waikato to the south. The city's garrison was enlarged by 12,500 British troops and military settlers. Preparations for war began with the construction of the Great South Road and a chain of military redoubts through Franklin – later the foundation of farming communities.<sup>6</sup>

Development of the southern part of the region continued once the hostilities settled in 1864. By that time the electric telegraph had been introduced and regular horse bus and coach services were operative. This facilitated growth in the outlying settlements of the isthmus, such as the townships of Pukekohe, Bombay and Tuakau.

There were major flows of settlers from the British Isles to the colony during this time, encouraged by an active recruitment drive that included free or assisted passage. While some settled in the township, many set to work clearing sections and helping to establish new outlying townships and farming areas. For example, the Bombay Hills area received its name in 1866 from its settlement by immigrants who arrived on the 'Bombay' ship.

The township of Howick was established in 1874 when three companies of the Royal New Zealand Fencibles were assigned to defence posts. They were retired soldiers, mostly Irish, enlisted to serve for seven years in exchange for a cottage and an acre of land. Howick was the largest of the four Fencible settlements, with 804 people in three companies by 1884.<sup>7</sup> Other settlements were located at Onehunga, Panmure and

Otahuhu, 'forming a line from east to west south of the town'.<sup>8</sup>

After a period of economic decline following the resolution of the Waikato Land Wars and the loss of capital status to Wellington in 1865, Auckland's economy boomed again from 1870. This was primarily due to the discovery of gold at Thames and Waihi in the Coromandel Peninsula, but also to a booming timber export industry flowing through the ports of Auckland. Auckland's agricultural base also strengthened and the economy became based on industries such as timber milling, gum digging and brick-making. The city grew as a commercial centre and housing continued to be developed around the city centre.<sup>9</sup>

From 1870, railway links were laid to Onehunga, Helensville and the Waikato, and the first train ran in Auckland in 1872 on the Auckland – Mercer line.

In 1869, water began being piped from the Auckland Domain springs into the town to facilitate growth, and settlement continued south towards Mt Eden, Otahuhu and Panmure.

#### Population

12,423 people (1864)

#### Built Area

565 hectares (1871)

#### Density

22 people per hectare

#### Summary

- Howick, Onehunga, Otahuhu and Panmure established as Fencible settlements.
- Railway to Onehunga and Helensville constructed.
- Townships and outlying settlements included Puhoi, Helensville, New Lynn, Tuakau, Pukekohe and Bombay.

North Shore, Auckland (circa 1860s) artist unknown



Auckland Art Gallery Toi o Tamaki, gift of Marshall Seifert, 1991

<sup>6</sup> Ministry for Culture and Heritage (2008) <http://www.teara.govt.nz/en/auckland-region/7>.

<sup>7</sup> Ministry for Culture and Heritage (2008) <http://www.teara.govt.nz/en/auckland-places/15>.

<sup>8</sup> McLachlan, G. (2008), Page 120.

<sup>9</sup> Ministry for Culture and Heritage (2008): <http://www.teara.govt.nz/en/auckland-region/8>.



Plan of Henderson Park (1883)

Sir George Grey Special Collections, Auckland City  
Libraries (N.Z.) NZ Map 4497-22.



Auckland Harbour from Mt Eden (circa  
1898) George Valentine

Auckland Art Gallery Toi o Tamaki, The Ilene and  
Laurence Dakin Bequest, purchased 1999

## 1880 – 1899: Economic expansion

Growth in the commercial services sector as well as large-scale manufacturing broadened the region's economy during this period. Residential developments formed around commercial activity and available transport links. Working-class settlements grew on the town fringes to serve new industries, such as the railway workshops in Newmarket and brickworks and potteries in New Lynn.<sup>10</sup>

The main forms of public transport consisted of rail, horse-drawn trams and ferries. These transport innovations permitted a closer integration of the more outlying townships with the centre.<sup>11</sup>

In 1884, the first horse-drawn tram operated between Queen Street and Ponsonby. Horse-drawn trams became a common form of public transport and an extensive network radiated along major roads such as Dominion, Mt Eden and Manukau Roads.

The rail line also fostered the growth of smaller outlying towns of Onewhunga, Otahuhu and small settlements to the south such as Papakura and Pukekohe. To the west, rail links encouraged settlements beside the line at Henderson, New Lynn and Glen Eden.

At this time, the main built area comprised of what is now the Central Business District (CBD) and the adjacent suburbs of Karangahape, Grafton, Eden Terrace, Newmarket, as well as parts of Ponsonby and Parnell.

By 1890, new residential areas of Surrey Hills, Grey Lynn, Mt Albert, Mt Eden and Remuera had been subdivided; however, many of the vacant sections were not built on until the early 1920s.<sup>12</sup>

The provision of a regular steam ferry service across the Waitemata Harbour by the Devonport Steam Ferry Company in 1881 encouraged suburban growth in Devonport, Takapuna, Northcote and Birkenhead, as well as the development of a road north.<sup>13</sup> The establishment of the Colonial Sugar Refining Company in 1884 also boosted suburban growth in the Birkenhead / Northcote area.

Onewhunga was the largest outlying settlement followed by Otahuhu and Papakura in the south and Howick to the east. Several smaller settlements were located close to the railway at Avondale, Mount Albert and Panmure. Further to the south, Papatoetoe, Manurewa and Papakura developed along Great South Road.

Water supply continued to be sourced locally from private springs, until demand exceeded supply. In 1877, Western Springs began supplying water to the town while Lake Pupuke supplied Devonport and the North Shore from 1894.

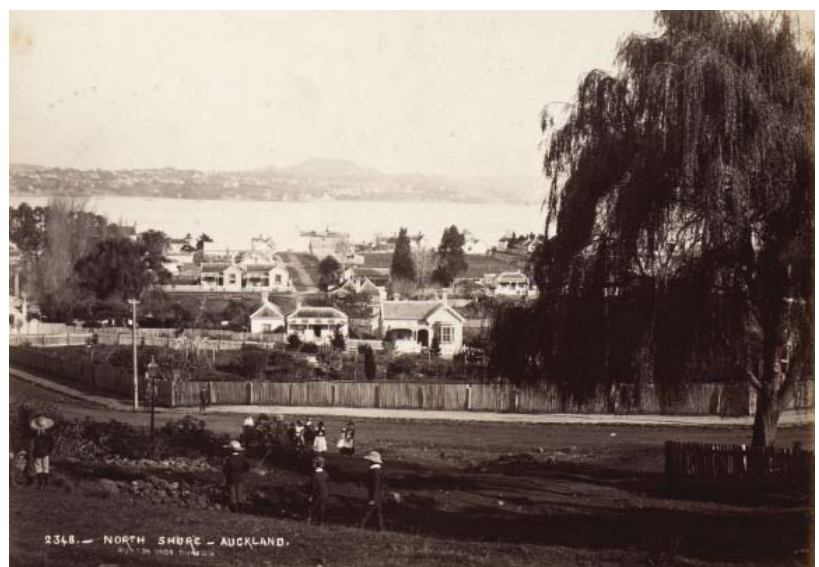
### Population

57,616 people (1896)

### Summary

- This was a time of economic expansion and residential growth.
- Regular ferry services began operating across the Waitemata Harbour in 1881 encouraging growth in the North Shore.
- Establishment of residential settlements around manufacturing centres such as Birkenhead and New Lynn.
- Onewhunga was the largest outlying township.

North Shore, Auckland (1898-98) Alfred Burton



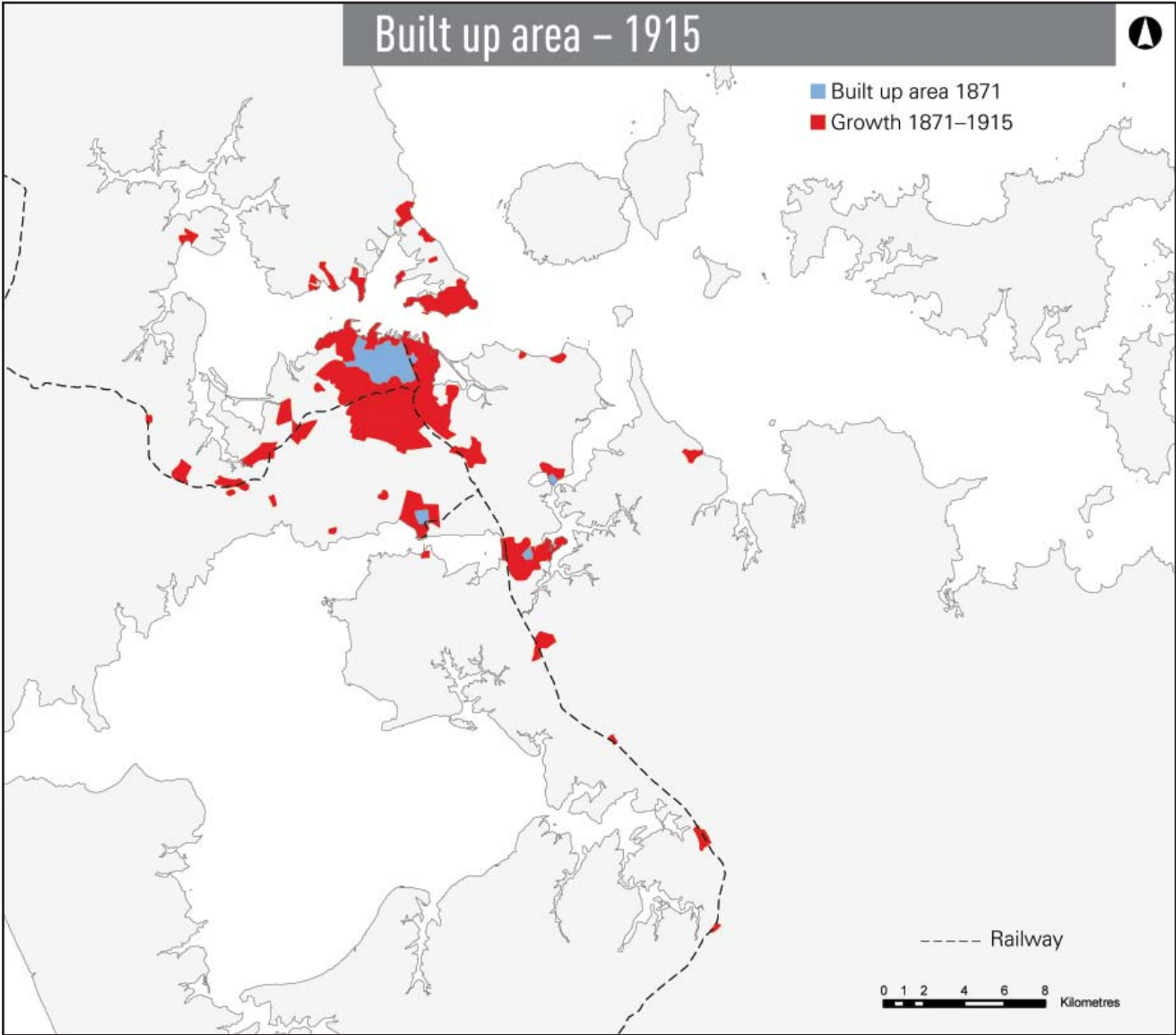
Auckland Art Gallery Toi o Tamaki, The Ilene and Laurence Dakin Bequest, purchased 1999

<sup>10</sup> Ministry for Culture and Heritage (2008): <http://www.teara.govt.nz/Places/Auckland/Auckland/5/en>

<sup>11</sup> Bloomfield, G.T. (1967), page 10.

<sup>12</sup> Bloomfield, G.T. (1967), *ibid.*

<sup>13</sup> Bloomfield, G.T. (1967), *ibid.*



Remuera (1904) Henry Winkelmann



Sir George Grey Special Collections, Auckland City Libraries (N.Z.) 1-W1140

Looking south from One Tree Hill (1926) Henry Winkelmann



Sir George Grey Special Collections, Auckland City Libraries (N.Z.) 1-W763



## 1900 – 1929: Turning into a city

**T**he Auckland urban form changed dramatically in the first two decades of the 20th century.

By the turn of the century, dairy farming had become the new source of wealth in New Zealand, and Auckland thrived as dairying expanded throughout the periphery. Meat and dairy produce was processed in factories at Penrose and Otahuhu, and then exported from the ports of Onehunga and Commercial Bay.

Auckland became New Zealand's largest industrial centre by the end of the first decade. Brick and tile manufacturing was clustered around New Lynn, and the areas around Henderson, Oratia and Glen Eden were orchards. During this period of economic growth, the Railways Department issued 'workmen's tickets' at low rates to stimulate settlements in the outer suburbs served by the railway north, west and south of the town centre.

Construction of an electric tramway system began in 1901 which became the main instrument for Auckland's metropolitan expansion into the early 1920s. Electric tramways serviced major routes such as New North, Dominion, Mt Eden and Manukau Roads, and lead to significant growth in those suburbs serviced by the tramlines. Motorcars and buses also started to emerge in the first decade of the 20th century, but were not as popular as rail, tram and ferry links, due to cost and availability.

Water supply was a localised service with the supply areas being close to the demand. Western Springs provided water for the city from 1877 to 1906; Lake Pupuke provided Devonport and the North Shore from 1894 to 1941, and springs elsewhere provided local

supplies until the growth of demand exceeded supplies or when pollution from nearby settlement (as in Newton Gully) rendered the water unsafe. The Waitakeres were first developed as a catchment area in 1902, and gradually replaced all the nearer sources.<sup>14</sup>

During this time, middle-class families left the run-down and crowded inner-city districts for new, more spacious neighbourhoods on the edge of town. The more affluent headed for the inner eastern suburbs of Epsom and Remuera, and the North Shore; middle-class earners built new suburbs to the south and west, such as Mt Albert. The poor remained in the central city.<sup>15, 16</sup>

Subdivided land within the isthmus became very popular. For example, the suburb of Mount Albert grew from a population of 2,085 in 1901 to 17,516 people by 1926, and Remuera grew from 2,186 people to 10,433 people during the same period. Other areas that developed during this period include Point Chevalier and Westmere.

Housing was predominantly stand-alone homes, situated on varying sized lots depending on individual affluence or the style of home. Villas were a common aspect of this period, although Californian style bungalows and Spanish mission style housing became popular during the 1920s.

### Population

133,712 people (1916)

### Built Area

5039 hectares (1915)

### Density

27 people per hectare

### Summary

- Development of suburbs continued right across the isthmus, encouraged in large part by the provision of electric tramways.
- Establishment of residential settlements around manufacturing centres such as Birkenhead and Grey Lynn.
- Onehunga was the largest outlying township.

Kingsland (1924) James Richardson



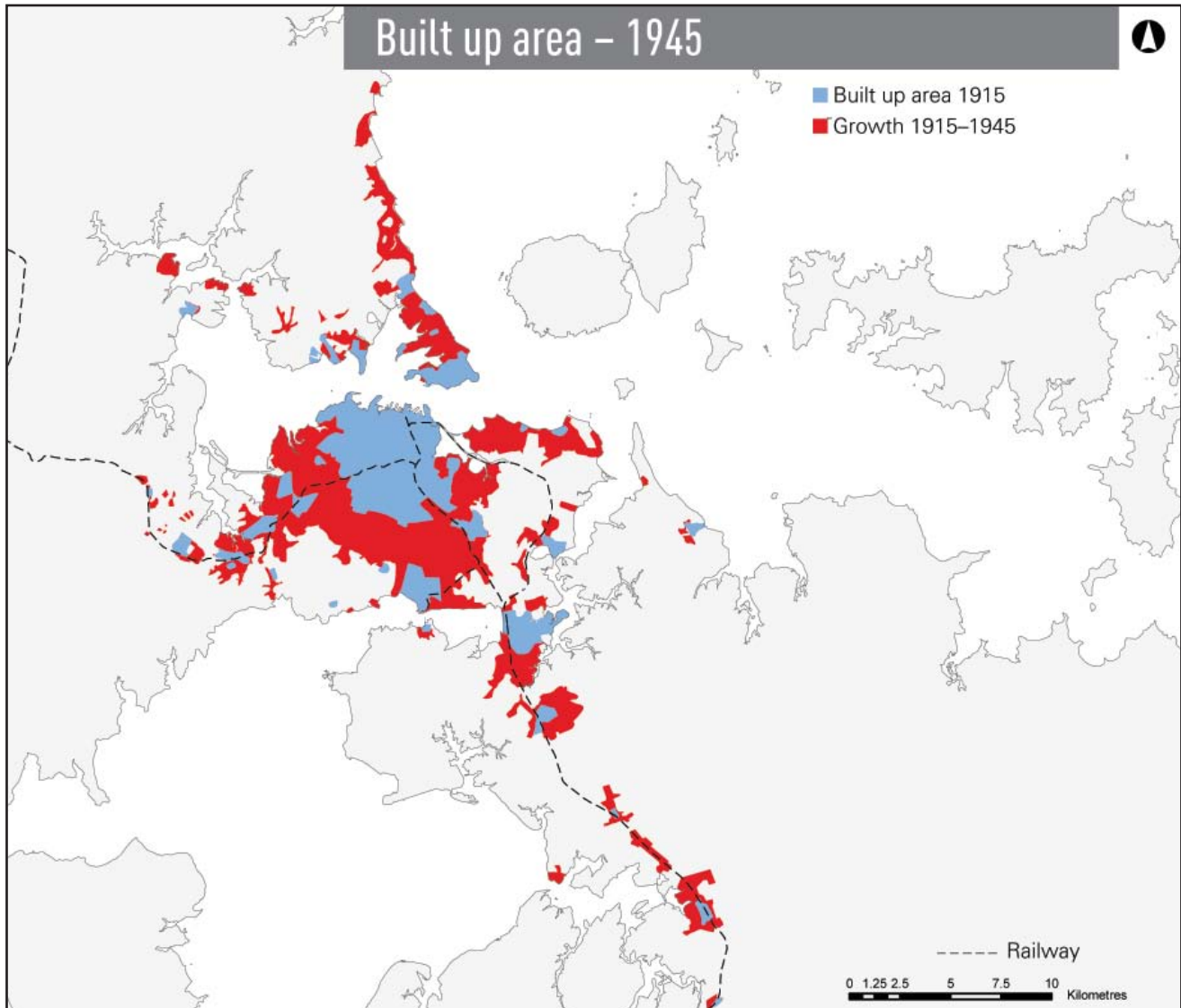
Sir George Grey Special Collections, Auckland City Libraries (N.Z.) 4-4476

<sup>14</sup> Bloomfield, G.T. (1967), page 12.

<sup>15</sup> Ministry for Culture and Heritage (2008) <http://www.teara.govt.nz/en/auckland-places/10>.

<sup>16</sup> In 1905, alarmed by mounting reports of extortionate rents and squalid living conditions in New Zealand's inner cities, the Liberal Government passed the Worker's Dwelling Act. Its purpose was to provide working class families with affordable suburban state housing.

This was the start of state housing developments. It was another two decades before the programme really took off however, with the election of the Labour government in 1935. Retrieved 20 January 2010 from AGM online <http://www.agm.co.nz/index.html?category=33&id=157>



Looking east from One Tree Hill (circa 1930s) Bruce Gamble



Four new houses (1940) Clifton Firth



Sir George Grey Special Collections, Auckland City Libraries (N.Z.) 34-BON-1

## 1930 – 1949: Emergence of State housing provision

This period includes the national and international watershed events of the economic depression of the 1930s (following the boom of the 1920s), subsequent renewal and growth, as well as World War Two (1939 to 1945). Auckland population growth slowed during the 'Great Depression' as large scale urban - rural drift took place but the growth rate sharply increased again as the direct effects of the economic depression started to wear off.

Suburbanisation became more established during the 1930s right across the Auckland area, as a result of new roads, tramlines and infrastructure, and increased state intervention in the provision of housing.

Suburban development continued across a 'wide arc' along the isthmus from Point Chevalier and Westmere in the west to Meadowbank in the east, as well as in Kohimarama and St Heliers to the east following the opening of Tamaki Drive in 1932 and in Papatoetoe, Henderson and Takapuna.<sup>17</sup> These new suburbs were accessible by car and electric tram and as they grew, so did the establishment of new suburban shopping centres along the main roads.

Car ownership and the construction of all-weather bitumen highways became a significant factor of the suburban expansion during 1930s. Most of the main highways had been surfaced by the 1930s, making road access in and out of Auckland much easier.

During the Great Depression, relief workers (state workers on a small wage) helped to build Auckland's infrastructure including Scenic Drive in the Waitakere Ranges.

Holiday settlements also began popping up in the Waitakere Ranges, along the shores of the Manukau Harbour, and around the Hauraki Gulf. Orewa and the Whangaparaoa Peninsula were also developed as tourist centres during this period.

A new type of suburban growth, which began in the mid 1930s, was the development of the state housing areas. The reduction in new house building after 1929, due to lack of loan finances during the Great Depression, together with the deteriorating condition of many inner-city properties, especially in Freemans Bay, meant that active steps by the government were required to improve living conditions. State houses were first established at a model estate in Orakei (1937) and continued to be built in an increasing scale in Meadowbank (1939), Waterview (1944-7) and Mt. Roskill (1945).<sup>18</sup> Inner-city apartment blocks were developed in the 1940s, including flats on Symonds Street and Greys Avenue. However the main focus of the first Labour Government's state housing programme was directed towards the construction of single-unit suburban homes, which were considered more suitable for families.

Restrictions on imports encouraged local manufacturing and new industries were being developed (for example tyre manufacturing). Manufacturing industries relocated outwards into suburban locations in the 1930s, particularly around Penrose, Otahuhu and Mt Wellington, which quickly transformed into an industrial area due to its proximity to rail and main roads.

Electricity generation was a significant development for this period. Previously,

### Population

251,667 people (1945)

### Built Area

13,642 hectares (1945)

### Density

18 people per hectare

### Summary

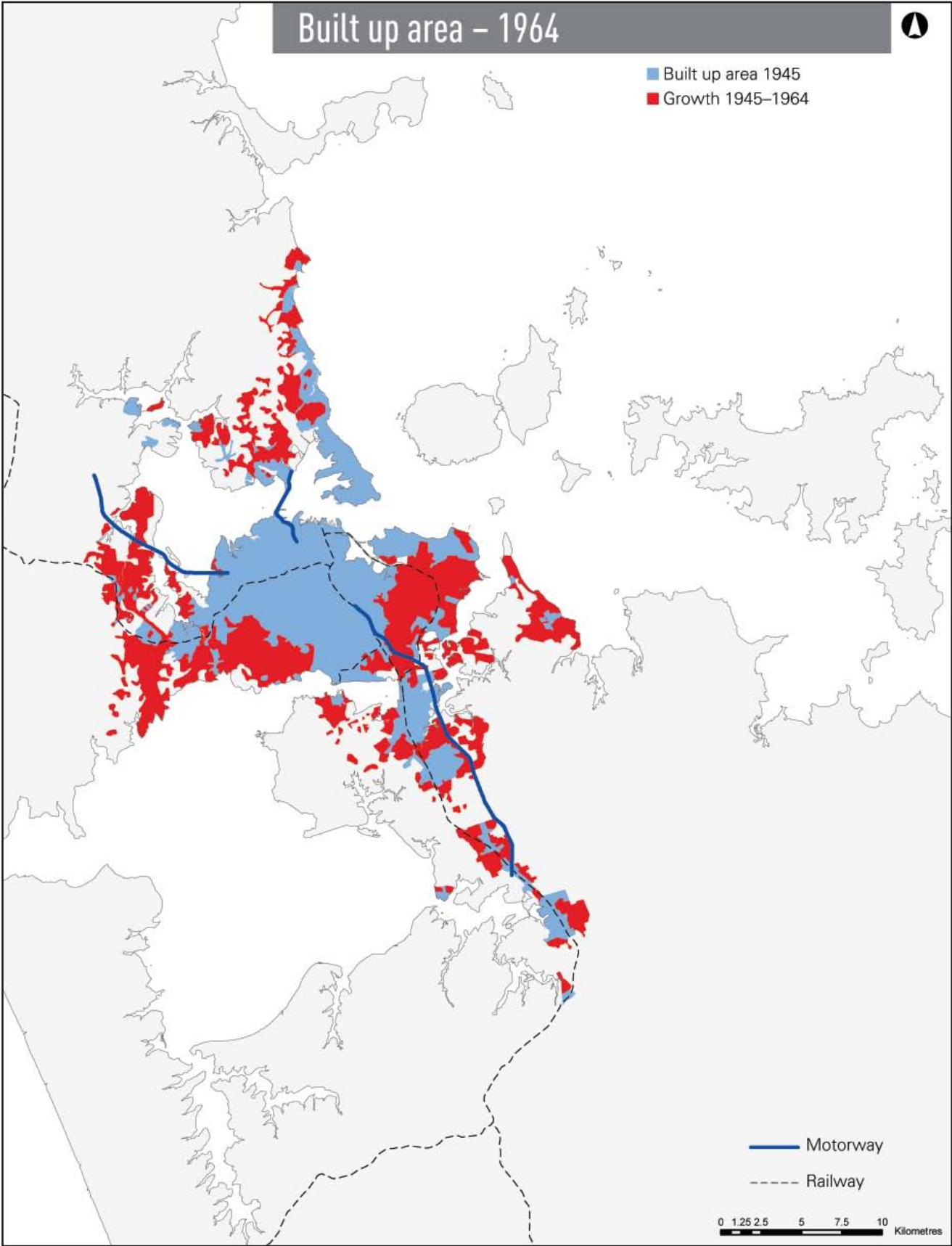
- State provision of housing with new developments first at Orakei, later including Meadowbank, Waterview and Mt Roskill.
- The completion of Tamaki Drive opened up suburban expansion in eastern suburbs, for example Kohimarama, and St. Heliers.
- By the late 1940s, electricity was supplied throughout the main Auckland area.

electricity had been limited to the thermal stations at Kings Wharf and a small plant in Devonport, with supply constrained to commercial use and tramways. By the late 1940s, electricity was being generated mostly at hydroelectric stations situated along the Waikato River and was being consumed throughout the Auckland area.<sup>19</sup>

<sup>17</sup> Bloomfield, G.T. (1967), page 14.

<sup>18</sup> Bloomfield, G.T. (1967), page 16.

<sup>19</sup> Bloomfield, G.T., *ibid*



## 1950 – 1969: Major decisions

The 1950s were a period of 'major decision-making', when Auckland committed itself to being a large city and 'the balance between public and private transport was tipped in favour of the car'.<sup>20</sup> This decision to base Auckland's transport system on motorways (rather than the development of a comprehensive public transport system) had a fundamental influence on the shape and the nature of the urban area. The increasing reliance on personal vehicles, along with lenient Government lending policies, allowed people to fulfil their desire of detached houses on large lots leading to rapid suburban expansion and a dispersed urban form.

A regional planning decision of immense significance was the favouring of the development of a motorway system. The 'Master Transportation Plan' for Metropolitan Auckland, prepared by the Auckland Regional Planning Authority in 1955, proposed developing a radial motorway system (largely based on American models) because of the already dispersed nature of activities in the region and information that it would provide greater benefits than the alternatives. The technical advisory board asserted:

"The form and structure of metropolitan Auckland through the years has been largely determined by developments in urban areas and suburban transportation. During the last 25 years, the overall effects of motor transportation has so radically changed the pattern that Auckland is one of the most dispersed cities in the world. The individual has been freed from absolute dependence on tramways and railways with their fixed inflexible routes. Local transport of goods has become fast, cheap, and flexible. A common motor transportation system has integrated outer areas and extended the radius of influence of Auckland."

Construction began on the Auckland motorway network in the early 1950s and was extended after 1955 as increased funding became available through the National Roads Board. The first section to be completed was the 2.25 mile stretch between Ellerslie and Mount Wellington in July 1953. At the same time, work was underway on a five mile section of the north-western motorway between Point Chevalier and Lincoln Bridge (Henderson). By 1955, the five-mile section of the north-western motorway and a further six miles of the southern motorway from Mount Wellington to Wiri were also opened.<sup>21</sup>

Such connectedness meant that all sectors of the urban area experienced significant suburban development including Te Atatu, Otara and Manurewa. The rapid expansion of the motorway network, combined with a lack of emphasis placed on public transport, was the beginning of a soon-to-be-dispersed urban area. Furthermore, patterns of development changed from rectangular street networks and linear shopping centres with a pedestrian focus to crescents and cul-de-sacs, orientated towards the private motor vehicle.

### Population

535,167 people (1966)

### Built Area

26,793 hectares (1964)

### Density

20 people per hectare

### Summary

- Regional planning started to develop, and the strategy of setting urban limits first appeared in 1951.
- Development of the motorway system encouraged suburban growth, as well as a reliance on private motor vehicle.
- Auckland Harbour Bridge opened in 1959 creating high growth in the North Shore.
- Howick / Pakuranga area also experienced high growth.

### Construction of the Auckland Harbour Bridge (October 1958)



N0116017. Photographer P.H.G. LaVie. Copyright Elizabeth Lancaster. North Shore Libraries Photograph Archive

<sup>20</sup> Regional Growth Forum (1997).

<sup>21</sup> National Roads Board (1973) Auckland Motorways information leaflet. Retrieved from <http://www.petrotax.org.nz/PDF/AucklandMotorways.PDF>

Flats and Couple, Panmure, Auckland (1969) John Fields



Auckland Art Gallery Toi o Tamaki, purchased with assistance from the Queen Elizabeth II Arts Council of New Zealand, 1976

Glenfield (1963) Martyn Uren



T6297. Photographer Martyn Uren. Copyright Barfoot and Thompson. North Shore Libraries Photograph Archive

Another significant event during this time was the opening of the Harbour Bridge in 1959 (built entirely for motor vehicular travel, and with no provision for pedestrians, cyclists or trains). New suburbs emerged on the North Shore through the 1960s such as Birkdale, Beachhaven and Glenfield. This high growth of the North Shore caused traffic chaos and congestion on the small section of the motorway between

Fanshawe Street and Northcote Road, and the four lane harbour bridge soon became inadequate to support the traffic flow. Four new lanes were added in 1969.<sup>22</sup>

In addition to transport decisions, the government continued to build settlements (eg at Tamaki) and offered loans which encouraged further development in the outer suburbs. Another State initiative was the Group Building Scheme whereby the government guaranteed to buy houses not sold by private builders. This initiative gave rise to a number of housing firms in the 1960s and encouraged further urban development. For example, Fletcher Trust helped construct the new suburb of Pakuranga where 1,000 residential sections were developed in 1964.<sup>23</sup>

The Pakuranga–Howick area experienced high growth in the 1950s and 1960s. Between 1950 and 1955, Panmure transformed from a small village with three or four shops and a hotel into a busy suburban shopping centre as the West Tamaki housing estate was developed. Glen Innes (1959/60), New Lynn (1963), and Pakuranga (1965) were examples of new regional shopping centres at the time.

Although there was population gain in the outer parts of the urban area between the mid 1950s and early 1960s, the central city area suffered considerable decline. Dilapidated conditions found in the inner city, the outward movement of businesses and industries, and the emergence of the motorway network facilitated this movement. Factories moved from the inner city to cheaper land in west and south Auckland, and suburban shopping malls brought the closure of downtown department stores.<sup>24</sup>

<sup>22</sup> Retrieved from Auckland Motorways website: <http://www.aucklandmotorways.co.nz/northern/ahc.html>

<sup>23</sup> McKinnon, M. et.al. (1997). Plate 75

<sup>24</sup> Ministry of Culture and Heritage (2008) <http://www.teara.govt.nz/en/auckland-places/10>

Typical state house of the 1950s.



Auckland Regional Council

Typical 'sausage flat' design of the 1960s



Auckland Regional Council

Growth of infrastructure was necessary in order to service the needs of a growing population. Two dams in the Hunua Ranges (Cossey's Creek Dam 1955, Mangatawhiri Dam 1965) were commissioned in order to support the Waitakere Ranges catchment, and sewage treatment plants at Mangere (1960), and at Albany (1962) were constructed in order to meet demand. Electricity generation was improved to meet the increasing demands of the city, which were only being met partially by hydroelectric dams along the Waikato River. Expansion included a coal fired station at Meremere.

Plans to consolidate urban growth emerged at this time. The concept of an 'urban fence' was introduced in 1951 through the 'Outline Development Plan' for Auckland, prepared by the Auckland Metropolitan Planning Organisation. The plan also proposed a green belt of five mile depth from the boundary of the main urban area, consisting of Okura, Albany, Greenhithe to the north and Pakuranga, Wiri and East Tamaki to the south.

The 1961 'Regional Development Plan: Regional Growth' prepared by the Auckland Regional Planning Authority envisaged the creation of an 'orderly,

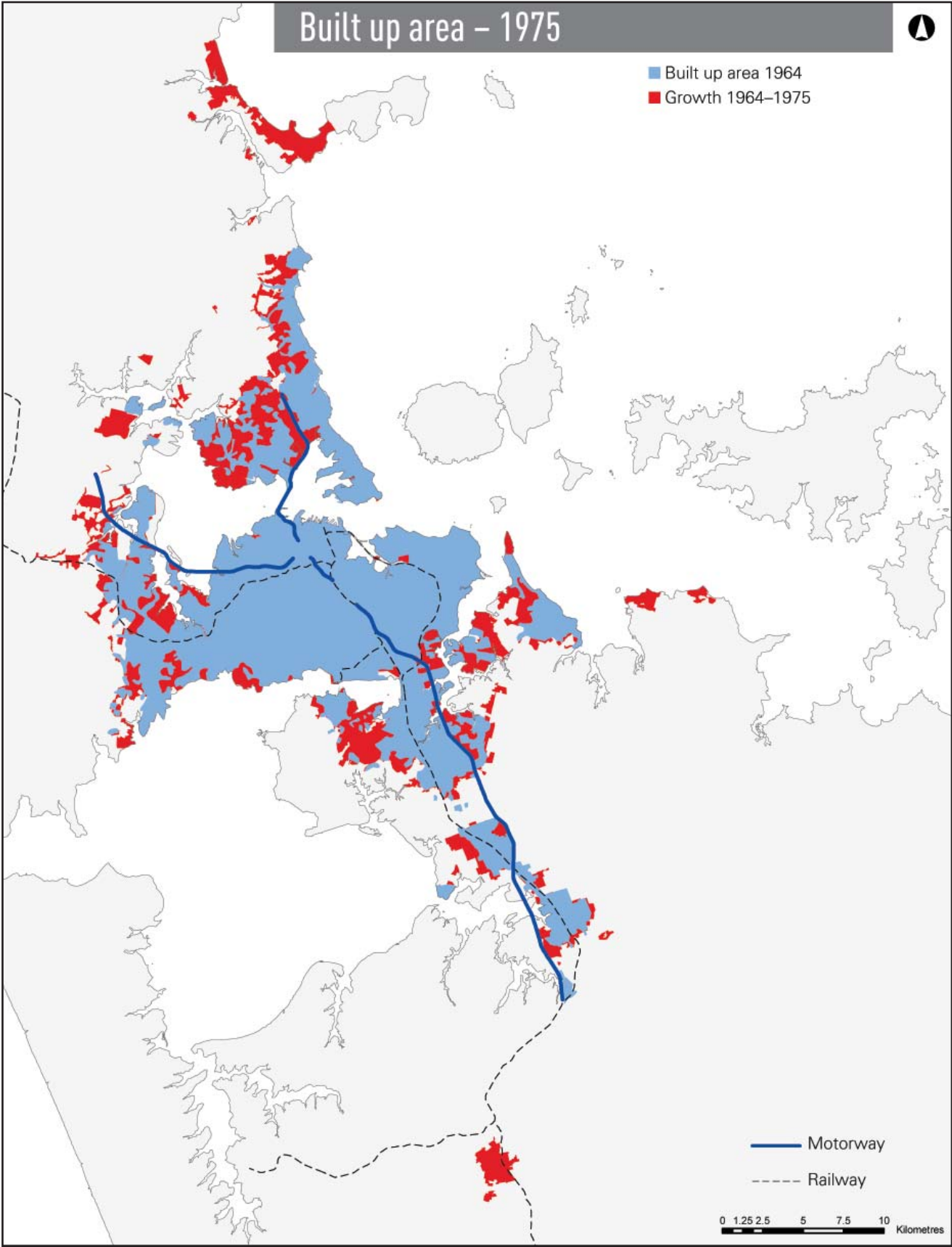
coherent, decentralised metropolitan region comprising a main or parent area surrounded by a cluster of communities. Each of these parent units and cluster communities would have, to varying degrees, its own decentralised functions and would rely on the one metropolitan core for the true metropolitan functions and services'.<sup>25</sup> Key points of this 'cluster' urban form were:

- Controlling growth on the urban fringe within a determined long-term boundary,
- Providing for further growth in urban units physically and permanently separated from the main city centre.

In 1967, as a part of the Regional Master Plan Preliminary Report series prepared by the Auckland Regional Authority, two plans were prepared for the purpose of looking at the future direction, scale and form of the urban area to accommodate the projected population increases in the next 20-30 years.<sup>26</sup> The Regional Master Plan which followed the preliminary report envisaged the development of Orewa, Okura, Long Bay, Waimauku, Kumeu, Whitford and Beachlands within a 20 to 30 year timeframe.

<sup>25</sup> Regional Growth Forum (1997), page 26

<sup>26</sup> Auckland Regional Master Plan: Preliminary Report Series (1967) Appendix A.



## 1970 – 1979: Continued outward growth

Auckland now had an extensive motorway network which facilitated growth to the west, north and south. Work began on the Central Junction (known colloquially as 'Spaghetti Junction') in the 1970s and construction continued on the motorway system which, combined with continued state housing development fostered the development of new suburbs and industrial areas.

New housing developments appeared in East Tamaki, Massey East, Te Atatu, Torbay and Glenfield, a direct result of the recently completed motorway network. Orewa and Whangaparaoa Peninsula also experienced considerable growth during this period.

State housing had a strong influence on growth of the urban form, especially in south Auckland. By the early 1970s, the proportion of state houses in Otara was over 40%, and almost all the houses in Otara were built within 12 years from 1971 with 5,000 dwellings on 1,200 acres. Other state housing developments were located at Mangere Bridge and Papatoetoe.

By the early 1970s, there was a growing awareness among town planners of the problems of 'urban sprawl', and regional planning focused on developing a compact urban form. The first Regional Planning Scheme for Auckland became operative in 1974. This provided a broad-scale vision of the distribution of different activities throughout the region, while detailed planning was left to local councils. The main proposal of the scheme was that:

"The direction of urban growth is to be guided in such a way that an urban form following a 'multi-linear' pattern evolves – that is growth will be related to the main transportation corridors and coastlines"

The next year, in 1975, the Auckland Regional Authority conducted a study titled 'Alternatives for Future Regional Growth'. This was a progress report on the nature and direction of future urban growth within the Auckland region. This report concluded that:

- Further urban development was tightly constrained in the south-west and south,
- Land to the east of south Auckland, the north, and the west was the least constrained,
- On the grounds of physical constraints, a redirection of Auckland's growth away from the south and to the north and west was necessary,
- Even with the best intentions of concentrating growth more in the future there would have to be 'major compromises'. Continuing development of Auckland must not cause further loss of land that is valued highly for at least one purpose other than urban development.<sup>27</sup>

A number of future developments were identified within the proposed urban limit, including Hibiscus Coast, Okura/Long Bay, Albany, Massey, Hobsonville, Birdwood, Swanson, Weymouth, Manurewa East, East Tamaki, Flat Bush, Greenhithe, Henderson, and south Titirangi. These areas, along with the existing urban development, were estimated to accommodate a projected population in excess of 1.1 million by the mid-1990s.

Intensifying urban development in order to make transport and infrastructure operate

### Population

707,607 people (1976)

### Built Area

37,000 hectares (1975)

### Density

19 people per hectare

### Summary

- Further expansion at East Tamaki, Massey East, Torbay, Glenfield and Te Atatu.
- Motorway system continued to develop -work began on the Central Junction.
- Growing awareness among planners of the problems of urban sprawl.

more efficiently had been an objective of regional consolidation strategies since the 1950s. However, there was high opposition to this resulting from the 1960s experience of infill, including poorly designed 'sausage flats' (single storey flats situated on cross-leased sections with common driveways) and houses on cross-leased sections. Concerns around monotony, lack of privacy, parking, noise, the loss of trees and urban amenity led to the continued desire by many residents to live in peripheral areas.<sup>28</sup>

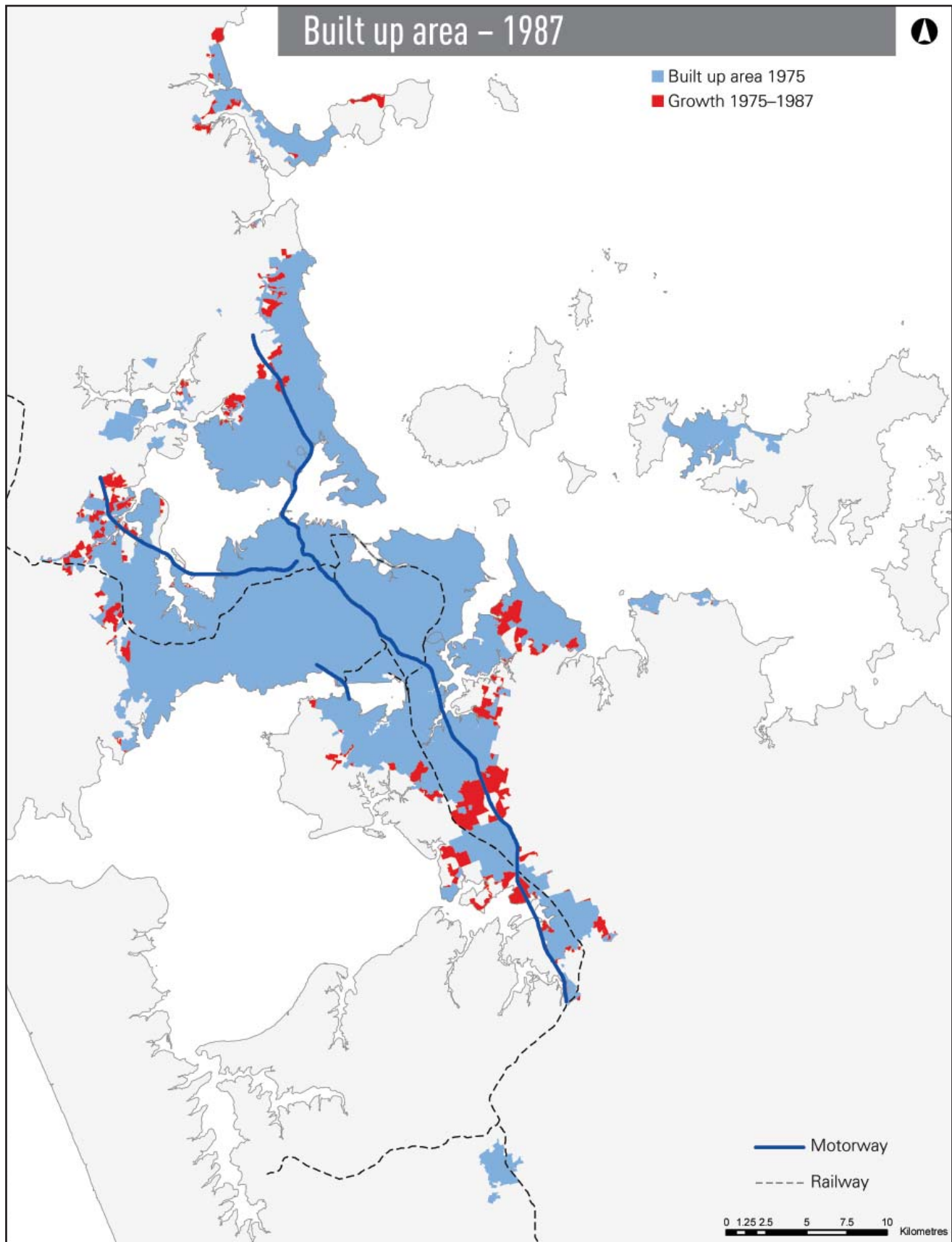
New subdivision (circa 1970s)



Auckland Regional Council

<sup>27</sup> Auckland Regional Authority (1974).

<sup>28</sup> Grant, J. (1989), page 7.



## 1980 – 1989: Intensification through infill housing

**D**uring this decade New Zealand experienced broad economic deregulation, significant changes to the welfare system, local government reform, a recession following the international share market crash of 1987, as well as ongoing population growth - all of which affected the shape of urban development in the Auckland region.

The trend of growth outside central Auckland continued into the 1980s as the outer areas grew, enabled by the reliance on private transport and the motorway system.

Growth in housing emerged from infill as well as the development of available land. There was substantial infill in the eastern suburbs of Remuera, Kohimarama, Mission Bay and St Heliers with a dominance of units/flats.

This trend was not the case elsewhere, and major new subdivisions were developed in Chatswood, Highbury, Meadowbank, St Johns and Rosebank with a dominance of houses instead of flats/units. High growth was also experienced in the Wiri area in the south (refer to growth map 1987).

The development of the Otara area continued through the 1980s and 1990s with the construction of medium and high cost housing at Redoubt North.

By the mid 1980s, Auckland was already facing a traffic dilemma, particularly on the main routes in and out of the CBD.

Towards the end of the decade, the CBD began to show signs of revitalisation. Changing lifestyle patterns and

household composition played a role in the demand for inner city apartments but the economy and employment factors were also influential. The economic reforms of the 1980s marked the start of a period of growth for industries that are commonly located in the CBD.<sup>29</sup> In Auckland, growth in the finance and insurance, and property and businesses service industries increased after the economic reforms, and created a number of employment opportunities in the central city. In line with this, the demand for inner city housing grew. In addition, the 1987 stock market crash had left many inner city office buildings underutilised which forced developers to look for alternative uses for their properties. Many converted their office blocks into apartments, and empty lots where office buildings were planned became open-air car parks.

Direct state intervention in the housing market diminished in the 1980s and began to take shape as welfare policy. This created a shift away from housing allocation policy based on the two-parent working family to a policy of providing for those with the greatest need.

It had been recognised by planners in the 1970s that continued expansion was likely to lead to increasing inefficiencies and continuing damage to Auckland's natural resource base, and that a more coordinated response was necessary. In response to these considerations, the Auckland Regional Planning Scheme (approved in 1988) brought into effect limits to contain the expansion of urban Auckland, and requirements for sequencing and structure planning of future urban expansion areas.<sup>30</sup>

### Population

754,845 people (1986)

### Built Area

40,022 hectares (1987)

### Density

19 people per hectare

### Summary

- Substantial infill development in some established areas.
- New suburbs continue to develop on greenfields eg Chatswood and Highbury on the North Shore, Wiri to the south, Westgate to the west, Meadowbank and St. Johns on the isthmus.
- Early development of the Albany site.

<sup>29</sup> Statistics New Zealand (2005), page 4.

<sup>30</sup> Auckland Regional Council (1999) Appendix A, Page 1.

**Population**

997,940 people (1996)

**Summary**

- Continuation of expansion around urban edge particularly in south east at Dannemora, Botany Downs and East Tamaki.
- Revitalisation of the Central Business District.
- Regional Growth Forum created, development of the Regional Growth Strategy and delineation of Metropolitan Urban Limit.

## 1990 – 1999: Strategies for growth

Auckland experienced considerable population increase during the 1990s, driven in large part by a change in national immigration policy that allowed new migrants to enter New Zealand based on skills. Three quarters (76%) of the nation's growth between 1991 and 2001 occurred in the Auckland region, which had reached the one million mark by the 1996 census.

As the region's population and economy continued to increase, pressures intensified on transport, housing and infrastructure. The removal of tariffs on imported vehicles in the early 1990s resulted in a flood of cheap imported cars on the market, which were eagerly consumed, and contributed further to the traffic dilemma. Public transport patronage was decreasing and traffic congestion was increasing. Much of the region's infrastructure (water supply, wastewater treatment, stormwater systems, refuse disposal, transport,

power, gas and telecommunication networks) was already reaching design capacity and needed upgrading to meet higher environmental standards as well as increasing demand. In 1995 and 1998, Auckland experienced water and power supply crises.

During the 1990s, the highest population growth was observed in Rodney district followed by Manukau city and Franklin district indicating a continued trend of peripheral growth. Some of this increase in residential development was enabled through rezoning of land around the city outskirts – e.g. Long Bay, Hobsonville, Flat Bush, Takanini and Hingaia.

Between 1991 and 2001, significant business building consents were issued along the southern corridor in Manukau, Takanini, Papakura, East Tamaki, as well as the CBD, Otahuhu, Onehunga, New Lynn, and Rosebank area along with clusters around Albany on the North Shore.

**Medium rise apartments in Auckland's Viaduct Harbour**

Auckland Regional Council

**Housing mix in Grey Lynn (1990s)**

Auckland Regional Council

At the same time, clusters of residential building consents were issued around Hobsonville, Henderson, Albany, East Tamaki, Flat Bush and Manurewa. A significant number of new residential building consents were also issued throughout the region's developed areas, suggesting continued infill.

While the outer suburbs absorbed a large proportion of growth in the 1990s, the inner areas and the CBD also accommodated a growing number of new residential developments towards the end of the decade. During the period 1991 and 2001, between 52% and 62% of annual metropolitan residential growth took place in existing urbanised areas (middle/inner/CBD) as opposed to 38% to 48% traditional greenfields fringe development in the outer zones.<sup>31</sup>

Some consolidation started to occur throughout the urban area during the 1990s with high density mixed-use in the CBD and medium density terrace and apartment developments being built in diverse areas such as Ellerslie, One Tree Hill, New Lynn, Waterview, Papatoetoe, Albany, as well as Takapuna, Parnell and Newmarket.

Despite rapid population growth, metropolitan urban limits had moved little since the 1950s. The region had absorbed over 300,000 more people since the late 1970s without significantly extending the urban limits.<sup>32</sup> Most of the areas that experienced growth had been identified as future growth areas by the regional planning documents of the time.

As a result of significant and ongoing population growth, concern about capacity constraints with existing infrastructure including land availability, and a number of significant Environment Court cases between councils, the Auckland Regional Growth Forum was established in 1998 with the objective of a joint regional growth strategy for the

Westgate (circa 2003)



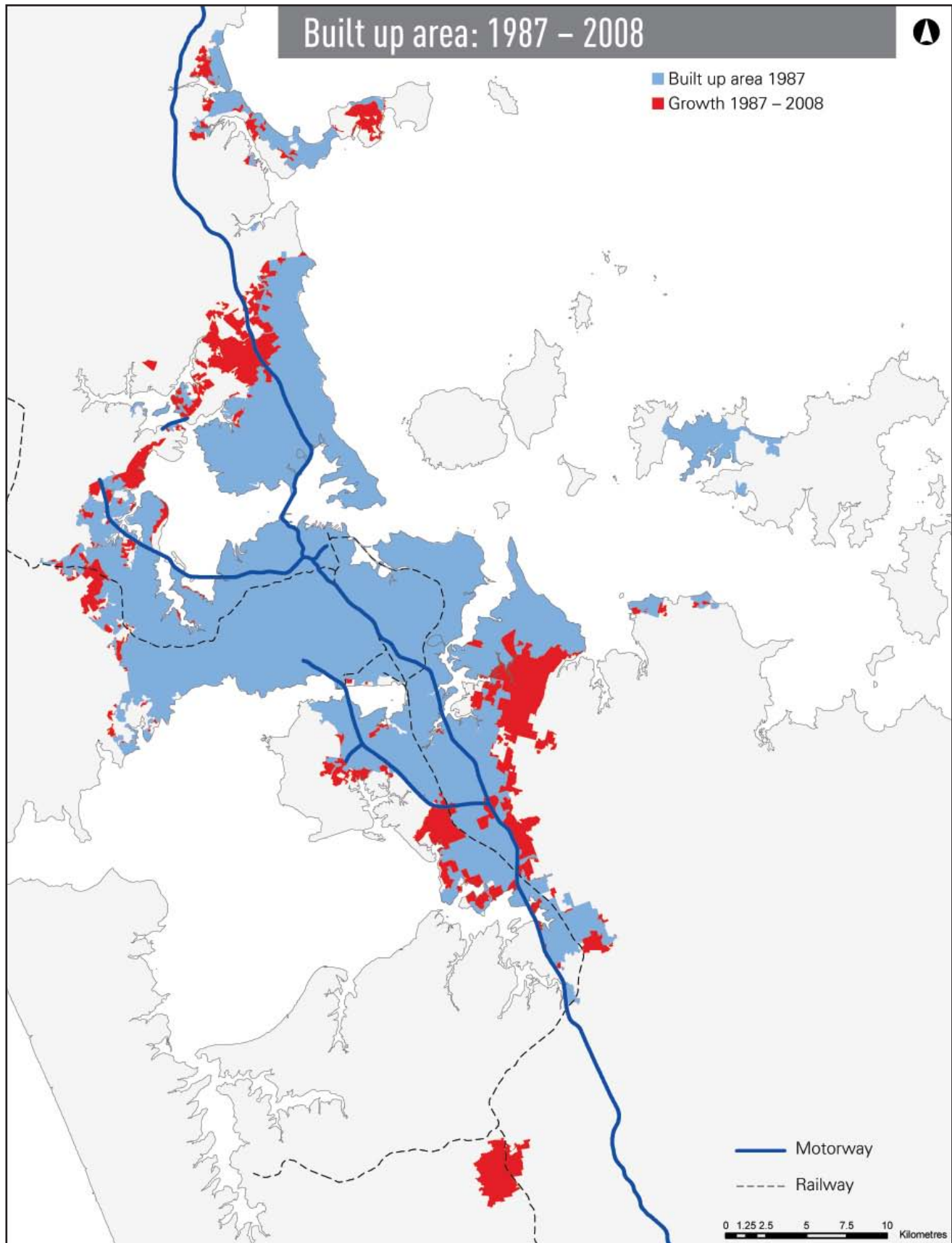
Auckland Regional Council

region. Later in 1999, endorsed by the Regional Growth Forum, the Regional Growth Strategy was released. It provided a vision for what Auckland could be like in 50 years with a population of two million. The purpose of the Regional Growth Strategy was to ensure growth is accommodated in a way that meets the best interests of the inhabitants of the Auckland region. Key principles of the strategy included:

- A compact urban form, with most growth within existing metropolitan area focused around town centres and major transport routes to create higher density communities;
- Focus on a variety of housing and mixed use activities to provide for employment, services and recreation;
- Limited managed expansion into greenfield areas outside of current Metropolitan Urban Limits (MUL) where environmental quality, accessibility and infrastructure development criteria can be met;
- Protection of the coast and surrounding natural environment.

<sup>31</sup> Auckland Regional Council (2002).

<sup>32</sup> Auckland Regional Council (1997).



## 2000 – 2009: The new millennium

By 2001, Auckland's regional population reached had 1.2 million people, with the majority of the population living within the urban area (90%). The urban form for the most part consisted of low-density housing (in 2006, 75% of occupied private dwellings were detached houses and the remaining 25% was made up of flats and apartments), but there has been a gradual increase in compact living options.

Development in the first decade of the 21st century has moved from being primarily peripheral to intensification through infill, redevelopment and the development of remaining vacant lots (within the MUL). Peripheral development has continued but by way of Structure Planned areas such as Hobsonville and Flat Bush. These developments are generally still low density.

There has also been growth in residential levels just outside of the urban limits with the increase in countryside living or 'lifestyle blocks' e.g. around Pukekohe, Kumeu and Whenuapai, and along the coastal areas of Whangaparaoa Peninsula and further north.

Analysis of building consent data shows that the two largest greenfield growth areas in this decade have been Mangere South (adjacent to the Auckland

International Airport) and Albany (Greenhithe, Albany). There has also been strong growth in Donegal Park, Newmarket and Sturges North due to infill and redevelopment.

The CBD has continued to be revitalised, with a boom in apartment building development. The inner city resident population increased 500% between 1991 and 2006 to over 17,000 residents.

Considerable investment in infrastructure has been carried out during this decade. The Britomart Transport Centre was officially opened in 2005, bringing rail back into the CBD and during 2007 the Central Motorway Junction and Grafton Gully were completed. In 2009 the Northern Busway was opened. This immediately increased public transport patronage between the North Shore and CBD. Heavy investment in the Auckland rail network lead to the redevelopment of the Newmarket and New Lynn stations and rail patronage continues to increase.

In the second half of 2009, a tender was let to a consortium to begin work on a tunnel under Victoria Park to ease the bottleneck through the Victoria Park flyover and planning was underway for a second harbour crossing over the Waitemata.

### Population

1,160,100 people (2006)

### Built Area

49,520 hectares (2008)

### Density

23 people per hectare

### Summary

- Significant growth around Auckland Airport, Mangere, Albany and Waitakere.
- Increase in popularity of "lifestyle blocks" in Pukekohe, Kumeu and Whenuapai.
- Significant investment in public transport infrastructure.
- New suburbs still being developed such as Flat Bush, but increasing growth through intensification.

Redevelopment in Newmarket (2009)



Auckland Regional Council

The Auckland CBD (2009)



Auckland Regional Council

## Looking ahead

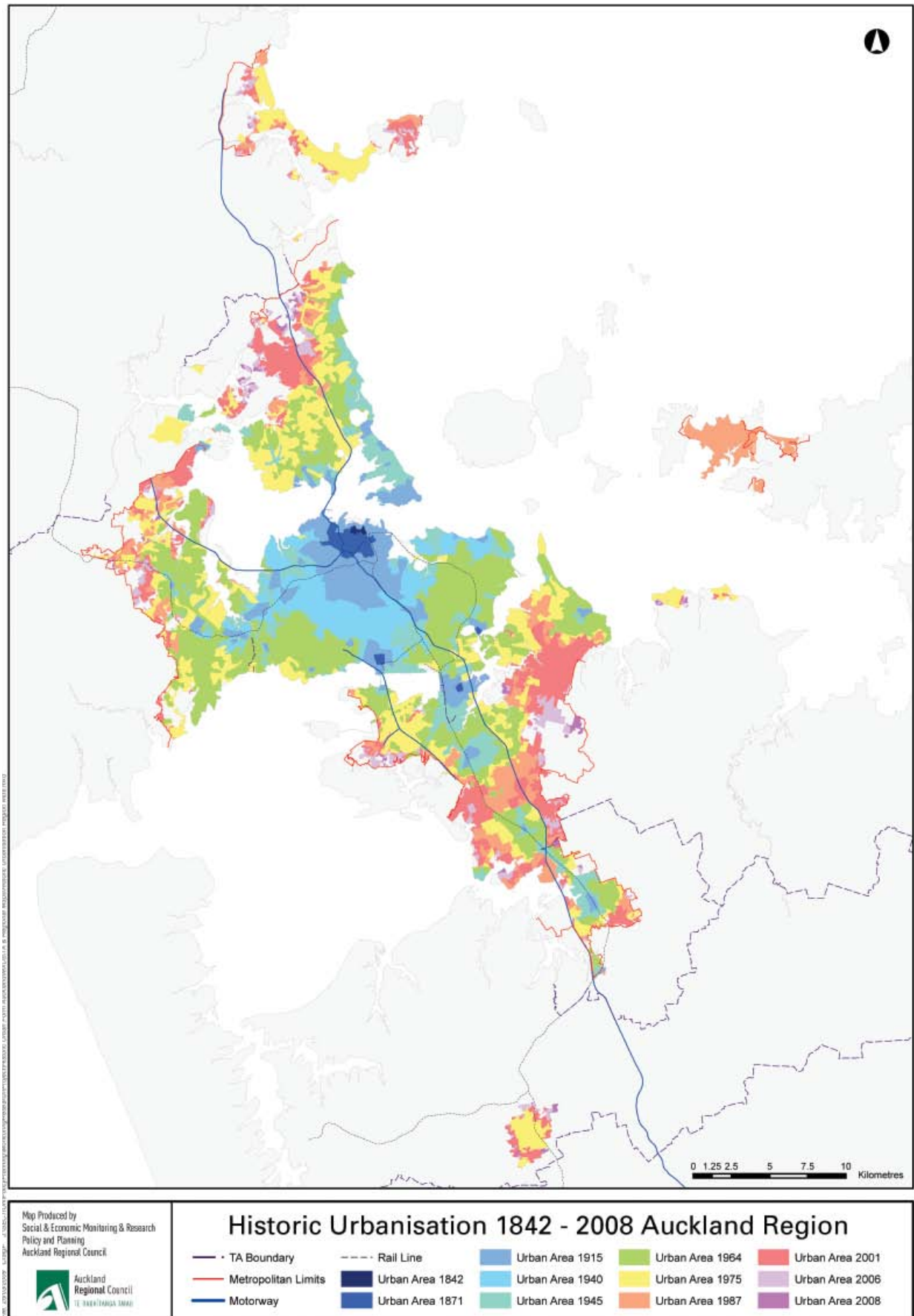
Over the last 170 years, Auckland has expanded from a modest cluster of residences and businesses around the sheltered bays and trading ports of the Waitemata Harbour into a thriving and diverse metropolis that is one of the largest (and most rapidly growing) urban areas in Australasia. The city continues to be a vital centre of commerce and trade and acts as a link and gateway for overseas trade and tourism across the rest of New Zealand. People flow into Auckland from other parts of the country as well as from overseas, keen to participate in the employment, education, cultural and lifestyle opportunities that a city this size can offer, boosting the population year after year.

As we move into the second decade of the 21st century, Auckland's momentum shows no signs of slowing. All projections indicate continued population growth and on-going demand for housing solutions. In the short to medium term, response to that demand will continue to include expansion as well as intensification. The remaining greenfields will be developed, for example Flat Bush and Long Bay, while benefits of compact living will be realised through ongoing development of medium to high density apartments in the central business district and other

centres such as Newmarket, Takapuna and Henderson.

During the latter half of the 20th century, problems associated with sprawl were recognised by residents and planners alike, as Auckland continued to expand outwards. In response, urban planning policies of containment and urban consolidation were developed throughout the 1970s, 1980s and early 1990s, and were consolidated in the Regional Growth Strategy and the associated Growth Concept, agreed to by all councils in 1999. The strategy's central vision is to ensure that Auckland retains a high quality living environment by promoting compact urban environments that have high amenity and are well integrated with the transport system. The restructure of local government in the Auckland region into one unitary authority (as of November 2010) may help to drive this vision forward.

Auckland's future urban form will continue to be shaped by land availability, planning mechanisms, transport links and infrastructure provision. As we move forward into the new century, other, newer, challenges of sustainable energy use and development, the effects of climate change and protecting the region's natural and cultural heritage will become increasingly important.



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### A number of other resources are available at the following places:

Auckland City Archives  
Auckland Central Library  
University of Auckland Library, General and architecture  
Museum of Transport and Technology  
New Zealand Film Archive: Auckland Branch



