

**Waitakere City Council  
Proposal to Shift the MUL in the  
Northern Strategic Growth Area, Waitakere**

**Integrated Transport Assessment**

January 2007

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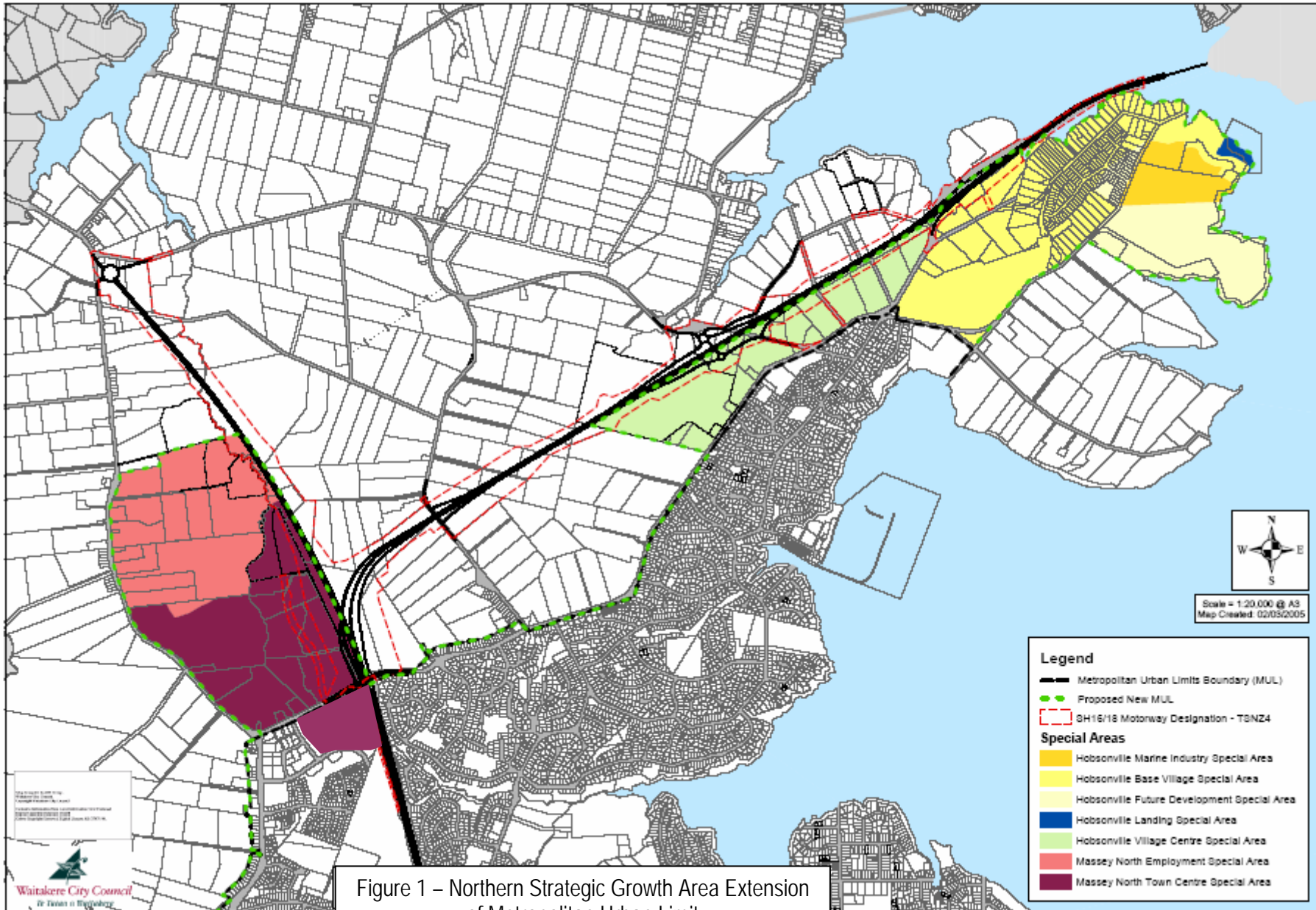


Figure 1 – Northern Strategic Growth Area Extension of Metropolitan Urban Limit

# 1 INTRODUCTION

This Integrated Transport Assessment is in relation to the proposed shift of the Metropolitan Urban Limit (MUL) and associated proposed District Plan Changes at Hobsonville Airbase (Plan Change 13), Hobsonville Village (Plan Change 14) and Massey North (Plan Change 15). These areas are shown in Figure 1 above and are together referred to as the Northern Strategic Growth Area (NSGA). Proposed Change 6 to the Auckland Regional Policy Statement (ARPS) includes a new set of policies focused on land use and transport integration. Proposed Method 2.6.12.8 states that territorial authorities shall ensure that proposals for new major traffic generating activities are subject to a transport audit as part of the assessment of environmental effects accompanying the proposal. This Integrated Transport Assessment (ITA) is provided to fulfil that requirement.

Planning for growth at NSGA occurred leading up to, and subsequent to, the adoption of the Auckland Regional Growth Strategy in 1999 (ARGS). The North West Sector Agreement (NWSA), signed by Auckland Regional Council, Waitakere City Council, North Shore City Council and Rodney District Council in 2001, provided support and further direction for growth in these areas, including a proposed sequencing of growth in the northwest. Both the ARGS and NWSA require a subregional centre at Westgate / Massey North. Waitakere City Council (WCC) considered a number of options for the location of the major centre and the smaller centres. This work is reviewed in a letter sent to ARTA by A Magee on 2 November 2005 and attached to the draft Transport Audit provided by WCC in March 2006. In order to establish a subregional centre at Westgate / Massey North to meet the population and employment targets set in the ARGS, it is necessary to extend to the northern side of Hobsonville Road as proposed.

The proposed sequencing of growth in the city is shown in Policy Map Z (Plan 1 at Appendix A).

Concept plans have been prepared to support the MUL and District Plan change proposals and these provide a guide to the land use and transport that is envisaged (See Plans 2, 3, and 4 in Appendix A). WCC is continuing to develop and refine the detail of its proposals in light of new information and feedback from affected parties. This ITA reflects the current status of the proposed MUL shift and the most up to date information has been used.

The Auckland Regional Council (ARC) agreed to notify the proposed MUL shift in March 2005 as part of its revision of the Auckland Regional Policy Statement (ARPS).

The proposed MUL shift and associated District Plan change proposals promote:

- At Massey North / Westgate - a mixed use sub-regional centre and industrial area;
- At Hobsonville Village - an employment focused development, including a supermarket and some residential; and
- At Hobsonville Airbase - a primarily residential development, with marine focused employment and limited retail.

These developments are to be built in a similar time frame to the realignment of SH18 and extension of SH16. The proposed MUL shift is the first stage of a sequenced approach to growth in the north west, to ensure that the growth is employment led rather than residential led. The other areas contemplated for growth by the NWSA are the Red Hills area to the west and the area between the Hobsonville Road ridge and the proposed SH18. These are taken into account in the modelling of effects of the proposed MUL shift. WCC has proposed the growth sequencing (shown in Plan 1, Appendix A) in accordance with the NWSA.

The key reasons and benefits in respect of the proposed MUL shift are:

Fixing an existing problem – The proposed MUL shift aims to fix the existing problem of historic unsustainable patterns of development which have produced Massey as a dormitory suburb since the 1960s. The proposed MUL shift provides a sustainable edge and completes the urban form. The proposed Massey North town centre on the urban edge will serve the existing and proposed areas in the north west.

Necessary for ARGs - The ARGs and sector agreement promote a shift of the MUL in this area and WCC cannot meet its obligations to the Northern and Western Sector Agreement (NWSA) without the proposed levels of employment and residential land provision. Access to employment, retail and basic facilities and services in the Massey area will significantly increase as a result of the NSGA. The investment from developers is vital for the NSGA and also the wider north west. The expected growth at New Lynn and Henderson is strong, but would not be sufficient to meet the residential and growth targets in the NWSA. The proposed NSGA would contribute to growth at New Lynn, Henderson and Waitakere City.

Employment and Economic Development – The proposed MUL shift is projected to provide 8,815 new jobs by 2011 and a GDP output of \$224,919 million in 2011. The industrial area at Massey North is needed to provide the amount of employment land sought in the NWSA. It would be strongly placed to support a regional commercial airport at Whenuapai in the future. Hobsonville is also intended as a job-led sustainable development.

Reduction in trip lengths – Average trip lengths in the north west are projected to reduce if the NSGA develops as proposed. This provides significant benefits in terms of fuel use, costs of travel, travel time and CO<sub>2</sub> emissions. The establishment of a sub regional town centre, employment and local facilities provide a local destination for new residents and existing residents in the north west who are currently required to travel large distances to work, shopping and basic requirements.

Supports intensification at New Lynn and Henderson – The establishment of a subregional centre at Massey North supports growth at Henderson and New Lynn by providing a critical mass for economic development in Waitakere City and creating better links with North Shore and southern Rodney. The motorway location at Massey North will attract goods-based businesses that require easy access to the regional motorway network, and these are not the same types of business that would be appropriate to locate at Henderson or New Lynn.

Improvements in passenger transport, walking and cycling – The proposed MUL shift provides the opportunity, incentive and development contributions for improvements to bus, ferry, walking and cycling infrastructure and services. The location of employment, residential, and services on this corridor supports the QTN services proposed by ARTA and mandated in the ARLTS.

Utilise investment in SH18 and SH16 extension – Development of the NSGA will take advantage of the access created by SH18 and the SH16 extension and reduced traffic on existing roads. The establishment of “destinations” in the north west will result in traffic utilising these motorways in both directions during the day, rather than mostly in a single direction as current. Up to 90% of new trips are expected to be in the contra-peak direction.

Opportunity with current land owners – There is a unique opportunity to work with current land owners who hold large areas of land and are committed to sustainable transport and land use outcomes. For example, the Hobsonville Land Company is planning for unique sustainable outcomes on behalf of Housing New Zealand. IMF Westland similarly owns a large land holding at the proposed Massey North and has a Memorandum of Understanding with WCC to work together in achieving sustainable outcomes. It is easier to implement integrated solutions in this situation.

Analysis of three development scenarios has been done in this Integrated Transport Assessment:

A Do Minimum scenario has been developed for the purpose of assessing the relative merits of the other options. The Do Minimum scenario assumes that the MUL remains where it is now and that all new growth within Waitakere City is spread within existing centres and corridors.

NWSA. This scenario assumes the MUL is shifted as per the Northern and Western Sector Agreement (NWSA). The NWSA provides an indicative line for the MUL at Massey North and includes a specific note that further planning would determine the appropriate boundary in order to achieve required growth targets.

NSGA. This is the option put forward by WCC and subject to the MUL shift proposal. This option is the same as NWSA and provides clarity about the boundary at Massey North to include the 60 hectares of employment land adjoining the north side of the town centre in order to get achieve the growth targets.

## 2 PLANNING AND POLICY FRAMEWORK

### ITA Guidelines

This section sets out the wider context for development of the area. It focuses on whether the development supports the policies of the ARGS, ARPS, ARLTS and District Plans.

### 2.1 Regional Context

#### Auckland Regional Growth Strategy 1999 (ARGS)

This proposal is consistent with the ARGS and associated NWSA, with both documents identifying a sub-regional centre in the area proposed by WCC. WCC is proposing an additional 60ha of employment land beyond that contemplated in the ARGS but still consistent with the 200ha of employment land promoted in the NWSA. The ARGS and NWSA contemplate changes being made to growth options as planning progresses. The need for additional employment land can also be supported by reference to the Draft Business Land Strategy, endorsed by the ARC in July 2006.

The ARGS identifies the area covered by the proposed MUL shift as an area for greenfields development (residential and employment) and Massey North / Westgate is identified as a sub-regional centre and an area for major employment development. Although an additional area of employment land is sought the proposal is generally consistent with the ARGS.

The ARGS (p61) notes that sector plans will be developed *"to provide detail on how it will be implemented at a local level"*. The NWSA (p16) notes that the final extent of the proposed growth areas *"will be defined during concept planning"*. Therefore, the WCC proposal to bring an additional 60ha of employment land into the MUL, beyond that contemplated in the ARGS is not inconsistent with the flexible, cascading approach of the ARGS and the NWSA (Refer to evidence of Shearer, Sections 40 – 45, for discussion of flexibility of ARGS and NWSA).

Table 4 of the NWSA identified a need for an additional 200ha of employment land within WCC by 2021 and a target of 60% internal employment (from the existing approximately 40% internal employment). The areas covered by Plan Changes 13 – 15 make provision for approximately 200ha gross of employment land. If the

additional 60ha of employment land proposed by WCC is not allowed for then WCC will not be able to reach the 200ha goal set out in the NWSA.

The 200ha is expected to be less than the total required as business land is being taken up at a faster rate than anticipated. The Draft Business Land Strategy, endorsed by the ARC in July 2006, notes that vacant business land in the Auckland region will be used up by about 2011. One of the criteria for guiding regional growth planning in the ARGS (p66) was that adequate land supply would be identified for a 15 – 20 year planning period. Therefore the 200ha of business land in the area proposed by WCC for the MUL shift is a minimum necessary requirement and is consistent with the ARGS requirement that planning provide for 15 – 20 year horizon.

In terms of population provisions, the NWSA noted that WCC should provide for 13,000 new residents in greenfields areas by 2021 (17% of growth). WCC's proposal to move the MUL provides for 14,800 new residents by 2021 and so is consistent with the NWSA.

The proposal to accommodate 14,800 residents in the NSGA does not compromise WCC's commitment to intensification in existing centres and corridors. The NWSA called for WCC to accommodate 74% of new growth within the existing urban area by 2021. WCC now intends to accommodate 78% of new growth in the existing MUL due to a reduced target in the foothills / ranges area (note that the regional 'Growth Concept' seeks to have more than 70% of growth within the 1999 MUL and this will be exceeded).

### Auckland Regional Policy Statement (ARPS)

WCC's proposal to have the MUL shifted is consistent with the Transport Objectives, including changes proposed under Plan Change 6, of the ARPS:

ARPS Objectives (Section 4.3)	WCC Proposed MUL Shift
To develop a transport network which supports a compact sustainable urban form.	WCC propose to have the MUL moved to be (generally) against the re-aligned SH18. This will provide a more defensible boundary than the existing boundary at Hobsonville Road. Location of the Massey North Centre and smaller Hobsonville Village and Airbase centres support development of bus services. Local roads will be developed to support walking and cycling.
To avoid, remedy or mitigate the adverse effects of transport on the environment.	WCC proposals significantly reduce CO2 production compared to a do minimum scenario and help promote walking, cycling and passenger transport.
To develop a transport network which enables all sections of the community to gain access to community resources.	The transport network will provide strong connections to the proposed Massey North centre which in turn provides significantly improved access to services relative to the current situation or a do minimum option.
To develop a transport network which provides an acceptable level of accessibility between important activity areas.	The TNZ investments in state highways will be the major source of improved accessibility between important activity areas, e.g. Albany, Massey North and the CBD.
To develop a transport network which is as safe as is practicable and which promotes better physical health for the community.	The ways in which safety and provision for walking and cycling are addressed is detailed later in this ITA.

## Auckland Regional Land Transport Strategy 2005 (ARLTS)

WCC's proposal to have the MUL shifted is consistent with the Policy Groupings of the ARLTS 2005 (Section 7.1):

ARLTS Policy Groupings (Section 7.1)	WCC Proposed MUL Shift
Contribute to an integrated, safe, responsive and sustainable transport system	<p>WCC proposals link well with TNZ investments in SH16 and SH18, and ARTAs proposed investments in bus services. Bus infrastructure will be located to integrate bus services.</p> <p>WCC is taking into account the objectives of the RLTS.</p> <p>WCC is integrating its actions with other transport organisations – TNZ and ARTA are being worked with as closely as possible.</p> <p>WCC have identified options for facilitating safe movement of pedestrians, cyclists and vehicles at critical points in the network (Hobsonville Road west and Hobsonville road at the Village). Further detail will be provided as planning progresses.</p> <p>WCC has consulted affected communities in the work to date.</p> <p>The detailed design of facilities will meet appropriate standards for transport disadvantaged.</p> <p>WCC has undertaken transport studies to identify transport infrastructure improvements or designations that will be necessary.</p>
Make best use of the existing transport system	<p>As demonstrated later in this ITA the WCC proposals make very efficient use of existing road networks by placing jobs and services in an area currently poorly provided with these. This results in up to 90% of new trips being in the contra-peak direction. The location of jobs and services also supports the proposed QTN bus service investments.</p> <p>WCC intends to establish a road hierarchy (See appendix A for draft proposals)</p> <p>WCC will work with TNZ and ARTA to implement network management through Corridor Management Plans and limited access.</p> <p>WCC has undertaken work to show that freight traffic can be satisfactorily moved.</p>
Manage travel demand	<p>The WCC proposal significantly reduces the need to travel by locating, currently scarce, jobs and services in proximity to residential areas.</p> <p>Travel choices are provided through viable bus, pedestrian and cycle options as well as private car and possibly ferry services.</p> <p>WCC intends to promote travel plans but not through the District or MUL plan changes.</p> <p>WCC's transport strategy promotes parking pricing, but this is outside the scope of the current ITA.</p>
Increase the capacity of the transport network	<p>WCC has made provision to improve, upgrade and expand passenger transport infrastructure, including major facilities at Massey North.</p> <p>WCC has made provision to upgrade and provide additional local road infrastructure to improve network efficiency.</p> <p>The District Plan changes require pedestrian and cycle infrastructure to be built.</p>
Allocate the available transport funding to ensure the policies of the Regional Land Transport Strategy are achieved	<p>WCC has allocated funding in its LTCCP to reflect the goals of growing centres and corridors. (See plan V from WCC Transport Strategy).</p>

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## 2.2 WCC District Plan

WCC has proposed new District Plan policies and rules to help achieve the LGAAA goals of transport and land use integration. Proposed Plan Change 16 (Managing City Growth) promotes staged intensification around selected corridors and centres (shown in policy maps X and Z of that plan change). This Proposed Plan Change seeks to:

- Introduce a new chapter in the Policy Section of the District Plan, to provide the strategic basis for the various Plan Changes proposed in this package, and to include new objectives and policies concerned with the management of growth;
- Set the platform to introduce future Plan Changes to implement the Waitakere City Growth Management Strategy, which proposes that 77% of the City's growth will be accommodated within the existing urban area, 17% in the NorSGA corridor, and 6% in the rural area;
- Outline the key growth issues facing the City, noting in particular that population is expanding faster than estimated rates, that there is limited land area to provide for growth, that there is a potential shortage of employment land, that the City has achieved only sporadic success at urban intensification in town centres, and that there is increasing pressure on the Waitakere Ranges and Foothills;
- Introduce a new objective, being "to manage growth in such a way that will ensure the city develops and redevelops to achieve a compact urban form - well integrated, with high amenity values and providing appropriately for additional population, employment, community and business services, by managing the location, density, scale, form, character, timing and sequencing of urban and rural growth";
- Establish eleven new policies focusing on the integrated management of urban and rural growth, transport and associated design issues; and
- Create two new Policy Maps and a schedule outlining location and staging of future urban growth in the city (as per the Waitakere City Growth Management Strategy).

## 2.3 Transit New Zealand

TNZ have worked closely with WCC to coordinate plans for further development / realignment of SH16 and SH18 with the proposed new land uses. This includes locating and sizing motorway ramps to facilitate development, constructing (or providing for the later construction of) cycle / pedestrian routes, agreeing key elements of linkages between local roads and state highways, and agreeing longer term needs, such as construction of a new local road bridge over SH16 to link Westgate and the existing Massey suburbs. TNZ have provided WCC with a letter of support for the NSGA proposals.

## 2.4 ARTA

WCC has worked with ARTA to understand its proposals to develop bus and ferry services in the area. WCC has planned for the provision of bus interchange and bus priority measures that are more than adequate to meet the proposed bus service levels. WCC is working with the developer of the Hobsonville Airbase (the Hobsonville Land Company) to agree plans for the development of ferry facilities to accommodate any services ARTA might run.

WCC intends to continue working with ARTA and TNZ to agree Corridor Management Plans and Limited Access arrangements for Hobsonville Road and the roads feeding into this road.

### 3 LAND USE CHARACTERISTICS

#### ITA Guidelines

All development proposals need to include a summary of land use / urban design decisions that impact on transport sustainability. This enables an analysis of the synergies or tensions between land use and transport decisions.

#### 3.1 Reasons for Location and Density

The location of the development reflects the opportunities for new land use development to meet the growing needs of the area within the framework of the ARGs and the NWSA. WCC is promoting a hierarchy of centres – at Massey North / Westgate there will be a subregional centre, at Hobsonville Village there will be an intermediate centre providing supermarket and retail facilities, while Hobsonville Airbase is restricted to mainly residential / employment and a small area of retail.

The location also responds to the opportunity provided by realignment of SH18 to establish a new and robust MUL boundary against the new motorway. The motorway access points to Massey North and Hobsonville Village employment zones also take efficient advantage of the new motorway location and access points.

The proposed industrial area at Massey North is located on relatively flat land, adjacent to the flight path of Whenuapai airport, which ensures noise affected land is not given to residential uses. This land has also been shown to have good motorway access via the existing SH16 and proposed Northside Drive.

Consideration was given to locating the sub-regional centre at Trig Road (See Magee 2005). However, this was considered to be too poorly linked to the motorway to ever become a large employment node or effectively capture car based retail. Thus many journeys would continue to be made to the CBD, Albany, Henderson and elsewhere.

The proposed density of the developments reflect generally accepted standards for medium density development and the growth targets set in the ARGs / NWSA, however, no upper limits on density are imposed by the District Plan changes. In places the District Plan changes impose minimum densities to promote the development of mixed use centres and reduce the need to travel for jobs and services and promote the opportunity to bus walk or cycle to relatively close jobs and services.

The proposed District Plan changes require minimum densities in some areas as follows:

PC16 (Managing City Growth), Policy O.1 requires that the further development or re-development of urban areas should be planned to provide the following 40 household units /ha gross.

PC13 (Hobsonville Airbase) has minimum household unit requirements for the various precincts. Current plans by the Hobsonville Land Company are for an average residential density across its site of 42 dwellings per hectare net.

PC14 (Hobsonville Village) has no minimum residential or employment density requirements. However, Policy O.1 (bullet 4) of plan change 16 applies in residential precinct B (40 units / ha /gross).

PC15 (Massey North) – Town Centre precincts A, B, C and D each require provision of no less than 40 apartments per hectare. These precincts also have minimum floor level requirements (see Rule 26.3.C) which promotes density and a sense of urban centre rather than suburban dormitory.

The location and density of the proposed development helps to optimise investment in the state highway network by promoting use of the relatively empty side of the motorways via 'reverse' commuting away from the congested routes into the CBD. For example, on the north western motorway between Royal and Lincoln Roads 90% of the additional traffic is in the contra peak direction. The location and density also helps to optimise proposed investments in bus and ferry services by increasing the market size and locating the market on proposed public transport routes.

It is also necessary to locate growth in this area to provide jobs and services to the existing Massey suburbs. The existing suburbs have very few employment, retail, entertainment and school options. Residents have to travel to Henderson or Albany for many retail, entertainment and other services. Residents travel widely across the region for work purposes. The area is under supplied with schools and the Ministry of Education plans to open at least two new schools on the Hobsonville Peninsula.

### 3.2 Urban Design Opportunities / Constraints

The developments proposed are facilitated by relatively easy topography. The sub-regional centre at Massey North makes use of the best-contoured land in the corridor. The Hobsonville Village location makes good use of motorway access for employment creation and a small town centre with a super market serving the local population. The Hobsonville Airbase makes good use of water access for marine industry employment and ferry access.

As a Greenfield proposal there are few existing urban design constraints. The location of the proposed Massey North mainstreet is opposite the location of the existing main route into Westgate. Other proposed important roads into the Massey North centre are opposite existing roads to Westgate and the proposed motorway ramp.

The Greenfield nature of the site provides the opportunity to design access into and through the site in ways that promote walking, cycling and public transport use while meeting the reasonable needs of other vehicle users. WCC and the Hobsonville Land Company have put a lot of effort into identifying and designing-in these opportunities as shown in concept plans. WCC has also written the District Plan changes to ensure good urban design and transport integration while leaving opportunities for developer innovation.

Road access into the proposed Massey North centre has been agreed with TNZ. It is not possible to move these access points without the further agreement of TNZ. New road access to / from other parts of Hobsonville Road will be agreed with TNZ through the development of limited access and corridor management plans. These are to be developed jointly by WCC, TNZ and ARTA.

The location of motorway ramps provide opportunities and constraints, for example, the section of Hobsonville Road that runs between Westgate and the proposed Massey North centre will be designed to meet TNZ requirements for traffic flow to and from the motorway as well as local travel needs.

The existing major road intersections with Hobsonville Road have been designed into the concept plans for PC13, 14 and 15. It is intended to realign part of Hobsonville Road as it passes through Hobsonville Village.

Coastal access at the Hobsonville Airbase provides an opportunity to focus some development in conjunction with ferry facilities.

Policy map Z (Plan 1 in Appendix A) shows the planned sequencing of growth in the north west, including possible future extensions of the MUL. This together with schedule Y and policy O.9 in Plan Change 16 constrains the sequencing and timing of growth.

The possibility of a commercial airport at Whenuapai would enhance the proposed developments at NSGA. Massey North and Hobsonville Village would have an important role in providing support for a commercial airport, in terms of manufacturing, storage and commercial services, retail and labour force. Further benefits in terms of average trip lengths, travel times and efficiencies could be expected to arise. Due to uncertainty

about a commercial airport at Whenuapai, it has not been taken into account in the modelling work generally; however, refer to pages 184 to 199 of the CSU report for a specific assessment of the impact of adding the airport.

### 3.3 Givens for the Proposal

TNZ have designated the routes to extend SH16 and realign SH18. These designations include land for the proposed motorway connections.

WCC will need to ensure a new road (to be called Northside Drive) is built linking the existing SH16, on the north side of the proposed Massey North centre, to SH18 at Trig Road.

It is expected that some of the roads within the Massey North town centre will be designated, however this has not been finalised.

### 3.4 Potential to Cluster on Passenger Transport Corridors

The proposed developments take up the opportunities to cluster on the proposed QTN route along Hobsonville Road and the walking precinct around passenger transport hubs at Massey North, Hobsonville Village and Hobsonville ferry terminal. Bus services will hub at the proposed Massey North passenger transport interchange. It is possible that ARTA will develop a RTN bus route in the corridor at some time, if so Massey North centre is well located to support that.

### 3.5 Design Relationship to the Transport Network

Cycle transport between North Shore and Massey North / Westgate is to be provided on Hobsonville Road (in Waitakere City) with a cycle / pedestrian route along the new SH18 bridge and route in North Shore. Once the new SH18 is open the reduced traffic on Hobsonville Road will support use of this road for cyclists. In the longer term (beyond 10 years) it is possible that a cycle route will be built along the Waitakere section of the new SH18, TNZ and WCC have planned for this. The proposed District Plan changes for PC13, 14 and 15 require provision to be made for safe cycling within the Hobsonville Airbase/ Village and Massey North areas. These provisions are to be detailed at the Comprehensive Development Plan and /or resource consent stage.

The design of the proposal is well linked to the proposed new motorway interchanges for SH16 and SH18 and makes good use of these investments. TNZ<sup>2</sup> have signalled their support for the WCC proposals.

Provision has been made to give priority access for buses into and out of the Massey North centre. There will be a major bus interchange here and a loop service within the centre may be established, subject to agreement with ARTA. Bus passengers will also be able to interchange at the Hobsonville Village and Hobsonville Airbase.

WCC recognises the need for strong pedestrian linkages between the existing Westgate and the proposed Massey North town centre and efforts have been made to give pedestrians greater priority and a high amenity environment. WCC is committed to exploring innovative solutions to ensure strong pedestrian linkages, higher pedestrian amenity and priority. Residents and employees will be able to walk to bus stops on Hobsonville Road and pedestrian crossing points will be spaced along Hobsonville Road. The initial concept design of Hobsonville Road which has been used for modelling purposes has a number (15 over about 3km) of pedestrian walkways linking the existing Massey suburbs adjacent to Hobsonville Road with Hobsonville Road. These walkways are not well designed (being 1960s to 1980s designs) but do provide reasonable well spaced access. WCC intends to identify ways in which these walking routes can be improved to facilitate safe use.

The concept plans for PC13, 14 and 15 identify the internal road network for each area.

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<sup>2</sup> See letter dated 20 October 2006 from Peter Spies, TNZ Regional Manager

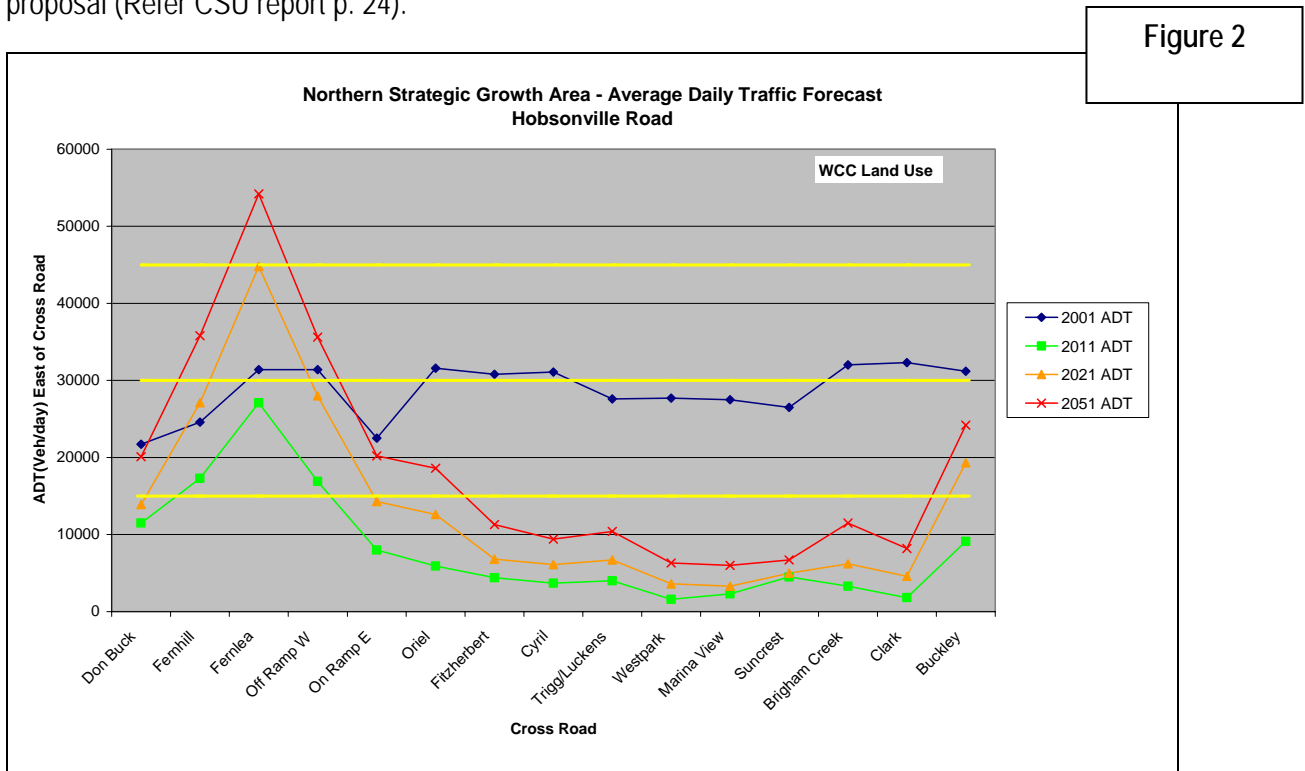
The proposed road hierarchy for the PC15 is provided as Plan 5 in Appendix A.

## 4 TRAVEL CHARACTERISTICS

### ITA Guidelines

All developments will be expected to provide information on how people will access the proposed development.

This section of the report covers residential and non-residential travel, freight and an outline of travel benefits. Details on expected vehicle travel conditions are set out in the travel analysis report – CSU - City Services Unit. “Northern Strategic Growth Area, Overview of Future Traffic Volumes.” August / September 2006. Figure 2 below shows expected traffic volumes along Hobsonville Road at different years under the WCC proposal (Refer CSU report p. 24).



### 4.1 Residential and Non Residential Travel

#### Origins and destinations.

It has been a consistent trend in Waitakere City that approximately 75% of employees are sourced from within Waitakere City. There are numerous factors at Massey North which indicate that over time employment within a subregional centre would largely be sourced from within the centre and adjacent suburbs. These factors include the large distance from Massey North to other employment centres, the large residential catchments which could potentially work at Massey North, the passenger transport, walk and cycle links planned and the high amenity environment planned at the mixed use subregional centre.

The proposed employment, service and retail uses will be serving a sub-regional function and are expected to attract visitor movements and workers from south western Rodney, North Shore and Waitakere, as well as more widely. The CSU report pages 164 to 168 provides detail on trips within and between zones in the NSGA area and surrounding areas.

Safe and Pleasant to Walk. The extent to which walking will be safe and pleasant will vary across the NSGA area. WCC has sought to promote walking as a safe and pleasant option through concept design work and the policies and rules of the District Plan changes. Within the PC 13 area it is expected that walking will be an important and well used option. This is in part because traffic volumes are low on all parts of the road network, but more importantly because the District Plan rules have been picked up on and supported by the land developer in such a way that a highly walkable development is being proposed. Also, the developer is considering parking management options that will promote the use of walking, cycling and public transport. Within the PC14 area the District Plan promotes well linked roads and walking-supportive urban design, and traffic volumes will be such that walking should be a safe and pleasant option. However, at this time WCC may need to agree with TNZ building set backs on the north side of Hobsonville Road of 10m to address TNZ concerns of reverse sensitivity, which will negatively affect such things as passive surveillance. Within the PC15 area it is expected that the road network and open spaces will provide a very permeable and easily walked environment, the District Plan rules promote a high standard of pedestrian provision.

WCC is working with TNZ to agree how Hobsonville Road between Westgate and Massey North will be developed, refer to Appendix A Plan 7 for the latest concept plan. This concept plan has been used for traffic modelling purposes and provides on each side of Hobsonville Road a 1.5m wide footpath, plus a 1.4m wide off-road cycle path, plus a 4.2m wide road lane adjacent to the cycle path that can take cyclists and vehicles. The concept plan provides for signalised at grade pedestrian crossings and mid block crossings. This would give service equivalent to pedestrian crossings of Great North Road in New Lynn and Henderson.

WCC has agreed with TNZ to put in place a pedestrian bridge between the existing Massey suburbs and Westgate, over SH16.

WCC has identified a number of walkways from the existing Massey suburbs to Hobsonville Road for improvement to ensure better walking access to Westgate and Massey North. WCC does intend to commission work to identify options for improving walking access to Westgate, Massey North, Hobsonville Road, and the QTN services ARTA intend to run on it.

It should be kept in mind that the way in which Hobsonville Road is developed will change over time in response to TNZ requirements, the evolution of land uses and changing transport pressures. These changes are influenced but not fixed by the current proposal to shift the MUL.

Multi-purpose trips. All areas of the NSGA will attract multi-purpose trips as each area has a mix of residential, retail and commercial activities within them. However, Massey North is the main sub-regional centre and will be the focus of multi-purpose trips for Massey North and surrounding suburbs. A range of facilities and services will be within walking distance at the core centres at Massey North, Hobsonville Village and Hobsonville Airbase.

Parking. WCC intends to alter the parking standards notified in the Community Environment sections of PC13 and PC15 to establish maximum standards as discussed in evidence by J Murray to the Joint Hearings Committee, Transport Topic in October 2006. Expert review (See Arrington review attached to evidence of J Murray) of WCC parking proposals for PC13, 14 and 15 has supported the approach proposed by WCC. This includes having rules that require parking to be at the back of buildings and for buildings to actively front roads.

At this time it is not possible to calculate car park numbers as the amount of development is not clear and the District Plan rules are written so that developers have the opportunity to negotiate below / above parking standard requirements. Therefore, WCC will provide the opportunity for developers to negotiate parking provision in light of strategic goals, opportunities for TDM and market pressures.

Cycling Provision. WCC's Pedestrian and Cycle Strategy identifies Hobsonville Road as a cycle route with kerbside cycle lanes (See Plan 6 in Appendix A), when SH18 is realigned the traffic volumes will reduce and land uses along the corridor will intensify, providing an improved route. TNZ and WCC have agreed that a cycleway can be built along the realigned SH18 and preliminary design work has been completed for this,

however, this route will not be built in the next ten years. TNZ have built a cycle / walk route at the Upper Harbour Bridge connecting the North Shore side of SH18 to the Waitakere side and linking this into the local road network. Within PC13, 14 and 15 the local roads and park networks will provide for on and off road cycling. In PC13 and 15 a Comprehensive Development Plan is required and these will need to show how cycling is to be provided for in detail. In PC13, 14 and 15 District Plan rules are proposed that will require developments and the road network to provide for cycling. A shared cycle / pedestrian coastal path will be built in the Hobsonville Airbase (PC13) area.

Passenger Transport (Refer to evidence of D Davis for a detailed review of the proposed provision for passenger transport). ARTA intend to run a Quality Transit Network bus route from Massey North to Albany, with an interchange hub located at Massey North. WCC have required in the proposed District Plan change 15 that the interchange be built. WCC have also identified a number of bus priority options for entry into and out of the Massey North centre and these will be built as development occurs. A minor on-road bus interchange is proposed for Hobsonville Village and, subject to detailed planning, at Hobsonville Airbase. The road intersections on Hobsonville Road are spaced well to support walking access to bus stops near the intersections. A ferry facility is to be built at Hobsonville Airbase, subject to further discussions with ARTA over services. Regularly spaced signalised intersections will be near bus stops to facilitate bus customers trips to and from the bus stops.

See Plan 7 in Appendix A for concept design of Hobsonville Road adjacent to Westgate showing proposed bus priority measures.

## 4.2 Freight

The CSU report (p.12) shows that trucks will make up between 4 and 8% (total traffic 30 – 36,000 vpd) of traffic on Hobsonville Road adjacent to Westgate at 2051.

Freight vehicles will have the best travel times on the roads that skirt around Massey North centre (SH16 and Northside Drive) and so will have no incentive to go through the centre unless delivering there. Freight vehicles can be accommodated along Hobsonville Road and SH16 and also along Northside Drive and Trig Road. Freight trips servicing the Massey North town centre can be regulated by Council bylaws if required.

### 4.3 Benefits Relative to Do Minimum

The traffic analysis undertaken by WCC is with regard to the areas shown in the map below.

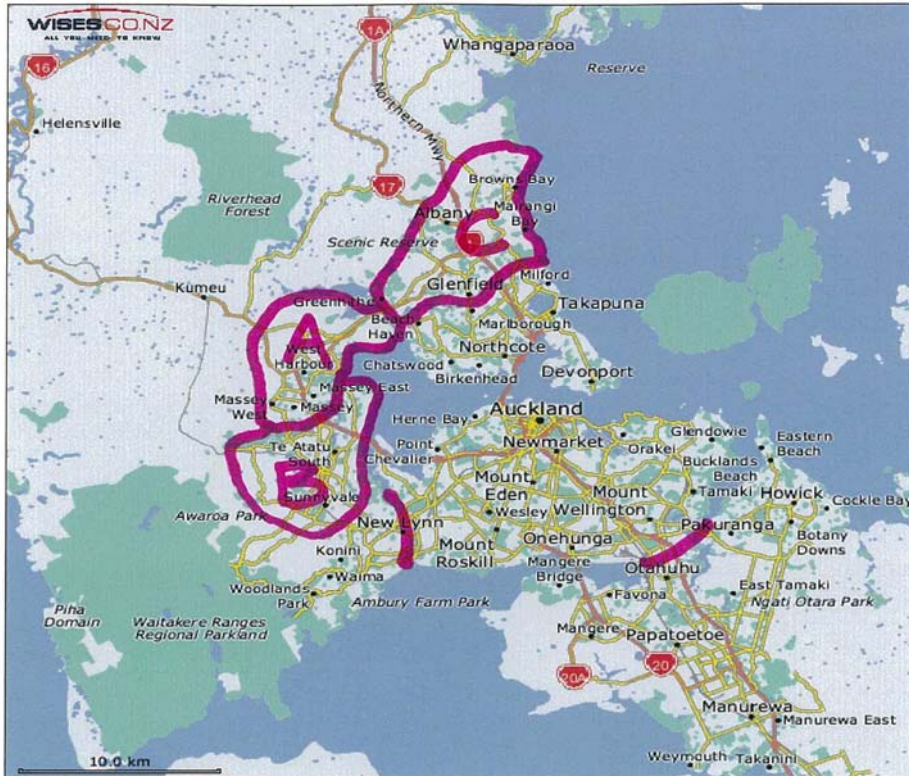


Figure 3

The transport benefits of the proposal relative to a do minimum option are significant and have been reviewed in the evidence supplied by Mr Hill, Mr Davis and Mr Wheeler to the Joint Hearings Committee. In summary key benefits are:

For households or employees in the area covered by the proposed MUL shift (Area 'A' in Figure 3 above) it is evident that the WCC proposal is significantly more efficient in terms of the cost per annum per household or employee of travel (See section 6.4 of Mr Hill's evidence).

Option	Year 2011 \$pa/ household or employee	Year 2011 \$pa/ household or employee	Year 2011 \$pa/ household or employee	Rank for all years
Do Minimum	\$11,500	\$11,700	\$14,700	3
NWSA	\$11,400	\$11,100	\$13,700	2
NSGA	\$11,200	\$10,300	\$12,900	1

The WCC proposal significantly improves the provision of local employment, thus reducing the need to travel. Mr Hill's evidence (sec 6.9) shows that area 'A' will continue to have significantly fewer jobs per household than other parts of the region unless the proposed MUL shift occurs. The regional ratio of jobs / household is just over 1. The WCC ratio of jobs / household at 2051 will be under 0.4 with the Do Minimum option and 0.8 with the WCC preferred option. Note that even under the best scenario (WCC preferred option) the North Shore and Manukau areas remain significantly better supplied with jobs / household than Waitakere City. See also accessibility to work showing similar results (Hill sec 6.15).

The proposal to develop employment and residential uses in this part of the regional transport network makes very efficient use of existing / proposed transport assets and reduces or delays the need to invest in major road works (Hill sec 6.11 – 6.12). This is due to 'reverse commuting' effects – 90%+ of additional traffic on

SH16 between Royal and Lincoln Roads is contra-peak flow; and 55% to 85% of the additional traffic on SH18 between Trig and Brigham Creek roads is contra-peak flow.

Mr Hill's evidence (sec 6.20) further demonstrates that (at 2051) the WCC preferred option produces significantly less through trips than other options as local jobs and services reduce the need to travel (45% under Do Minimum & 29% under NSGA); these trips are on average 35 km in length. There will be an increased percentage of internal trips as people stay within the area because their needs can be met locally (11% under Do Minimum & 21% under NSGA); these trips are on average 3.5km in length. There will be an increased percentage of internal / external trips relative to the do minimum option given the overall increase in population, services and employment (from 44% to 50%); these trips are on average 16 km in length.

The WCC proposals are environmentally efficient in regard to CO2 generation. By 2051 households and workers in Area 'A' would be generating 12.5% (309 kg/yr) less each on average under WCC proposals than under the Do Minimum option (Hill sec 7.3).

An economic impact assessment<sup>3</sup> of the NSGA proposal has found that it will produce a GDP output of \$224,919 million in 2011, compared to \$12,750 million under the Do Minimum option and 8,815 jobs and 608 jobs respectively.

WCC reviewed the expected impacts of the NSGA option on Auckland City and concluded that the effects were 'less than minor' (Hill sec 8.4) and that, owing to the location of the NSGA, less travel is generated in congested parts of the region than would occur without the NSGA (Hill sec 8.5).

The development of increased residential and employment levels in the area will support ARTA's planned investments and passenger transport. WCC intends to make significant infrastructure investments to support passenger transport; these are reviewed by Mr Davis in Appendix A of his evidence to the Joint Hearings Committee. These investments include a major bus interchange at Massey North and associated bus priority measures and park and ride facilities.

## 5 ACCEPTABLE TRAVEL TIMES

### ITA Guidelines

What is accessible from the site in terms of job opportunities, shops and other local facilities such as education, leisure activities?

### 5.1 Walking and Cycling Travel Times

Travel times for walking and cycling have not been quantified. However, the majority of new houses and jobs will be within a 400m or 800m radius of the centre of Massey North, Hobsonville Village or Hobsonville Airbase. This proximity to centres offering a range of jobs and services combined with interconnected streets and reserves will ensure the majority of people living or working in the area will have adequate walking or cycling access. New connections, walk ways and cycle ways are expected to provide dramatically improvement in travel times for existing residents and strong access to Massey North.

Plan 8 in Appendix A shows that almost all of the proposed new residential areas in Massey North are within an easy walk of the town centre.

<sup>3</sup> Brent Wheeler Ltd & The Answer Company, September 2006 (p.25). *North Western Strategic Growth Area EIA*.

## 5.2 Passenger Transport Travel Times

The majority of people living, working or accessing services in the area will be within a 400m walking distance of bus or ferry facilities. Preliminary planning for future MUL extensions along Hobsonville Road show that those areas could also be well served by bus (See Plan 9 in Appendix A). Based on the Passenger Transport Network Plan planned Quality Transit Network corridors, public transport travel times for some of the key connections will be as follows in 2016 as compared to current travel times:

Trip	Current 2007	Planned 2016
Westgate / Massey North to Henderson	20-35 minutes	20 minutes
Westgate/ Massey North to Takapuna	55 minutes	40 minutes
Westgate / Massey North to Downtown	55-80 minutes	25 minutes
Hobsonville to Downtown	80 minutes	45 minutes

## 5.3 Car Travel Times

Hill (2007) has provided information on road user levels of service and travel times. He concludes that the travel times and LOS results for movement to/from Westgate are generally similar for the do minimum and WCC options. Levels of service calculated are acceptable through to 2051 to/from the east and south except for the 2051 PM peak movements to Westgate, owing to congestion remote from the Northern Strategic Growth Area and Westgate. Levels of service and between Kumeu and Westgate will become unacceptable between 2011 and 2021 and consideration needs to be given to widening SH16 north from Brigham Creek Road under both the NMULS and WCCP scenarios.

## 5.4 Modal Splits

The modelling carried out by the Auckland Regional Council as part of this Integrated Transport Assessment process considered the proposed increase in residents, employees, passenger transport services and passenger transport infrastructure.

The modelling work found that for trips away from the corridor in the morning about 12.6% of trips would be by passenger transport. We consider this to be both realistic and achievable. This is due to the combination of the following elements:

- Quality transit network services
- the availability of a ferry service from Hobsonville
- an enhanced ferry service from West Harbour
- the provision of a bus park and ride at Westgate

Many trips, especially towards the Auckland Central Business District, will be in congested corridors where bus priority measures provide travel time savings to bus customers.

For trips to the Hobsonville Road corridor in the morning about 5.6% would be by passenger transport. We believe this estimate to be conservative and based on a scenario of public transport trips to a peripheral low-density employment area with ample free all-day parking and limited public transport service. The Westgate / Massey North town centre will be the public transport hub for the north-west of the Auckland region, providing

one-seat rides to New Lynn, Henderson, the Auckland Central Business District, Newmarket and the North Shore, all on high-quality modern branded buses with full fare integration running frequently.

ARTA staff experienced in the operation of the models used to analyse mode share have stated that the model does not take into account the range of travel demand management measures planned for the Northern Strategic Growth area and that up to another 5% in mode share could be attributed to the implementation of the travel demand management measures. Therefore, taking into account the travel demand management measures, the expected passenger transport mode share at Massey North is around 10.5%.

The fact that the Westgate / Massey North, Hobsonville Corridor and Hobsonville Airbase employment areas will have public transport services that exceed anything offered to date in an emerging area means that people can use public transport from day one with the assurance of a strong network already in place.

Employment and housing densities in the Northern Strategic Growth Area areas are designed to be easily of the order to support premium bus service based on internationally accepted thresholds for public transport supportive densities. Immediately to the south of the Westgate / Massey North employment centre lies the suburban area of Massey which is both socially and transport deprived. Poor existing public transport services in this area severely restrict the opportunities of transport-disadvantages to access jobs. The provision of significant job growth in Westgate/ Massey North combined with very good public transport service and a pool of unemployed workers gives additional validation that modelled estimates of travel into the Northern Strategic Growth Area for work will easily be exceeded.

A key desire expressed by Waitakere City residents is to be able to access employment within the city to reduce the need to travel long distances to work. At present only 13% of residents in the north west of Waitakere City work in that area. The planned employment area in Massey North will be ideally located for reverse-commute travel and will be well-served by public transport with strong levels of service planned from socially and/or transport deprived areas of the city where public transport dependency is higher than average.

Mode share for the Northern Strategic Growth Area				
Trips from NSGA	2001		2016	
Walk and cycle	103	6.4%	572	11.1%
Passenger transport	131	8.2%	803	12.6%
TDM			319	5.0%
Car	1,366	85.2%	4,681	71.3%
Trips to NSGA	2001		2016	
Walk and cycle	144	8.8%	681	9.0%
Passenger transport	64	3.9%	422	5.6%
TDM			379	5.0%
Car	1,436	87.3%	6,092	80.4%
Total NSGA trips	2001		2016	
Walk and cycle	247	7.5%	1,253	9.7%

Passenger transport	195	5.9%	1,225	9.5%
TDM			647	5.0%
Car	2,832	86.6%	10,824	75.8%

Table based on modelling data supplied by ARC from APT model with NSGA land use.

## 6 IMPROVEMENTS TO INFLUENCE TRAVEL

### ITA Guidelines

This section outlines the opportunities for improvements proposed to influence travel behaviour to the site. The overall aim is to reduce the reliance on the single occupant car and to provide a realistic choice for travel to the site by walking, car pooling, cycling or passenger transport.

WCC has adopted the Waitakere City Transport Strategy 2006-2016 and a Walking & Cycling Strategy which aim to reduce the reliance on the single occupant car through intensified land use at passenger transport nodes and corridors, through travel demand management measures, and providing attractive choices for walking, car pooling, cycling, passenger transport and working from home. Plan 6 in Appendix A shows proposed cycleways budgeted for 2006-2016.

### 6.1 Promoting Walking

Reduced Mobility. People with reduced mobility will be catered for via the provision of such standard design features as level or ramped interface between footpath and road at crossing points, set number of mobility parking spaces related to floor area of development and pedestrian intersection footpath markers for sight impaired.

Footpath widths and quality. Footpaths will be designed to WCC specifications, which are a minimum footpath width of 1.5m on both sides of the road.. In the town centres a high level of amenity and general quality will be required. At this stage detailed design has not begun.

Improved personal security. The proposed District Plan changes include requirements that buildings face the street, that routes are interconnected providing multiple options for leaving an area, there will be a mix of activities in the three plan change areas which will promote an active environment and passive surveillance, in many places residences will front parks providing surveillance and promoting walking (e.g. Hobsonville Airbase 'Greenway'). All major new development proposals are subject to a Crime Prevention Through Environmental Design audit to ensure that safety is designed in at the planning stage.

Safety and Access by Design. WCC has a policy of applying Safety and Access by Design standards in relation to walkways and how a development relates to and provides for pedestrians. Designing for walking is an integral part of planning work for NSGA.

Pedestrian routes, crossings and amenity. Preliminary concept designs for pedestrian routes and crossings have been included in concept plans developed to date. WCC does intend to commission work to identify options for improving walking access to Westgate, Massey North, Hobsonville Road, and the QTN services ARTA intend to run on it, including the crossing between the existing Westgate centre and the planned Massey North centre.

## 6.2 Promoting Cycling

Cycling to the site has been planned for in the WCC's Transport Strategy and Long Term Council Community Plan. A feasibility study on cycling in Waitakere City has identified proposed cycling routes in the north west. Proposed budgeted cycle routes are shown at Plan 6 in Appendix A. Further planning at the NSGA centres will be done as concept plans are developed.

Measures on junctions etc – detailed design of junctions, roundabouts, etc has not been undertaken. However, a concept plan for the stretch of Hobsonville Road between Westgate and Massey North has been prepared to show how various modes of transport can be catered for (See Plan 7 in Appendix A).

Cycling within the site is to be detailed in the Comprehensive Development Plan stage of the resource consenting process and in accordance with the standards of the District Plan, which include promoting cycling. Within the site cycling is expected to be a safe and viable option with easy access to a range of services. At the Hobsonville Airbase the light volumes of traffic on most roads and the 'Greenway' through the site facilitate cycling. The pedestrian and cyclist access to the high school that is proposed for the intersection of the Buckley Ave motorway ramps and the main 'Greenway' road will need to be carefully designed at the detailed stage and probably include signalised intersections. The District Plan rules include assessment of the extent to which cycling is safe, for example PC15 assessment criteria 27(o) *"The extent to which development promotes a safe environment for pedestrians, cyclists, including adequate lighting and appropriate location and design of entrances, windows and driveways."* It is planned to incorporate off-road shared walk / cycle paths in the 'green fingers' linking the Massey North town centre with the Massey North Employment area.

## 6.3 Promoting Passenger Transport

WCC takes a broad view of its role in passenger transport. WCC believes that it is not just enough to put in place the supporting infrastructure such as bus stops; bus and ferry shelters; bus interchanges and bus priority measures. This is because the success of everything related to infrastructure provision for passenger transport is intrinsically tied to the quantity and quality of services that use the infrastructure and, most critically, the number of passengers that choose to make use of these services.

To this end, WCC sees that it has a role in the promotion of passenger transport but recognises that this is supportive of, and adding value to the work done by ARTA who, by its mandate, has the leadership role in this area.

An example of where WCC could work in partnership with ARTA and service providers is the promotion of completed infrastructure such as bus interchanges; bus priority measures and the planned bus and ferry park and ride facilities. WCC also has a role in managing use of park and ride facilities and restricting use by local residents who could walk or cycle to catch a bus or ferry.

WCC has included a small budgeted amount in its Long Term Council Community Plan for a contribution to new bus services. WCC will work with developers to gain financial contributions to new bus services.

## 6.4 Car Access and Parking

The proposed changes to the District Plan rules are written so that parking requirements respond to the strategic goals of the plan. WCC has moved away from reliance on minimum standards (although these are still referenced in some of the proposed PC13, 14 and 15 with discretion to negotiate below the standards). In the Community Environment sections of PC13 and 15 WCC now intends to establish maximum parking standards. These would be set at the current minimum levels. This has the effect of ensuring WCC is able to negotiate parking provision in light of actual developer proposals, actual levels of passenger transport service and general TDM opportunities, where developers want to exceed maximum standards.

GB Arrington of Parsons Brinkerhoff has reviewed WCC's proposed carparking rules and supports the approach taken (See Appendix F of evidence by J Murray).

## 6.5 Organisational Measures

WCC is developing neighbourhood accessibility plan (NAP) guidelines that will be available for new and developing town centres. NAP guidelines are currently available for developed town centres only. Developers will be encouraged to use the new guidelines to assist with the implementation of travel plans that may include travel demand management measure such as ride sharing, improving access for pedestrians and cyclists, promoting passenger transport options and car park management systems.

## 6.6 Attitude Changes

School travel plans aim to reduce car trips to schools across the region by 10 per cent over a 10-year period by increasing the use of active, social, safe and sustainable travel choices including walking, cycling and public transport. School travel plans are proposed in the general Upper Harbour corridor area for 2011. (Hobsonville, Whenuapai, Colwill, Marina View, and West Harbour Schools and Timatanga Community School).

As part of a neighbourhood accessibility plan, local businesses will be encouraged to implement workplace travel plans to achieve more sustainable travel. Residents will be attracted to the NSGA with an understanding of limited local parking and a strong focus on sustainable alternatives to single occupant car travel.

# 7 APPRAISAL OF IMPACTS

### ITA Guidelines

Assess impacts using a 'multi-criteria assessment' tool presenting descriptions of the likely impact under the following main headings – environment, safety, accessibility, integration, economy, road impacts/ traffic impact assessments and parking impact analysis.

## 7.1 Environment

	Potential Impacts
Noise levels caused by transport using the site	Noise impacts will be minor. WCC has assessed the noise effects of truck movements on Hobsonville Road at Massey North (this is where noise effects will be worst) as less than an extra 2 dB(A) 1-hour L10. This means the additional noise will be inaudible to the ear.
Local air quality as affected by transport using the site	CO2 generation under the NSGA option - by 2051 households and workers in the area will generate 12.5% less CO2 (309 kg/yr) each on average than under the Do Minimum option.
Landscape, townscape heritage effects of transport using the site and the facilities made for transport use of the	The Hobsonville Airbase has a number of sites of heritage value and in itself has heritage value. The PC13 rules and policies identify these values and protect them. However, the nature of this site will be changed by the overall development.  PC14 and 15 areas have no particular heritage or landscape features that are to be

site	<p>affected by transport infrastructure beyond the overall change of the sites due to development.</p> <p>In all areas design criteria are imposed to have buildings face the street and car parks placed at the back of buildings.</p>
Routing agreements for heavy commercial vehicles	The concept plan for Massey North and associated District Plan rules will require a road layout that directs trucks onto Hobsonville Road (west) rather than through the town centre. WCC can also enforce by-laws to route trucks out of the town centre.
Off site effects, e.g. rat running	WCC can enforce by laws to stop rat running through the Massey North centre. Traffic modelling indicates that vehicles will use the state highways and District arterial roads rather than rat running.

## 7.2 Safety

	Potential Impacts
Risk of accidents for those using and passing by the site	All transport assets will be designed to at least WCC transport asset design standards.
Personal security of those using and passing by the site	Personal security is addressed through District Plan rules in terms of surveillance, lighting, building frontages. This matter will be assessed further at the Comprehensive Development Plan stage.

## 7.3 Accessibility

	Potential Impacts
Changes in access to transport systems	There will be significant changes in access once the state highway changes are made and bus services are improved. WCC has accounted for these in its planning work.
Accessibility changes in the local area	Accessibility within the local area will be provided by an integrated network of roads and public reserves; these will facilitate walking and cycling to the main trip attraction areas. Bus transport will be supported by bus priority measures. Ferry infrastructure is to be provided improving access to the CBD.
Community severance (or linkage)	Community severance between the new developments and the existing suburbs will be improved by the realignment of SH18. This will significantly reduce traffic on Hobsonville Road east of Massey North to about 10,000 veh/ day and assist pedestrian access to the new employment / service areas.

## 7.4 Integration

	Potential Impacts
Links with other policy areas	As discussed above the development proposed by WCC is consistent with the ARGs, ARPS and ARLTS. WCC proposals support ARTA's PTNP and WCC's Transport Strategy.
Links between transport systems	The proposals for the area link well to the proposed road developments by TNZ and the proposed bus service investments by ARTA.
Links with other land uses	The proposals are a very important contribution to the sustainability of the existing Massey suburbs in so far as they reduce the need to travel for work, services and leisure. The proposals form part of WCC's long standing strategy of having three sub-regional centres.

## 7.5 Economy

	Potential Impacts
Effects on the economic efficiency and vehicle operating costs of transport in the local area	<p>An economic impact assessment<sup>4</sup> of the NSGA proposal has found that it will produce a GDP output of \$224,919 million in 2011 (compared to \$12,750 million under the Do Minimum option) and 8,815 jobs and 608 jobs respectively.</p> <p>The NSGA proposal has significant effects in terms of reducing average trip length by about 3.8km at 2051. The proposals also make more efficient use of road infrastructure by promoting 'reverse' commuting and reducing pressure to build new roads. Growing the residential and employment size in this area will help promote the efficiency of bus services due to increased patronage.</p> <p>The NSGA proposal will off set the problems that will arise when North Shore runs out of vacant employment land in the near future.</p>

## 7.6 Road Impacts / Traffic Impact Assessments

A range of road investments will be needed to cater for the increased growth in vehicle movements; these are reviewed in Mr Hill's evidence at sections 10 to 15. These investments have been identified at a concept level and TNZ has agreed that they are feasible. The proposed road network can cater for traffic volumes through to 2051 so long as TNZ's proposed investments in SH16 and SH18 are implemented.

The bus infrastructure investments being proposed by WCC will be more than adequate to accommodate the bus service levels proposed by ARTA to 2016.

Provision for cycling within the Hobsonville Airbase and Massey North centre should be of a high standard and routes can be designed that cater for all cycling levels through these areas. The link between North Shore and Hobsonville airbase, over the new Upper Harbour Bridge, provides a safe link to Greenhithe.

<sup>4</sup> Brent Wheeler Ltd & The Answer Company, September 2006. *North Western Strategic Growth Area EIA*. p.25

Provision for cycling will be made along Hobsonville Road and linking into the North Shore across the new Upper Harbour Bridge being completed by TNZ. This route will provide for confident cyclists (sports / journey to work) but will not be ideal for less confident riders (school). An off road route has been designed along the SH18 realignment, this will be suitable for all cycling skill levels but is not intended to be built within the next 10 years.

Provision for pedestrian movement within the PC 13, 14 and 15 areas should be of a high standard as these are essentially Greenfield developments and the traffic volumes within these areas will not necessitate difficult compromises between vehicles and other modes. The District Plan policies and rules have been written to require provision for safe pedestrian movement and other factors, such as mixed use development and design rules that promote surveillance will facilitate walking.

Pedestrian movement along Hobsonville Road will be provided by existing footpaths and new footpaths built as development proceeds.

Pedestrian crossings of Hobsonville Road between Westgate and Massey North are an area where WCC is continuing to develop proposals. Traffic volumes will be highest here. There will be three town blocks fronting this section of road between the motorway and Don Buck Road. The ADTs for each block (west to east) are 16,600 vpd, 19,900 vpd and 38,700 vpd at 2051. This compares to Great North Road Henderson (17,400 vpd), Great North Road New Lynn (25,600 vpd), St Lukes Road at St Lukes Centre (22,500 vpd) and Mount Wellington Highway near Ellerslie (32,500 vpd). Also, the width of the road (21m) is comparable to sections of Great North Road in New Lynn (21m) and Henderson (18m). The crossing distances proposed are not exceptional and can be managed through design. WCC intends to continue working on the design of this section with TNZ.

The existing housing area to the south of Hobsonville Road has a number of pedestrian linkages from Hobsonville Road into the local roads that were built in the 1960s – 1980s and do not provide a high level of safety in terms of surveillance and 'escape' routes. WCC intends to commission further work to identify how these areas can be improved. Note, however that these areas are outside the MUL shift application.

## 7.7 Parking Impact Analysis

Appendix E of evidence by J Murray provides a review of the way in which car parking is to be managed through the District Plan, including proposed alterations to the notified Plan changes in response to submissions. No assessment of car parking numbers has been made at this time. Car park numbers will be tied back to the timing and scale of development, however, the District Plan policies and rules allow developers to negotiate parking numbers down and in some places no parking and parking caps are required. Given that developers are able to negotiate below District Plan standards (where those are imposed) and there are also parking caps in some places it is not possible to accurately estimate parking numbers at this stage in the programme.

WCC has asked GB Arrington of Parsons Brinkerhoff to review its parking proposals<sup>5</sup>. Mr Arrington is a recognised expert in the development of liveable, mixed use communities and their integration with transport. Mr Arrington concludes that *"WCC's approach to parking management as outlined by the Proposed Plan District Changes is sound and consistent with their vision of concentrating development and encouraging growth in designated centres"*.

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<sup>5</sup> Refer to Appendix F of evidence by Jeff Murray to LGAAA Joint Hearing Committee, Transport topic 31 October 2006.

## 8 MITIGATING IMPACTS

### ITA Guidelines

The key role of the ITA is to ensure that developments are designed and implemented in such a way that they promote access by all modes and manage demand to avoid unacceptable impacts on local road networks and the state highways.

The proposed shift of the MUL and subsequent land and transport developments will produce significant changes in the existing transport patterns in that area. These changes have been considered in detail and WCC has identified ways in which adverse effects can be managed.

WCC has also identified ways in which opportunities to reduce reliance on private vehicle travel can be promoted and has taken relevant steps to achieve that end through the proposed changes to the District Plan, planning investments in road, passenger transport, cycle and pedestrian infrastructure and through negotiations with developers and other relevant authorities (especially TNZ and ARTA).

WCC intends to continue working on the provision of quality walking opportunities to the proposed development areas across Hobsonville road.

## 9 SUMMARY AND CONCLUSION

The extensive analysis provided by WCC to support its application to move the MUL shows that it will provide significant benefits to the region and the city and that the proposals are consistent with and help to deliver regional strategy. It is important that the MUL shift being sought by WCC is made now so that investments can proceed to:

- a) Reduce the extent to which the current Massey suburbs are starved of local jobs and services, and reduce travel from these areas to find jobs and services.
- b) Off set the problems that will arise when North Shore runs out of vacant employment land in the near future and help meet obligations to the ARGs and NWSA in terms of employment land provision in this area.
- c) Help build the sustainability of the Henderson – Massey North – Albany area and reduce the need to travel from this north west sector into the central and southern sectors.
- d) Support employment and economic development by providing a projected 8,815 new jobs by 2011 and a GDP output of \$224,919 million in 2011.
- e) Reduce trip lengths (relative to do minimum) which will provide significant benefits in terms of fuel use, costs of travel, travel time and CO<sub>2</sub> emissions.
- f) Support intensification at New Lynn and Henderson by providing a critical mass for economic development, attracting to Massey North a type of business that is poorly represented in the city (motorway access dependant), reducing traffic pressures in Henderson and New Lynn (enabling intensification of these places) and creating better links with North Shore and southern Rodney.

- g) Support ARTA's proposed investments in passenger transport, and promote walking and cycling. The location of employment, residential, and services on this corridor supports the QTN services proposed by ARTA and mandated in the ARLTS.
- h) Utilise investment in SH18 and SH16 extension, promote contra-peak use of major roads and reduce pressures to develop roads elsewhere.
- i) Take up opportunities with current land owners to promote sustainable transport and land use outcomes.

The proposed new MUL boundary also meets requirements of the Local Government (Auckland) Amendment Act 2004 to provide certainty, in that the new boundary (beside the airbase noise corridors and the new motorway) will be far more defensible than the existing one once SH18 is realigned.

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## 10 REFERENCES

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## 11 APPENDIX A