Further Response from HealthWest Partnership to the Senate Committees on Community Affairs: Australia's domestic response to the World Health Organization's Commission on Social Determinants of Health report – *Closing the gap within a generation*

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Thank you again for the opportunity to address the Senate Community Affairs Committee regarding their inquiry into Australia's domestic response to the WHO Commission on Social Determinants of Health Report "Closing a Gap within a Generation".

On request from the Committee, we are providing additional information and/or comment with regards to a food mapping case study provided during the hearing, and regarding the submission to the Committee from the Department of Health and Ageing.

1. Food Outlet Mapping Project

Attached is the regional report HealthWest prepared to summarise the work undertaken in the past four years focused on improving access to nutritious foods. The mapping results are graphically represented in Food Access Profiles which can be viewed at:

http://www.healthwest.org.au/programs-and-projects/prevention-integrated-health-promotion/integrated-health-promotion-network/access-to-nutritious-food-food-security.html#profiles (files too large to be emailed).

As discussed during the hearing, local governments have limited legislative ability to deter or restrict takeaway outlets being established in their municipality. This is due to the State government having responsibility over planning legislation, which does not specify public health and wellbeing as an objective. There is also a lack of strong evidence/research that directly links takeaway outlet density to health outcomes, and a lack of precedent in local governments succeeding in their denial of planning applications; therefore there's limited drive for local governments to challenge such applications. Furthermore, the large number of failed planning decision challenges is due to, in our opinion, an emphasis on economic growth rather than considering social determinants of health within the planning legislation. Despite this, there are a range of actions that can and are being undertaken by local governments. The following case study provides an example of a range of strategies being undertaken by one local government in the HealthWest catchment to improve access to nutritious foods.

Maribyrnong City Council Food Security Policy 2011-2013

Maribyrnong City Council (MCC) has developed a food security policy which is currently being implementing. The policy has five commitment areas, outlining a range of strategies to address the determinant of access to nutritious foods. Strategies are focused on influencing the environments for health (economic, built, social and natural environments), which builds on the strengths and the unique abilities of local government. Initiatives target the whole municipality, groups and individuals, with work being implemented through strong with other agencies including intergovernmental departments as well as other internal organisational departments.

MCC Food Policy commitment areas, with an example of strategies being undertaken, are:

1. Intergovernmental collaboration, i.e. working with other council departments/programs such as transport and land use to create a 'food security lens'
2. Integrated planning to create supportive environments, i.e. improving food access through activities such as expanding and establishing community gardens, trialling street planter boxes, and exploring the possibility of incentives for fruit and vegetable businesses.
3. Advocacy, i.e. advocating to Victorian Department of Transport for increased services to areas with poor access to nutritious foods; advocating to Victorian Office of Housing for storage and cooking facilities in rooming houses.
4. Community capacity and resilience, i.e. supporting social enterprise, food cooperatives and urban production; ensuring/encouraging a cultural diversity lens and gender lens is applied to community food security activities.
5. Research, monitoring and evaluation, i.e. repeat the mapping projects; evaluation of food security policy.

The MCC food security policy has been a key enabler to embedding initiatives to improve food access into all council departments, as well as linking to other social determinants of health such as housing and transport.

The food security policy is available on the Maribyrnong City Council website:
http://www.maribyrnong.vic.gov.au/Page/Page.aspx?Page_Id=319

2. Department of Health and Ageing (DoHA) submission to the Committee

In our submission we raised the issue of Commonwealth government policy and programs being narrowly focused in their conceptualization of social determinants of health. Programs such as the Healthy Communities Initiative and the ANPHA social marketing campaigns predominantly focus on changing the health behaviour of individuals. At the hearing, we emphasised the problems with focusing only on influencing individuals without considering the context of their lives. This context is important to consider as those experiencing social, economic or entrenched disadvantages are likely to be less receptive of health messages delivered through mass social media campaigns, less likely to act on health messages, and less likely to take up interventions such as healthy eating programs or subsidised gym memberships. We referenced the hierarchy of needs as an indicator of why this approach as limited for many of the communities we work with.

Policy and programs that aim to change individual's behavior are very unlikely to impact the social determinants of health. We borrow an analogy from Papaarangi Reid from University of Auckland that was used in her presentation at the Population Health Congress in Adelaide earlier this year to illustrate the benefits of responding to a crisis at a systemic level, rather than at an individual level.

Responding to the Titanic disaster to prevent similar disasters required a complex set of strategies; reviewing systems, structures, and the barriers that limited the safety of passenger groups or resulted in their certain death. We can imagine that the processes of keeping watch at night in high risk areas were reviewed, that new crisis management processes were enforced, that there were new regulations developed to ensure adequate numbers of life boats to provide safety for all their passengers, and that groups of passengers were no longer blocked from upper decks (notably the most disadvantaged groups).

We see responding to the social determinants of health to prevent the unfair difference in health outcomes between population groups and responding to disease epidemics as similarly needing a complex set of strategies. The current focus of programs on changing individual's behaviours is equivalent to teaching people to swim to prevent Titanic–like disasters. It is a limited and inadequate response.

On review of the DoHA submission, it was not clear that social determinants were being considered as complex, interlinked and requiring comprehensive response, as would be expected if a Health in All Policies approach was adopted. We have responded specifically to the some of the initiatives DoHA put forward as case studies to demonstrate their social determinants approach.

Case Study 3. National Partnership Agreement on Preventative Health (page 21)

It is our perspective the National Partnership Agreement on Preventative Health does not currently have an explicit focus on social determinants. Taking a social determinants approach in the initiatives used in the case studies would mean an expansion of the examples given, and we have provided suggestions of what that could entail.

The "Healthy Communities Initiative" *supports a…roll out of community-based healthy lifestyle programs which facilitate increased access to physical activity, health eating and healthy weight activities for disadvantaged groups and those not in the workforce.* Taking a social determinants approach would look more like pathways for training and employment to support those disadvantaged groups to increase their economic status rather than focusing on health behavior change as the Initiative does now. This type of approach is supported by the evidence that clearly links income and health outcomes, whereas short term programs subsidizing gym memberships will be limited in sustainability of any individual outcomes.

In the case of Healthy Workers, taking a social determinants approach may look like comprehensive programs that examines discrimination and gender equity issues within the organization including recruitment and human resources policies, and organizational culture.

Case Study 6. Urban Planning (page 24)

The inclusion of this case study was of interest to us considering the overlap with the findings from our food mapping and advocacy efforts we are taking to influence urban planning for healthy

environments. The initiatives in the National Urban Policy have much merit. Unfortunately, the reality we see in the Victorian urban planning space would indicate that the Commonwealth government has limited influence in urban planning. For example, Victoria state government has developed a discussion paper for its Metropolitan Planning Strategy. There is limited consideration given to health and wellbeing, despite the physical environment impacting greatly on people's health e.g. walkability, open space, access to essential services. The Victorian Department of Health was not consulted in the development of the discussion paper. In fact, the health sector was not consulted in any way. This highlights the shortcomings in the extent that a social determinants approach is being adopted in urban planning, and we are not sure that Commonwealth resources are best directed to initiatives where they hold limited jurisdiction. Furthermore, it is questionable that this is being highlighted by DoHA as an example of successful work within a social determinants approach.

Case Study 7. Gender Equity (page 25)

From our perspective, this case study provided the best DoHA example of work being done with a social determinants approach. The initiatives described are focused on influencing change in the systems and cultures that drive and maintain gender inequities, specifically in workplace. Strategies undertaken include developing supportive legislation, standards and funding commitment to support remuneration equality.

In our submission, we provided a case study of *Preventing Violence Together*, a whole of region action plan to prevent violence against women that HealthWest are implementing as a partnership of local government and community and women's health agencies. The work of *Preventing Violence Together* is led by the women's health agency in the catchment and is focused on embedding gender equity in partner organizations, for example, in their policies, planning, recruitment and programs. This project recently was awarded with a Victorian Health Promotion Award. The work done at the Commonwealth government level supports implementation of our local gender equity work.

The recent Anti-Racism Partnership and Strategy is another initiative that describes Commonwealth government work that is taking a social determinants approach.

Medicare Locals (page 17)

We note that the DoHA submission references Medicare Locals (ML) as part of its response to the extent in which the Commonwealth government is adopting a social determinants approach (page 17). We raised the risks that Medicare Locals will fall short of implementing programs that influence social determinants during the hearing with the Committee. The timelines MLs are given to undertake needs assessments and submit applications for ANPHA funding rounds limit the ability of MLs to accurately assess the population health needs, and develop the necessary partnerships with local governments and community/health services to influence determinants. The risk is that MLs will use ANPHA funds to implement strategies that support tertiary prevention, i.e. prolonging the progression of and preventing the complications of diseases. The DoHA response highlights the pilot project in Tasmania that *seeks to reduce inequalities in health and improve health outcomes*, which was encouraging. It may have been more effective use of Commonwealth funds to await the results of the pilot study before allocating significant ANPHA funds to MLs, where there is no guarantee approaches will focus on addressing social determinants of health.

Healthy Foods for Healthy Communities

Issues of food access and availability in the west

June 2012

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The projects and sources of data that are described and discussed in this report have been undertaken by organisations on the Food Security Network, or partnerships between FSN members. HealthWest would like to acknowledge these organisations for their willingness to share findings and results for the purpose of this report. The Food Security Network is comprised of representatives from the following organisations:

- Brimbank City Council
- Djerriwarrh Health Services
- Doutta Galla Community Health
- Hobsons Bay City Council
- ISIS Primary Care
- Maribyrnong City Council
- Melton Shire Council
- Moonee Valley City Council
- Western Region Health Centre
- Wyndham City Council

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Executive Summary

Food security is defined as "the state in which all persons obtain nutritionally adequate, affordable, culturally acceptable, safe food regularly through local non-emergency sources".[1]

There are four main determinants of food security:

- Food Access
- Food Availability
- Food Utilisation
- Stability of the above determinants[2]

Food security is a long standing issue in the west that has far-reaching consequences beyond dietary intake. The aim of this report is to present the common food security issues in the west based on the findings from three data sources: the food outlet mapping, the Victorian Healthy Food Basket (VHFB) surveys, and community consultations. The findings of this report can be used to inform the planning of food security initiatives, and will support the identification of opportunities for collaboration and advocacy in regards to improving food security in the west.

The results of the food outlet mapping, the Victorian Healthy Food Basket surveys and the community consultations point to a number of common food access and food availability issues in the west.

The main issues that affect food access in the west are:

- high cost of healthy food
- low income
- lack of public or private transport

The main issues that affect food availability in the west are:

- fruit and vegetable deserts
- disproportion between the number of fresh fruit and vegetable outlets in comparison with take away outlets
- lack of culturally appropriate food

Based on the key food security issues identified in the west that have been presented in this report, the following recommendations are proposed to improve access and availability of fresh food in the west:

1. Support community initiatives promoting access to affordable healthy food (e.g. farmers markets, food swap).
2. Establish partnerships with local stakeholders including community and health services, council, community groups and local business interest groups, to ensure equitable distribution of resources to vulnerable community groups.
3. Advocate to local council and relevant decision makers to improve the access to nutritious foods by improving transport links to food outlets (e.g. new or altered bus routes, cycle paths, community buses).
4. Advocate to local council and relevant decision makers to improve the access to nutritious foods by regulating the number and type of food outlets licensed in the west.
5. Support development of urban food production in the fruit and vegetables deserts (e.g. public space food production, community gardens, and private gardens).

6. Develop a means of evaluating the access to culturally appropriate foods (e.g. develop a cultural healthy food basket).
7. Integrate determinants of food security (i.e. transport, employment and housing) across organisational policies and programs.
8. Develop evidence based strategies addressing the determinants of food security.

In addition, a number of recommendations for the HealthWest Food Security Network were made to guide future work, as outlined in Chapter 5.

CHAPTER 1

Introduction to Food Security in the West
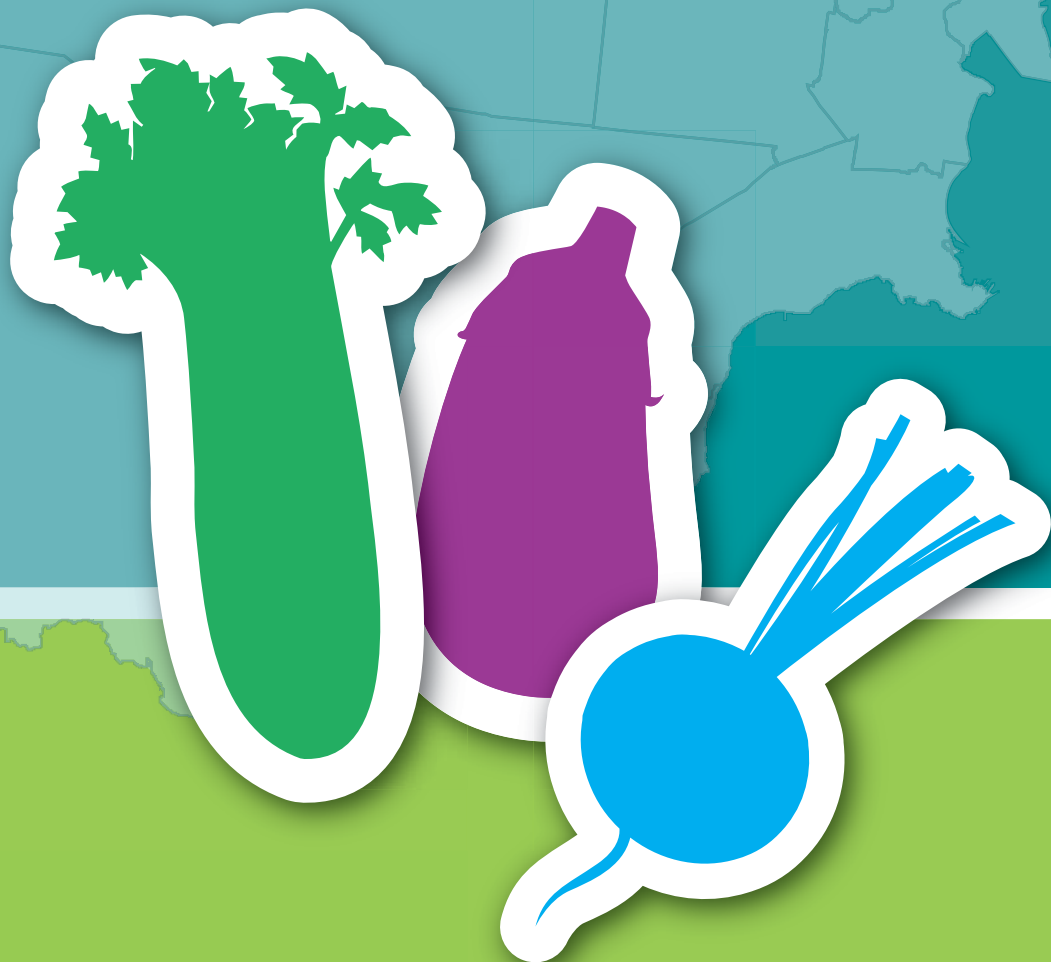
CHAPTER 1 Introduction to Food Security in the West

1.1 Background

1.1.1 What is HealthWest Partnership

HealthWest Partnership is a strategic alliance of two Primary Care Partnerships (WestBay Alliance and Brimbank Melton Primary Care Partnership) covering the local government areas (LGA) of Brimbank, Hobsons Bay, Maribyrnong, Melton and Wyndham (referred to as "the west" in this report). HealthWest brings together 26 health and community organisations and local councils in a voluntary alliance to strengthen coordination and input into healthy public policy, prevention, early intervention and chronic care initiatives. The partnership is committed to supporting an integrated approach to strengthening the local communities' health and wellbeing.

1.1.2 What is Food Security

Food security is defined as "the state in which all persons obtain nutritionally adequate, affordable, culturally acceptable, safe food regularly through local non-emergency sources". [3]

Conversely, food insecurity is the lack of consistent access to safe, nutritionally adequate, affordable, culturally acceptable food from non-emergency sources. [4]

There are four main determinants of food security:

1. Food Access
2. Food Availability
3. Food Utilisation
4. Stability of the above determinants [5]

Food Access is the ability of consumers to obtain safe, affordable, culturally appropriate and nutritious food. Access is determined by factors such as financial resources, physical mobility and the distance and availability of transport to food stores, as well as food preferences.

Food Availability addresses supply of food and is determined by factors such as the location and accessibility of food outlets, the availability of food within outlets, as well as the price, quality, variety and promotion of food.

Food Utilisation includes food preparation, cooking and storage facilities, and incorporates issues of food safety. [6]

Food insecurity has far-reaching consequences beyond the physical health impacts of poor nutritional intakes, poor self-reported health and chronic disease. [7] The social and mental health impacts include mental distress, anxiety and depression, loss of dignity, lack of control and social isolation. [8]

1.1.3 What is the Food Security Network

Food security is a long standing issue in the west and was identified as a health promotion priority for HealthWest Partnership in 2009. The need to address food security issues has been identified in a number of State Government policies, including:

- Victorian Health Promotion State-wide Priorities for 2009-2012
- A Fairer Victoria 2010
- Victorian Public Health and Wellbeing Plan 2011 – 2015
- Environments for Health – Municipal Public Health Planning Framework 2001
- Victorian Families Statement 2011

HealthWest established a Food Security Network (FSN) in early 2009 to create a more collaborative and strategic approach to addressing food insecurity. The FSN formed with the aim of enhancing a regional approach to increase access to nutritious food for communities of the western region of Melbourne.

The goals of the Food Security Network are to:

- Raise awareness of food security to other sectors beyond health

- Build on strategic/joint advocacy
- Develop a data profile for the region
- Develop submissions for the western metropolitan region
- Improve collaboration among stakeholders

Members of the Food Security Network include:

- Brimbank City Council
- Djerriwarrh Health Services
- Doutta Galla Community Health
- Hobsons Bay City Council
- ISIS Primary Care
- Maribyrnong City Council
- Melton Shire Council
- Moonee Valley City Council
- Western Region Health Centre

Wyndham City Council Following its establishment, the FSN identified the development of catchment profiles relating to community food access as one of its objectives. Informed by the experiences of the Melton Shire City Council, Brimbank City Council and Maribyrnong City Council, through the *Food for All*[*] initiative, the FSN undertook to develop Food Access Profiles. At this time, no data existed examining the whole of the western region and its risks of food insecurity. The Profiles are catchment-wide, evidence-based resources that demonstrate the scale of food insecurity in the six LGAs across the western metropolitan region of Melbourne including Brimbank, Hobsons Bay, Maribyrnong, Melton, Moonee Valley and Wyndham. They can be used to support advocacy and evidence-based food security initiatives.

Each Food Access Profile includes:

- Food outlet mapping, including:
  - the location of fruit and vegetable outlets
  - the location of takeaway outlets
- findings from the Victorian Healthy Food Basket (VHFB) survey
- information about vulnerable populations with the aim to make recommendations for changes specific to the local government area.

In addition, data for all six LGAs was collated on regional maps which included Socio-economic Index For Areas (SEIFA), areas with 400 metre access to fresh food outlets and major transport routs to provide a catchment wide picture.

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[*] VicHealth's Food for All program aimed to help people to regularly access and consume a variety of nutritious foods, particularly fruit and vegetables. The program was run over five years in partnership with local government and concentrated on priority populations. Food for All aimed to encourage local government authorities to improve integrated planning of key factors that influence access to food: transport, housing, economic development and land use. Participating local councils took the lead in reducing barriers to accessing healthy foods in their communities. More information http://www.vichealth.vic.gov.au/foodforall

1.2 Report aims and objectives

This report aims to:

- present the common food security issues in the west that have been identified in food outlet mapping, Victorian Healthy Food Basket (VHFB) surveys and community consultations
- inform the planning of food security initiatives across various settings to respond to these issues
- support regional coordination and identify opportunities for collaboration and advocacy in regards to improving food security in the west

1.3 Context setting: demographics of the HealthWest catchment

Section 1.3 outlines the extent of food security in the west, the socio-economic status of the population, and the prevalence of health conditions associated with food intake, and hence impacted by food insecurity.

Shifting demographics

The Western Metropolitan Region is characterised by rapid growth, high cultural diversity and higher than state average levels of disadvantage. However within the region there is socio-economic diversity, with gentrification in the inner west, entrenched disadvantage, and rapid growth in the outer west. The HealthWest catchment includes two of the fastest growing LGAs in Australia (Shire of Melton and City of Wyndham). Communities in the fast growing areas can be significantly disadvantaged if infrastructure and services fail to keep up with population increases. Conversely, poorly serviced areas are likely to feel increased demand in fast growing municipalities.

1.3.2 The extent of food insecurity in the west

Food security was measured as part of the 2008 Victorian Population Health Survey. Respondents were asked if there had been any times in the previous 12 months when they had run out of food and could not afford to buy more.

According to the results, a higher percentage of adults living in Maribyrnong (9.1%), Melton (6.1%) and Wyndham (5.8%) had experienced food insecurity, compared to 5.8% in the Northern & Western Metro Region and the Victorian State average of 5.6%. This data is likely to underestimate the true extent of food insecurity as it does not include dependants and it is unlikely to include data from those at most risk of food insecurity, such as those who are homeless and those from a non-English speaking background.[†]

Furthermore, the survey provides information as to why adults do not always have the quality or variety of food they want, with 30.1% of respondents in the North and West Region reporting that some foods were too expensive, 27.3% reporting they could not always get food of the right quality, 11.5% reported they could not always get the variety of food they wanted, 7.7% reported they could not always get culturally appropriate foods and 8.4% reported inadequate or unreliable public transport made it difficult for them to get to the shops (see Table A1 below).[9]

[†] The Victorian Population Health Survey has been conducted each year since 2001, and previously was based on a sample of 7500 adults aged 18 years and over, randomly selected from households from each of the eight Department of Health regions in the state. In 2008, computer-assisted telephone interviewing was undertaken between August and December, and the sample was expanded to 34,168 and taken at the local government.

Table A1: Reasons why people don't always have the quality or variety of foods they want. *2008 Victorian Population Health Survey*

	I don't always have the type of food I want because….				
	Some foods are too expensive	Can't always get right quality	Can't always get right variety	Can't always get culturally appropriate food	Inadequate and unreliable public transport
Brimbank	42.3%	35.5%	17.5%	11%	11.1%
Hobsons Bay	30.1%	25.5%	9.9%	8%	5.6%
Maribyrnong	30.5%	29.1%	12.4%	10.5%	12.9%
Melton	30.3%	28.7%	10.1%	6.8%	9.8%
Moonee Valley	21.5%	18.1%	9.3%	3.2%	7.7%
Wyndham	35.6%	33.6%	12.6%	8.3%	8.6%
North and West Region	30.1%	27.3%	11.5%	7.7%	8.4%
Victoria	28.3%	25.5%	10.9%	6.8%	8%

1.3.3 Socio-economic status

People on a low income and/or unemployed are vulnerable to food insecurity.[10] Section 1.3.3 outlines socio-economic data for the west including Socio-economic Index for Areas (SEIFA), financial stress and unemployment rates.

Socio-economic Index For Areas (SEIFA)

All six LGAs are in the SEIFA top 14 (out of 31) greatest disadvantaged communities, within the Melbourne Statistical Division. Brimbank and Maribyrnong rank 2nd and 3rd respectively. This indicates that there are a larger proportion of low income families and people working in unskilled occupations with minimal training. Hobsons Bay and Melton follow as 9th and 10th respectively, Moonee Valley 12th and Wyndham ranks as the least disadvantaged LGA within the HealthWest catchment, ranked 14th.[11]

Financial stress

The Victorian Population Health Survey asked respondents 'If you needed to, could you raise $2000 within two days in an emergency—this includes accessing 'own' savings, borrowing money, or using a credit card / bank card?'. The results are one indicator of financial stress, with those unable to raise $2000 within two days in an emergency being considered particularly vulnerable to issues such as food insecurity. Compared with the Victorian average (11.5%) a higher proportion of persons living in Brimbank (18.9%), Maribyrnong (18.6%), Melton (14%), Moonee Valley (12.1%) and Wyndham (14.3%), identified that they would be unable to raise $2000 within two days.[12]

Unemployment

The unemployment rate in Brimbank, Hobsons Bay, Maribyrnong, Melton and Wyndham is higher then the Victorian State average of 5.5% (see figure A1 below).[13]

Figure A1: Estimates of unemployment rates, by LGA. *2006 ABS Census of Population and Housing*
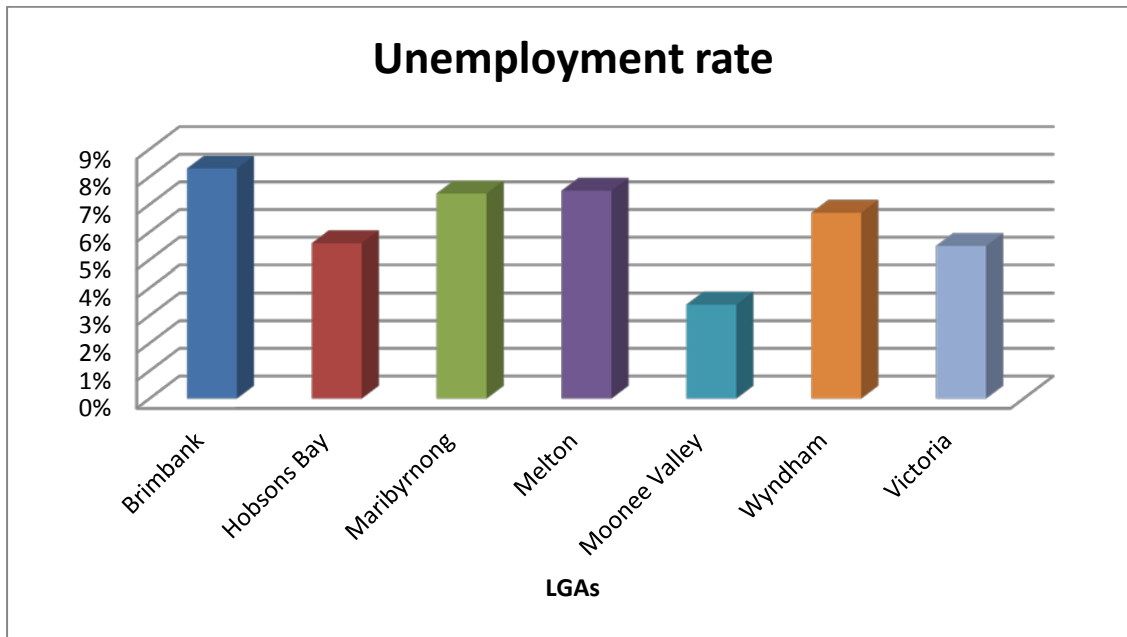
1.3.4 Cultural diversity

People from non-English speaking backgrounds are more vulnerable to food insecurity than people from English speaking background.[14] The HealthWest catchment is home to a significant proportion of people born overseas in predominantly non-English speaking (NES) countries (see Figure A2 below).[15] Compared with the Victorian average, a high proportion of residents across the western LGAs were born overseas and speak a language other than English at home.

Figure A2: Language background and overseas born. *2006 ABS Census of Population and Housing*
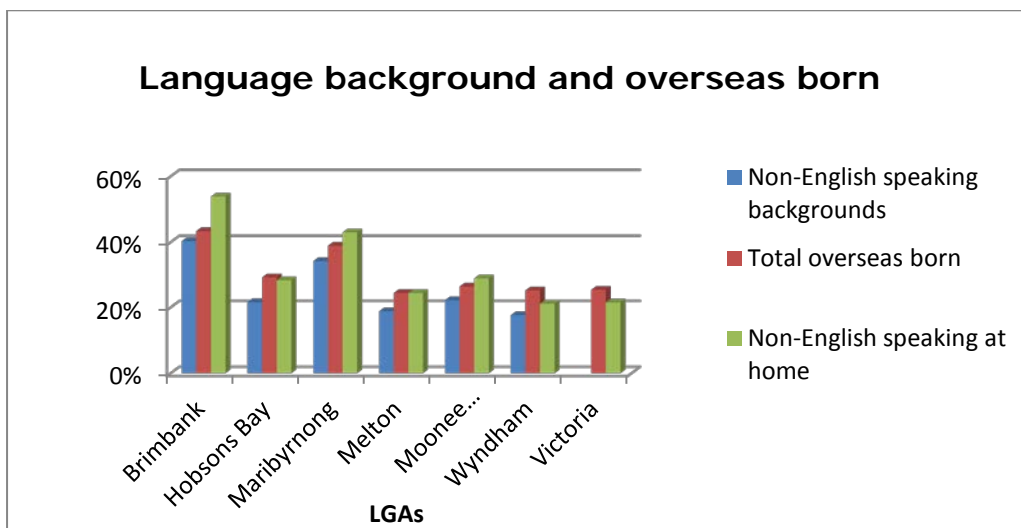
1.3.5 Health status

People experiencing food insecurity are more likely to be overweight or obese which may lead to other health related issues such as diabetes and cardiovascular disease.[16] The prevalence of certain health outcomes in the west which can be associated with food insecurity is higher then state levels.

Table A2 below shows the prevalence and incidence of particular health outcomes across each LGA in the west. Percentages for particular LGAs that exceed the state average by more than 25% are highlighted in red.

Table A2: Percentage of prevalence and incidence of conditions in Western LGA population. *Better Health Plan for the West, 2011*

Health Outcome		Brimbank	Hobsons Bay	Maribyrnong	Melton	Moonee Valley	Wyndham	VIC
Prevalence of cardiovascular disease		1.8	2.3	2.7	1.3	1.2	1.2	2.1
Obesity measured in Body Mass Index (BMI)	BMI ≥30.0 (Males)	23.3	18.0	13.0	22.5	23.2	23.9	17.3
	BMI ≥30.0 (Females)	18.4	13.7	10.2	24.5	12.3	18.9	16.1

Three of the six LGAs (Brimbank, Hobsons Bay and Moonee Valley) in HealthWest catchment are considered diabetes 'hotspots', with prevalence of diabetes greater than 4% of the population(see Figure A3).

Figure A3: Proportion of people with diabetes in LGA. *2011 Diabetes Australia Victoria*
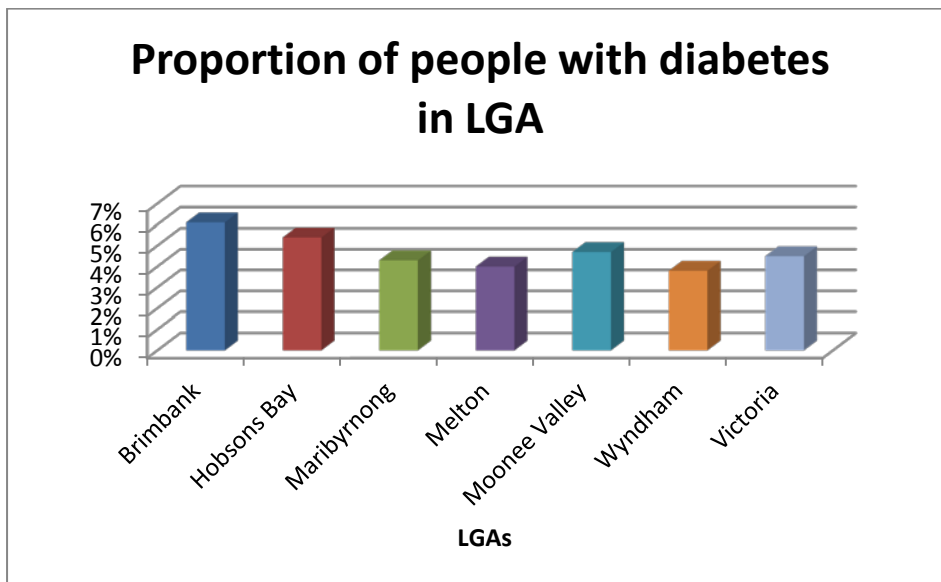
CHAPTER 2

Methods for Assessment of Food Security

CHAPTER 2 Methods for Assessment of Food Security

There have been three recent activities assessing elements of food security in the west:

- Mapping of the location of the food outlets
- Victorian Healthy Food Basket Survey
- Community consultations that have included components of food security

The methodology used in each of the activities is presented below.

2.1 Food outlet mapping

2.1.1 Mapping process

In 2010 food outlets were mapped across the 6 western region LGAs (Brimbank, Hobsons Bay, Maribyrnong, Melton, Moonee Valley and Wyndham). The main purpose of the mapping was to determine physical access to nutritious food in the western region of Melbourne. The maps were created by collecting data on the types and locations of food outlets within each LGA using Geographic Information System (GIS) mapping software. Major transport routes and SEIFA were included in regional maps. The mapping process highlighted the areas and populations where the access to fruit and vegetables was most limited.

Alcohol outlets were also mapped in Brimbank, Hobsons Bay and Maribyrnong.

The HealthWest categories to map food outlets were based on the *Brimbank Food Mapping* initiative and the *Food Security in Moreland* tools. See appendix A for details.

2.1.2 Food desert

Food deserts are "areas in the city where cheap, nutritious food is virtually unobtainable within a 500m (6 minutes walk) radius."[17] A number of factors must be taken into account when discussing food deserts, such as car ownership, topography and public transport. Although distance alone is not an accurate indicator of the accessibility to food outlets, it is one way to measure risk of food insecurity.[18]

For the purpose of the Food Access Profiles, the LGAs of Brimbank, Moonee Valley, Melton and Wyndham used the term food desert in reference to areas where residents lived greater than 400 metres from a fruit and vegetable outlet. Hobsons Bay and Maribyrnong used the term in reference to areas where residents lived greater than 500 metres from a fresh food outlet.

For consistency the regional maps used a 400 metre radius to define food deserts.

See section 3.1 for mapping results.

2.2 Victorian Healthy Food Basket Surveys

2.2.1 What is the Victorian Healthy Food Basket survey?

The Victorian Healthy Food Basket (VHFB) Survey is the most recent tool developed to measure food cost for people living in the state of Victoria in relation to family composition, food choices and food accessibility.[19]

The VHFB was developed by Monash University in December 2006. Demographic and food purchasing data were used to define the family types and foods in the healthy basket, respectively. The revised Nutrient Reference Values were used to benchmark the nutritional adequacy of the basket.[20]

2.2.2 Method

A survey of the cost of food using the VHFB was conducted in a selection of stores across Victoria in 2010. The VHFB consists of 44 core and non-core foods, selected according to the Australian Guide to Healthy Eating.[21]

The "basket" provides adequate food to meet the nutritional needs of families most common in Victoria and those most vulnerable to food insecurity for a fortnight. The family types include:

- typical family (44 year old male and female, 18 year old female, 8 year old male)
- single parent family (44 year old female, 18 year old female, 8 year old male)
- elderly pensioner (71 year old female)
- single adult (adult male >31 years).[22]

The cost of the basket is compared with the fortnightly government unemployment benefits received by each different family type. This income was determined using government Centrelink data and with the assumption that no family members were employed.[23]

2.2.3 VHFB Surveys in the west

Cost of foods that make up the VHFB was collected from 68 stores across five LGAs in the west. Data was collected by Nutrition and Dietetics students of Monash University, Deakin University and Charles Sturt University with assistance of staff from local Community Health Centres. The number of stores included in each LGA is summarised in Table B1 below.

Table B1: Number of stores included in VHFB dataset from various LGAs in the west

LGA	Number of stores surveyed
Brimbank	25
Hobsons Bay	10
Melton	9
Moonee Valley	9
Wyndham	15

See section 3.2 for the results of the VHFB surveys.

2.2.4 Healthy Fruit and Vegetable Basket Survey in Maribyrnong

The City of Maribyrnong did not conduct the VHFB survey but instead used an alternative survey to assess the cost of healthy foods in the municipality: the Healthy Fruit and Vegetable Access Basket Survey (HFVB survey). The survey was conducted in 2009 in all outlets stocking fresh fruit and vegetables and it included ethno specific fruit and vegetable options to reflect the cultural diversity in the community.

2.3 Community consultations

Community consultations undertaken in the west investigating elements of food security highlighted other issues within the community impacting on food security, particularly physical barriers, mobility and personal perceptions. A number of consultations took place between 2009 and 2010 in the western LGAs. The consultations were undertaken independently so consistent questions and formats were not used. However a number of common themes were identified. See appendix B for information on the content and focus of each consultation.

See section 3.3 for results of the community consultations.

CHAPTER 3

Results

CHAPTER 3 Results

3.1 Food outlet mapping

3.1.1 Regional picture

There were 1286 food outlets mapped across the six LGAs in the west. The majority were take away outlets (n=928, 72%). Fresh food outlets (fruit and vegetable outlets and chain supermarkets) accounted for 23% of outlets mapped. There were a smaller proportion (n=58, 5%) of cultural supermarkets.

The ratio of fresh food outlets to take away outlets in the west was 1:3. The lowest ratio by LGA was in Wyndham, where one fresh food outlet was mapped for every seven take away outlets. Table C1 presents the results of the mapping of food outlets for all six LGAs in the west.

Table C1: Number of food outlets in the west by type and LGA

	Brimbank	Hobsons Bay	Maribyrnong	Melton	Moonee Valley	Wyndham	Western catchment
Total area (km^2)	123	66	31.5	525	44	542	1331.5
Total population[24]	189 386	88 053	72 896	107 150	112 800	156 573	723 858
Fruit and Vegetable outlets	99	21	41	8	20	8	197
Take Away	268	159	132	64	111	194	928
Chain Supermarkets	24	19	no data collected	17	25	18	103
Cultural Supermarkets	30	5	no data collected	8	12	3	58
Alcohol Outlets	42	13	42	no data collected	no data collected	no data collected	data not available
Ratio between fresh food outlets and take away	1:2	1:4	1:3	1:2	1:2	1:7	1:3
Proportion of residents living further than 400-500m from fresh food outlet[‡]	75%	90%	66%	83%	97%	data not available	data not available

Maps E7 – E10 show the four types of food outlets (fruit and vegetable outlets, take-away outlets, supermarkets and cultural supermarkets) located in the west in relation to public transport routes. Maps E11 – E14 highlight the relationship between the number of food outlets and SEIFA quartiles for suburbs (see Appendix E for details).

See Appendix D for mapping results for each LGA.

[‡] This figure was calculated for each LGA based on total land area compared with a 400 – 500 metre radius from each fresh food outlet. This figure does not take into account population distribution across the LGA so needs to be interpreted with caution. The proportion are indicative of risks to food security rather than being a true measure of the number of residents who live in a food desert.

3.1.2 Summary

The most evident finding from the mapping was the disproportion in the number of fruit and vegetable outlets compared with take away outlets. In Wyndham, this was as low as 1:7 (fruit and vegetable outlets : take away outlets). Matching the takeaway outlets with SEIFA data also showed that the take away outlets were more heavily concentrated in some areas of greater disadvantage.

The most significant issue that the data uncovered was that the majority of people in the west live further than 400 – 500 metres from a fruit and vegetable outlet.

The results indicate increased risk of food insecurity for residents within the HealthWest catchment.

3.2 Victorian Healthy Food Basket Surveys

The Victorian Healthy Food Basket Surveys were conducted in 2010 in 68 stores across Brimbank, Hobsons Bay, Melton, Moonee Valley and Wyndham. The Victorian Healthy Food Basket Survey was conducted to assess the affordability of a healthy diet for the most common types of families. For the purpose of comparison between LGAs a typical family has been defined as two unemployed parents with two fully dependent children.

It is recommended food should not exceed 30% of total income.[25] The survey found that the median healthy basket cost for a typical family was the least expensive in Brimbank ($376) and most expensive in Hobsons Bay ($428) (see Table C2). The cost of healthy food basket is most expensive, relative to income for the typical family in Melton and Moonee Valley with 40% of their income being spent on healthy food. The results indicate that 4 LGAs in the catchment area exceed the 30% recommended to be spent on the healthy food thus, residents at increased risk of food insecurity.

Table C2: Victorian Healthy Food Basket (VHFB) surveys results

LGA	Median cost of a VHFB for typical family per fortnight	Median percentage of income required to purchase a VHFB for typical family
Brimbank	$376	29%
Hobsons Bay	$428	35%
Melton	$413	40%
Moonee Valley	$414	40%
Wyndham	$422	33%

Maribyrnong City Council undertook a Healthy Fruit and Vegetable Basket Survey looking at different criteria than above. For more information on the MCC basket survey contact Community Planning and Advocacy team on 9688 0127.

3.3 Community Consultations

The purpose of the community consultations was to develop an understanding of the barriers and enablers to accessing healthy food among community members in the western region. The results have also been collated to support other evidence collected through the food outlets mapping and Victorian Healthy Food Basket Survey. It is important to note that one consultation per LGA was included in the dataset for this report. Hence, the barriers and enablers identified may not provide a comprehensive list of barriers experienced in the community and available solutions. They do however represent points of commonality across the west.

Common barriers and enablers to food security were identified in the consultations:

3.3.1 Community identified food security barriers

Qualitative analysis of the community consultations across the west indicated common barriers to accessing healthy food in the local area.

Table C3 indicates the common and related barriers identified through the consultations by LGA.

Table C3: Barriers to food security identified through the consultations by LGA

Barriers		Brimbank	Hobsons Bay	Maribyrnong	Melton	Wyndham
Food Access	Lack of transport to fresh food outlets			▓	▓	▓
	High cost of healthy and good quality food	▓	▓	▓	▓	▓
	Competing financial priorities, e.g. paying bills	▓				
	Low income	▓				
Food Availability	Location of food outlets		▓			
	Poor quality of fresh food		▓	▓	▓	
	Lack of culturally appropriate food				▓	
Food utilisation	Lack of knowledge of nutritious food				▓	▓

3.3.2 Community identified food security enablers

Respondents across the west also identified enablers to improve their access to healthy food. The main solutions identified through the consultations were:

- Fresh local produce markets and community gardens
- Improved transport to shops
- Delivery options for elderly and people with a disability
- More fresh and quality food outlets
- Promotion and education of healthy food, budgets, cooking skill

See appendix C for the results of the most current community consultations conducted in each LGA.

CHAPTER 4

Discussions

CHAPTER 4 Discussions

4.1 Food insecure populations

Food security is defined as "the state in which all persons obtain nutritionally adequate, affordable, culturally acceptable, safe food regularly through local non-emergency sources".[26]

As mentioned, the four main determinants of food security are food access, food availability, food utilisation and stability of these.[27]

There are a number of groups that are "at risk" or vulnerable to food insecurity, and these include:

- low income families
- people who are unemployed or have limited formal education
- people with a disability, including mental illnesses
- people from non-English speaking backgrounds
- frail elderly people
- people affected by alcohol and/or substance abuse
- homeless people
- people from Aboriginal and Torres Strait Islander backgrounds.[28]

The Western Metropolitan Region is characterised by rapid growth, high cultural diversity and higher than state average levels of disadvantage. Many individuals as well as communities in the west have poor access to nutritious foods or are food insecure. This is due to issues associated with one or a combination of food availability, access and utilisation factors.

4.2 Barriers to food security in the west

A comprehensive range of barriers to food security have been identified in Victoria, see Table D2.

The results of the food mapping, VHFB surveys and the community consultations point to a number of common food availability and food access barriers to food security in the west (see Table D1). These are discussed in more detail below. It is important to note that many of the barriers included in Table D2 may be experienced by communities and/or individuals in the west, however they were not identified as common across the catchment in the data sources used to inform this report so have not been discussed.

Table D1: Barriers to food security in the west identified through the data presented in this current study

Food Access	Food Availability
High cost of healthy food and living	Risk of residents living in fruit and vegetable deserts
Low income	Disproportion between the number of fresh fruit and vegetable outlets in comparison to take away outlets
Lack of public or private transport	Lack of culturally appropriate food

Table D2: Barriers to food security identified by the VicHealth Food for All Program[29]

Food Access	Food Availability	Food Utilisation
Lack of public and private transport to and from shops	Lack of local shops that supply affordable, appropriate healthy food	Lack of cooking equipment, food storage and cooking facilities
Lack of income	Lack of an appropriate environment to grow fresh food	Lack of understanding about and interest in healthy food
High cost of living, including housing and petrol costs		Lack of knowledge and skills re shopping and cooking
High cost of healthy food		Lack of language, cultural familiarity, literacy and communication skills that hinder shopping, meal planning, preparation and provision of healthy food
Lack of capacity to focus on healthy eating issues due to a range of higher order priorities		Lack of knowledge or interest in growing food
Lack of confidence, trust, familiarity and social connectedness acting as a barriers to engagement in food security initiatives		

4.2.1 High cost of healthy food and living

There is reduced access to healthy foods in the west due to economic factors, such as the affordability of healthy foods. Considering the high social and economic disadvantage experienced in the west, this is a real and concerning food security issue. High food prices pose a barrier to purchasing healthy food for disadvantaged and vulnerable groups.

It is recommended that healthy food expenditure should not exceed 30% of total household income.[30] A key finding from the Victorian Healthy Food Basket surveys undertaken in the west was that low income families need to spend on average 35% of their household budget (or $410 per week) to maintain a healthy diet. The cost of a healthy food basket is most expensive relative to income for the typical family in Melton and Moonee Valley, with 40% of their income needing to be spent. The results indicate that cost of healthy foods based on proportion of income would exceed the recommendation of 30% or less in the majority of the LGAs in the west.

The high cost of healthy foods in the west is also highlighted in the results of the 2008 Victorian Population Health Survey, where respondents stated a high cost of food as a reason why they don't always have the quality or variety of foods they would like. In Brimbank the percentage of people who indicated this was the highest (42.3%) of the six LGAs compared to the Victorian State average of 28.3%.

Furthermore community consultations identified the high cost of healthy food as a major barrier to food security. 79% of respondents in Hobsons Bay listed affordability as one of the factors affecting food security. 18% of respondents in Brimbank stated the high cost of healthy food at the local shops as one of the barriers experienced. Affordability was also a predominant issue for residents of Melton Shire.

Participants also stated that the high cost of living, e.g. rent, petrol and utility bills, is a major barrier to food security. In Brimbank, the cost of bills as well as mortgage/rent payments (16% and 10% respectively) were reported to be the reason why those who reported running out of food were unable to buy more.

The high price of fresh produce affects the quality of food that is affordable for the community. This can lead to substituting cheaper energy-dense, nutrient-poor foods for fruit and vegetables, leading to poor health outcomes such as obesity and diabetes.[31] The high cost of healthy foods in the west, and subsequent high proportion of income that needs to be spent on a healthy diet presents a food security issue based on economic barriers.

4.2.2 Low income

Another barrier to food access identified in the west is low income. Areas of the west are characterised by high socio-economic disadvantage, which is evident in the fact that four of the LGAs in the west are ranked in the top ten SEIFA index for disadvantage in Victoria. The economic disadvantage experienced by residents in the west impacts on their risk of food insecurity.

According to the 2008 Victorian Population Health Survey, a higher percentage of adults living in Maribyrnong (9.1%), Melton (6.1%) and Wyndham (5.8%) had experienced food insecurity due to lack of sufficient funds to buy food, compared to 5.8% in the Northern & Western Metro Region and the Victorian State average of 5.6%.

In addition results of the community consultations in Brimbank show low income was cited as the main reason respondents were unable to buy more food. In Maribyrnong, the second most common reason for limited fruit and vegetable consumption was insufficient funds to buy this type of food.

Low income is an important factor to consider as healthy eating is determined by income levels; cheaper foods often contain high levels of fat and sugar.[32] There is evidence indicating that people on low incomes consider energy-dense fast foods as better value for money. This can result in poor nutrition and overweight in vulnerable groups, characterized by periods of inadequate food consumption followed by consumption of high energy foods.[33]

4.2.3 Lack of public or private transport

The issues of physical access to fruit and vegetable outlets in the west were highlighted in the food outlet mapping. The community consultations in Brimbank, Melton and Hobsons Bay identified a lack and the high cost of public and private transport as one of the major barriers to food security. Also in Maribyrnong the second most common reason for limited fruit and vegetable consumption was physical disability.

This is consistent with results of the 2008 Victorian Population Health Survey where respondents in the west stated inadequate and unreliable public transport as a reason why they don't always have the quality or variety of foods they would like. In Maribyrnong the percentage of people indicating transport as a main barrier to accessing food was the highest (12.9%) compared to the Victorian State average of 8%.

As such, access to healthy food in the west is largely car dependent. According to the 2006 census, at least 9% of the residents in three LGAs in the west (9.8% in Hobsons Bay, 11.8% in Moonee Valley, 16.9% in Maribyrnong) do not own a car, compared to the Melbourne Statistical Division average of 9.4%. Residents without a car or who cannot drive potentially have a long journey by bus or foot and the added challenge of carrying heavy groceries. There are several groups that might be particularly at risk of food insecurity due to limited transport: the elderly, disabled, or women with young children.

There is evidence that links physical access to food and food purchasing and consumption.[34] Research from VicHealth suggests that transport links impact on food security and a person's ability to access nutritious food. This is an issue for the west, particularly in the rapidly growing areas in

the outer west LGAs of Wyndham and Melton where public transport links and infrastructure lag behind the population growth.

4.2.4 The risk that residents live in fruit and vegetable deserts

A significant food security issue in the west is the risk that residents live in what can be termed as "fruit and vegetable deserts" or "food deserts". Food deserts are *areas in the city where cheap, nutritious food is virtually unobtainable within a 500m (6 minutes walk) radius.*[35] Food deserts are determined by number of factors such as car ownership, topography and public transport. Although distance alone is not an accurate indicator of the accessibility to food outlets, it is one way to measure risk of food insecurity.[36]

The food outlets mapping data indicated that there were low numbers of fresh food outlets. Based on total land area and the location of food outlets, the majority of people in the west live further than 400 to 500 metres from a fruit and vegetable outlet putting them at risk of food insecurity. Whilst there are limitations in the measure of the proportion of residents in the west living in food deserts (population distribution was not considered in the calculation), lack of access to fresh fruit and vegetables was a common theme in the community consultations. For example, 85% of respondents in Hobsons Bay identified access to healthy food as the main barrier to food security.

The lack of physical access to healthy foods in the west is concerning, particularly considering chain supermarkets were included in the food outlet mapping. Chain supermarkets can be considered as proxy measures of access to healthy foods, due to their market share of groceries and fresh food in Australia.[37] Several studies have found an association between access to supermarkets and healthier food intake. Findings have included an increase in fruit and vegetable intake with each additional supermarket, and poor diets observed in pregnant women who live further than 4 miles from a supermarket.[38]

There is a need for changes to the physical environment in the west to address the issue of food deserts and improve the access to healthy foods. Built environments that are designed with access to healthy foods will make healthy choices easier for residents. This will support the efforts of health promotion programs that are targeted at nutrition knowledge and skills for individuals and groups.[39] In Victoria, local governments are encouraged to use a framework focused on promoting environments that support health in their municipal public health planning.[40] In addition, the Victorian Local Government Association (VLGA) has produced resources to support local government authorities in urban planning that considers food security.[41]

4.2.5 Disproportion between the number of fresh fruit and vegetable outlets in comparison to take away outlets

One of the food security issues evident in the west is the disproportion between the number of fruit and vegetable outlets in comparison to take away outlets. The food outlets mapping indicated there are 300 fresh fruit and vegetable outlets in the west, including chain supermarkets that sell fresh fruit and vegetables compared with 928 take away outlets. The lowest number of fresh fruit and vegetable outlets was recorded in Melton and Wyndham, where there were 8 outlets. In Wyndham, the ratio of fruit and vegetable outlets to takeaway outlets was the lowest at 1:7.

Overlaying the mapping of take away outlets with SEIFA data showed that the take away outlets were more heavily concentrated in some of the most disadvantaged areas in the west, see map C12 in Appendix E.

Fast food outlets can be considered proxies for access to unhealthy food. Research conducted by the University of Melbourne indicated that decreased accessibility to fast food restaurants, particularly variety, may result in a reduction in consumption of take away food and lead to better health outcomes.[42]

Considering fast foods are energy-dense and nutrient poor, their consumption is strongly related to overweight and obesity.[43] According to the World Health Organisation, there is a strong social gradient linking poor access to healthy foods and good access to unhealthy food in disadvantaged areas with diet-related disease such as obesity, diabetes and coronary heart disease.[44] This

relationship between access to healthy foods and disease could partly attribute to the high prevalence of diabetes in the west. Three of the five LGAs (Brimbank, Hobsons Bay and Moonee Valley) in the west are considered diabetes "hotspots", with prevalence of diabetes greater than 4% of the population. In Brimbank, where the highest number of take away outlets was recorded, prevalence of diabetes is 6.1% of the population, and the number of people with diabetes is the highest in any LGA in Victoria.[45] An underlying principle of health promotion practice is making the healthy choice the easy choice. This is because one of the determinants of health - behaviour change - is the opportunity created by environments that make healthier choices easier or reduce opportunities for unhealthy choices.[46] The ratio of take away outlets compared with fruit and vegetable outlets indicates that unhealthy food choices are the "easy" choice for many residents in the west, and there is a need to increase the availability of healthy choices through increased food and vegetable outlets.

4.2.6 *Lack of culturally appropriate food*

Food security, by definition, also incorporates the cultural appropriateness of foods. This is an important factor in the west because of its high culturally diversity as described in Chapter 2; for example, 43.4% people living in Brimbank were born outside Australia.[47] The access to culturally appropriate foods in the west presents an additional barrier to food security.

This was evident in the food mapping, where there were very low numbers of cultural supermarkets (n=58, 5%). The results of the community consultations in some LGAs support this finding. A third (34%) of Brimbank respondents reported that they had adequate access to food, but not the kind of food they would like. Residents of Melton Shire identified lack of culturally appropriate food as one of the factors affecting food security.

This is consistent with the results of 2008 Victorian Population Health Survey where respondents in the west stated lack of culturally appropriate food as a reason why they don't always have the quality or variety of foods. This result was highest in Brimbank, where 11% of respondents reported this reason, compared to the Victorian State average of 6.8%.

There is a need to increase the access to culturally appropriate healthy food options in the west to support food security within its diverse communities.

4.3 Limitations

4.3.1 *Mapping of Food Outlets*

The process used to collect the data for the mapping of food outlets has a number of limitations:

- The mapping of the food outlets may not have captured all existing outlets in the west.
- Lack of consistency between LGAs collection/definitions. Each local council collected its data using different methods, particularly in the classification of food outlets, which presented challenges for comparing and contrasting data across the region. Five local councils (Brimbank, Hobsons Bay, Melton, Moonee Valley and Wyndham) used a consistent mapping guide to categorise the data (see appendix A). HealthWest analysed the data and, where possible, addressed the inconsistencies. This data collection process can be improved in the future, should the project be undertaken again.
- The mapping considered physical location of the outlets but did not include mapping of public and community transport, car ownership, community and private gardens, and other factors that may impact on food security. Hence the picture of food security that is presented in the food mapping is not comprehensive. This report has attempted to incorporate other dimensions by analysing data in the VHFB surveys and community consultations.
- The proportion of residents living in food deserts was calculated using total land area

4.3.2 Inconsistency in community consultations

Community consultations were undertaken in each LGA, however this was not done in a coordinated approach across the west. Each survey had different purposes and defined target groups meaning there was not a set of consistent questions that were asked in each consultation. As a result, common themes could be identified, such as barriers to food security, but whole of catchment data is not available. This also creates a limitation in measuring changes as a result of collaborative action.

Other limitations of the consultations include:

- Small sample sizes within each survey.
- High representation of certain community groups e.g. elderly.
- The use of existing groups in surveys - people are already accessing services.
- Low representation of most disadvantaged groups (young mums, single parents, teenagers living away from home etc.).
- Some surveys only look at some suburbs amongst the LGA.
- No relevant data was available for Moonee Valley.

Due to the limitations listed above, it is not possible to generalise the findings from the consultations to the broader population of the west, and instead the results provide an indication of a subset of community-identified food security issues.

4.3.3 Inclusion of all dimensions of food security

There were three components to the data presented in this report, which informed the recommendations: the mapping of food outlets, the Victorian Healthy Food Basket surveys and recent community consultations. As discussed, food security is influenced by a number of availability, accessibility and utilisation factors including: the location and accessibility of food outlets; the availability of food within outlets; price, quality, variety and promotion of food; financial resources; physical mobility and the distance and availability of transport to food stores; food preferences; food preparation, cooking and storage facilities; and issues of food safety.[48] The three data sources were unable to measure all of the aforementioned dimensions.

4.3.4 Barriers and recommendations identified

The regional picture of food security that has been presented in this report provides an overview of the shared food security issues/barriers across the catchment, as identified through the data sources. In this way, the results can be used to inform collaborative work that is relevant across the catchment.

Similarly, the recommendations presented in Chapter 5 are based on responding to the regional issues that emerged from the data sources, and the focus is on collaborative work across the catchment. The recommendations are not a comprehensive list of possible food security actions.

4.4 Learnings

As a strategic alliance of organisations, HealthWest Partnership facilitates joint work and the coordination of a range of different activities in the western region, relevant to its health and wellbeing priorities. However, HealthWest is not a research institution nor does it routinely have staff employed with expert research skills. As a result, there were a number of challenges and learnings from the process of undertaking the activities presented in the report, and in collating the findings into a regional report.

4.4.1 Food Access Profiles

The Food Access Profiles project which mapped the location of food outlets across the west was an attempt to bring together data that was being collected at a sub-regional (LGA) level to present a regional picture. The project was not designed as a research project. As a result, there are a number of limitations with the data that is presented and discussed in this report, and these have been discussed in Section 4.3.

The recommendation from undertaking this process is that future mapping activities should be undertaken in partnership with a research institution and be based on a consistent project design that would reduce or address the limitation experienced.

4.4.2 Collating community consultations

If a consistent and thorough approach was undertaken in community consultations across the west, we could more confidently draw a regional picture of food security issues identified by the communities in the west. The report draws together data from a number of consultations which had independent purpose and audience, and used different questions to assess elements of food security. Collating this data into common themes made assumptions regarding: the ability to generalise consultation findings to the broader western populations; similar interpretation of questions by respondents; and appropriate interpretation of responses by HealthWest in its analysis.

The recommendation from undertaking this process is that an agreed set of food security questions should be developed to be included in relevant community consultations in the west, so an accurate regional picture can be described, comparisons can be made between LGAs, and changes over time can be tracked.

CHAPTER 5

Summary and recommendations
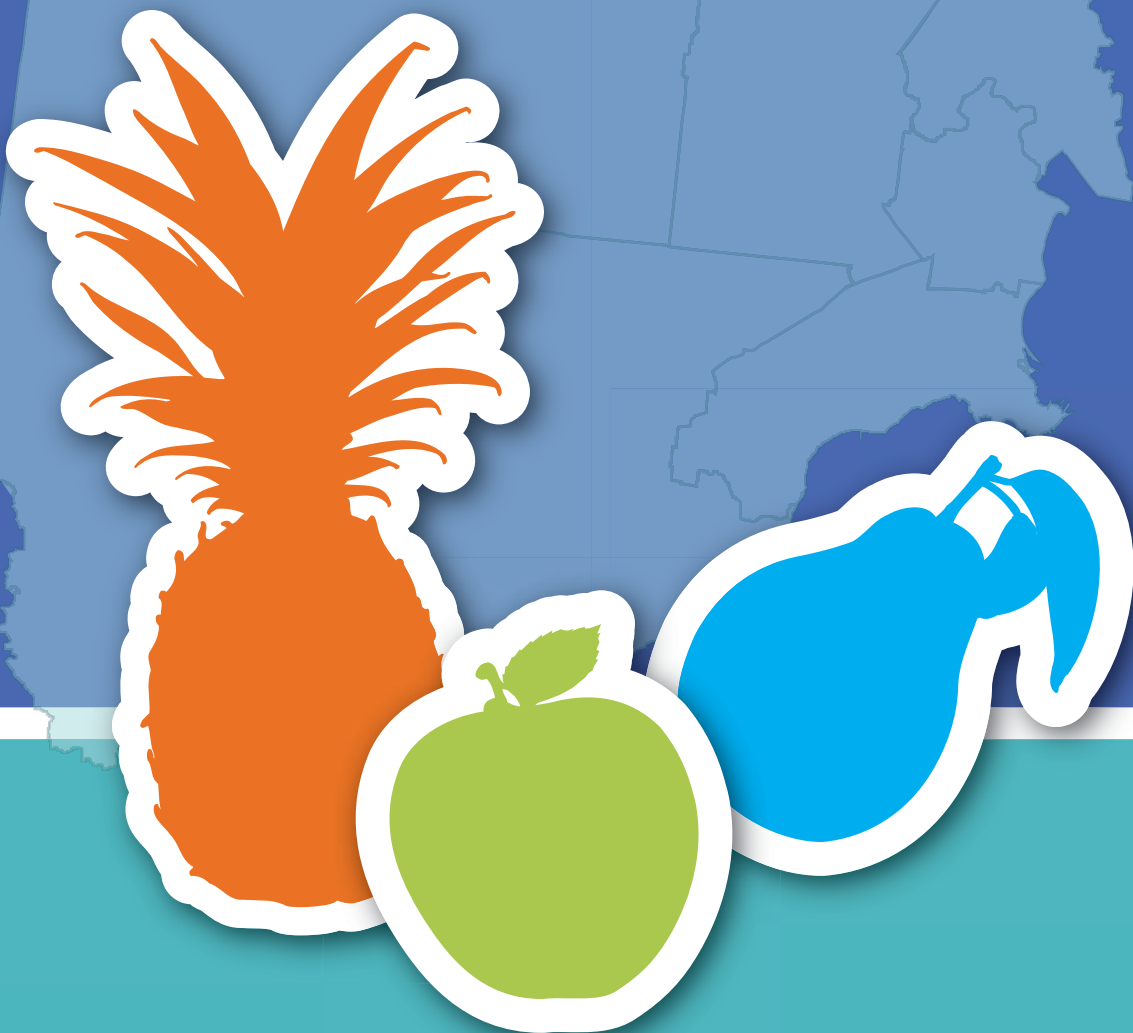
CHAPTER 5 Summary and Recommendations

5.1 Summary

Food security is a long standing issue in the west that has far-reaching consequences beyond dietary intake. The aim of this report is to present the common food security issues in the west based on the findings from three data sources: the Food Access Profiles, the Victorian Healthy Food Basket (VHFB) surveys, and community consultations. The findings of this report can be used to inform the planning of food security initiatives, and will support regional coordination and identify opportunities for collaboration and advocacy in regards to improving food security in the west.

The results of the food mapping, VHFB surveys and the community consultations point to a number of common food access and food availability issues in the west.

The main issues that affect food access in the west are:

- high cost of healthy food
- low income
- lack of public or private transport

The main issues that affect food availability in the west are:

- fruit and vegetable deserts
- disproportion between the number of fresh fruit and vegetable outlets in comparison to take away outlets
- lack of culturally appropriate food

5.2 Recommendations

Based on the key food security issues identified in the west that have been presented in this report, the following recommendations are proposed to improve access and availability of fresh food in the west:

Recommendations to address food access issues

1. Support community initiatives promoting access to affordable healthy food (e.g. farmers markets, food swap).
2. Establish partnerships with local stakeholders including community and health services, council, community groups and local business interest groups, to ensure equitable distribution of resources to vulnerable community groups.
3. Advocate to local council and relevant decision makers to improve the access to nutritious foods by improving transport links to food outlets (e.g. new or altered bus routes, cycle paths, community buses).

Recommendations to address food availability issues

4. Advocate to local council and relevant decision makers to improve the access to nutritious foods by regulating the number and type of food outlets licensed in the west.
5. Support development of urban food production in the fruit and vegetables deserts (e.g. public space food production, community gardens, and private gardens).
6. Develop a means of evaluating the access to culturally appropriate foods (e.g. develop a cultural healthy food basket).

Recommendations to address social determinants of food security

7. Integrate determinants of food security (i.e. transport, employment and housing) across organisational policies and programs.
8. Develop evidence based strategies addressing the determinants of food security.

In addition VicHealth makes ten recommendations specific to local governments to act on food security. Many of these are consistent with recommendations made above and will help to shape

future food security work in the west. The additional VicHealth recommendations that were not identified as common across the catchment in the data sources used to inform this report are:

1. Allocate responsibility – identify who carries the food security agenda
2. Setting a good example – model food access in council-run activities, facilities and programs
3. Regulatory and fiscal power – use council's regulatory and fiscal powers to drive change
4. Land use planning – influence land use, business mix and the built environment
5. Healthy eating for residents – supporting residents to adopt healthy eating practices
6. Getting food and residents together[49]

5.3 Recommendations to the Food Security Network

In addition recommendations to the Food Security Network were made to guide future work:

1. Encourage consistent and planned approaches to future mapping activities and advocate for the Department of Health-University of Melbourne AURIN Project to include a food security dataset.
2. Agree on consistent food security questions to be included in the future consultations to allow comparison between LGAs and time periods.
3. Increase understanding of decision making process for food outlets approval and explore the opportunities of influencing and advocating for increased access to fresh food outlets.
4. Investigate the feasibility of development a catchment wide tool to measure access to culturally appropriate food.
5. Increase understanding of decision making process for public transport routes and how they link to the food outlets and explore opportunities for influencing and advocating for increased access to fresh food outlets.
6. Map local initiatives addressing determinants of food security to identify the gaps.
7. Provide forum for engagement of non health sector in addressing food security in the west.

5.4 Examples of current local initiatives addressing food security

5.4.1 Community Foodlink Program

Hobsons Bay City Council's research and community consultations highlighted access to affordable fruit and vegetables was a challenge for some residents, particularly in Laverton.

The Council approached Gateway Social Support Services to partner in the six week pilot project that delivered fresh produce to community groups. Gateway Social Support Options have embraced the initial food collection and delivery concept and have integrated the pilot project into its core service delivery employing a part time coordinator of its Community Foodlink program.

Gateway has also been able to establish a monthly social luncheon utilizing the excess produce ensuring additional residents are benefitting from the food collection. Produce delivered is surplus and is collected several times a week from Foodbank Victoria.

Produce delivered to an elderly person's public housing estate bought residents to a central meeting place weekly and with the support of the Councils Community care department has now become an outreach PAG.

The Council and Gateway have formalized the partnership in a service Agreement and signed off the second year agreement concluding in June 2012.

5.4.2 HealthWest advocacy in Derrimut

In 2012, HealthWest Partnership, Western Region Health Centre and ISIS Primary Care made submissions to Brimbank City Council in response to a planning application for a new McDonald's outlet in Derrimut. Using the food mapping as an evidence base, the submission objected to the approval of the application based on the high numbers of take away outlets already existing in Brimbank, and the ratio of take away outlets to food and vegetable outlets. The need for alignment across council policies with regards to public health priorities (e.g. healthy environments) and urban planning decisions was raised in the submission.

Although the planning application was approved, this provides an example of using the evidence base to advocate to local council with regards to type and location of food outlets in the west.

Next steps could be to establish partnerships with the urban planning departments of local councils to better understand how to influence decisions made regarding the number and type of food outlets.

5.4.3 Food Production Implementation Plan in Maribyrnong

Maribyrnong City Council has initiated a Food Production Implementation Plan aimed at increasing local food production within the municipality. The plan includes expanding two community gardens in Year 1, and the intent to develop one new community garden per financial year for a further two years. Community gardens have the potential to deliver a range of beneficial outcomes to the community. Objectives of growth of community gardens in Maribyrnong are to:

- increase the amount of food produced in Maribyrnong
- provide opportunities for people to improve their household food security
- create spaces that foster collaboration and interaction among local residents from a diverse range of backgrounds
- create opportunities for gardening as leisure for people without access to land
- promote relaxation through nature based activity
- build community capacity and networks to adapt to future food challenges

The Food Production Implementation Plan also focuses on ways to include edible plantings in public spaces, encouraging home food gardening and harnessing other development opportunities to include and promote urban agriculture.

More info: www.maribyrnong.vic.gov.au

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APPENDIX A - Mapping guide to categorise the data for the food outlets mapping in the west

Category	Example of Stores (Sub-category)
Fresh	*Shops for which the majority of food sold is fresh* For example: • Butchers • Green grocers • Fish mongers • Delicatessens • Some bakeries - however if they sell a lot of hot pastries, cakes etc they may need to be classified as a mixed business.
Takeaway	*Shops for which the majority of food sold is takeaway and requires no further preparation eg. the food is ready to eat.* • **Chain:** McDonalds, KFC, Hungry Jacks, Red Roster, Pizza Hut • **Cultura**l: Noodle bars, sushi, Indian, Chinese, Thai, Kebab Shop • **Generic**: Charcoal chicken, fish and chips, pizza, hamburgers, dim sims, chips, potato cakes • **Other**: Sandwich and salad bars, subway, cafe offering takeaway service
Supermarket	*Super-stores selling food from all good groups in fresh and other forms. A complete and balanced diet can be purchased solely from these shops.* **For example:** Coles, Safeway/Woolworths, IGA, FoodWorks
Cultural Supermarket	*Shops selling foods in any form (fresh, frozen, packaged, etc) that are traditional to a particular culture and are marketed towards that particular culture.* **For example:** Indian store selling grains, rice, spices, native vegetables and other foods that are part of the traditional Indian diet.
Mixed Business	*Shops that don't fit into the category of primarily take away or fresh food shops. That is, they sell items other than food and/or also sell a variety of fresh and takeaway foods.* **For example:** Milk bars, bakeries (½ fresh bread, ½ cakes/pastries)
Miscellaneous	*Shops that don't fit into the take away, fresh, cultural supermarket, supermarket or mixed business categories.* **For example:** Liquor Stores

APPENDIX B – Content/focus of community consultations in the west

The results of the following community consultations have been used to inform the project:

LGA	Community consultation	Content/focus
Brimbank	Accessing Food in Brimbank – Community Consultations, ISIS Primary Care, 2009	The consultations assessed access to fresh food in Brimbank. Conducted with community health centre clients across campuses in Sunshine, St Albans and Deer Park.
Hobsons Bay	Hobsons Bay City Council Community Consultation, 2009	The purpose of the survey was to seek feedback on the issues from residents and organisations providing assistance to people facing food security issues. The survey consisted of three key questions as follows: ✓ When it comes to accessing food what factors are important to you? ✓ What do you think is needed to improve people's access to food in your area? ✓ What can the Council do to improve access to food in the municipality? Each of these questions was framed in order to provide the Council with guidance in setting the priorities for the Food Security Policy Statement and for identifying where improvements in service delivery could be made.
Maribyrnong	Food Security Survey Maribyrnong City Council, 2011	The survey investigated the issues around the production and consumption of fresh fruit and vegetables within the municipality, such as: community knowledge of serving size for fresh fruit and vegetables; community desire to consume more fresh fruit and vegetables; reasons for not being able to consume more; and community support for and potential involvement in selected Council initiatives to produce more fruit and vegetables in the municipality.
Melton	Djerriwarrh Health Service (DjHS) Food Access Profile- Focus Groups, 2010	Food security focus groups were conducted by DjHS with: ✓ Diabetes Group Program (7 participants) ✓ Melton and Moorabool Young Parent and Parenting Group (4 participants) ✓ Refugee Nutrition Training Program (7 participants)
Wyndham	Examining Issues of Food Security in Wyndham, Wyndham City Council and ISIS Primary Care, 2007	A community survey was conducted as part of a joint project between Wyndham City Council and ISIS Primary Care that investigated the extent of food security in Wyndham.

APPENDIX C - Results of the community consultations by LGA

Appendix C - Brimbank

Accessing Food in Brimbank – Community Consultation, 2009

Key results:

- Over half of the respondents reported that it is lack of time and the higher cost of healthy foods that stops them from eating a healthy diet.
- When asked whether they had run out of food and not been able to afford more in the last 12 months, over a quarter (27%) of respondents answered yes.
- Not enough money (20%), cost of bills (16%), and mortgage/rent payments (10%) were the main reason given for the inability to afford more food. Following this was the cost of transport and the high cost of food at the local shops.
- The majority of respondents reported that they never worry about food (50%). However over 10% of respondents reported that they worry about having enough food to eat everyday, and a total of a quarter of respondents worry about it more than once a month.
- Over half of the respondents reported that they had enough of food and the kind that they wanted in their household in the last 12 months, with 34% reporting that they had enough but not the kind they would like.

Appendix C - Hobsons Bay

Hobsons Bay City Council Community consultation, 2009

Key results:

- The majority of respondents (85%) indicated that access to fruits, vegetables and meats was important to them, followed by affordability of food (79%) and nutritional value of food (56%).
- Farmers market (58%) and food stores with competitive prices (57%) were needed to improve people's access to food in their area.
- Respondents indicated that the Council's priorities for improving food security should be to increase fresh produce markets (60%), continue food delivery services for the elderly and disabled (52%) and to work on improving transport options to food stores (46%).

Appendix C - Maribyrnong

Maribyrnong City Council Food Security Survey, 2011

Key results:

- The most barriers that prevented respondents from eating more fruit and vegetables were the price of fresh fruit and vegetables (23%), poor quality of fruit and vegetables (11%) and distance to shops selling variety of fruit and vegetables (6%).
- Other issues impacting on the intake of the fruit and vegetables were lack of transport, lack of knowledge of preparing fruit and vegetable and lack of time.
- When asked to identify food security activities that Council should further explore, there was strong community support for community gardens (45%), farmers' markets (44%), local market garden (44%), more fruit and vegetable shops (42%) and fruit and nut street trees (41%).

Appendix C - Melton

DjHS Food Access Profile Focus Group, 2010

Key results:

- Participants buy food mainly in chain supermarkets, fruit and vegetable shops and speciality shops such as butchers and bakeries.

- The main way of getting to the shops is by car and public transport.
- The factors identified as affecting food security were: affordability of nutritious foods; quality of nutritious foods, particularly in chain supermarkets; knowledge of nutritious foods; lack of transportation; and lack of culturally appropriate food.
- Ways of improving access to affordable and appropriate healthy foods which were identified were: farmers markets; community kitchens; community gardens; community buses; more parking around shopping centres; cooking classes; and supermarket tours.

Appendix C - Wyndham

Examining Issues of Food Security in Wyndham, Wyndham City Council and ISIS Primary Care, 2007

- The means of transport that respondents used to get to the shops to buy groceries was predominantly their own car (76%), although a notable number did walk (18%) or use the bus service (12%).
- 10% respondents reported eating take away foods two to three times per week, 31% on a weekly basis and 66% consumed take away food less often than once per week. The majority of the responded eat take away food for its convenience (41%) or lack of time (20%) to prepare other foods.
- The most significant barrier to accessing nutritious foods identified by respondents was price (56%).
- Other issues affecting food security were lack of knowledge about the type of foods to buy (14%), shopping with children (7%), availability (6%), taste (5%) and transport (4%).

APPENDIX D - Results of the food outlets mapping by LGA

Appendix D - Brimbank

Of the 463 food outlets mapped in Brimbank, take away outlets account for 58% while only 21% are fruit and vegetable outlets, 6% cultural supermarkets and 5% chain supermarkets (see Figure D1 and Map D1).

**Figure D1: Food outlets in Brimbank**
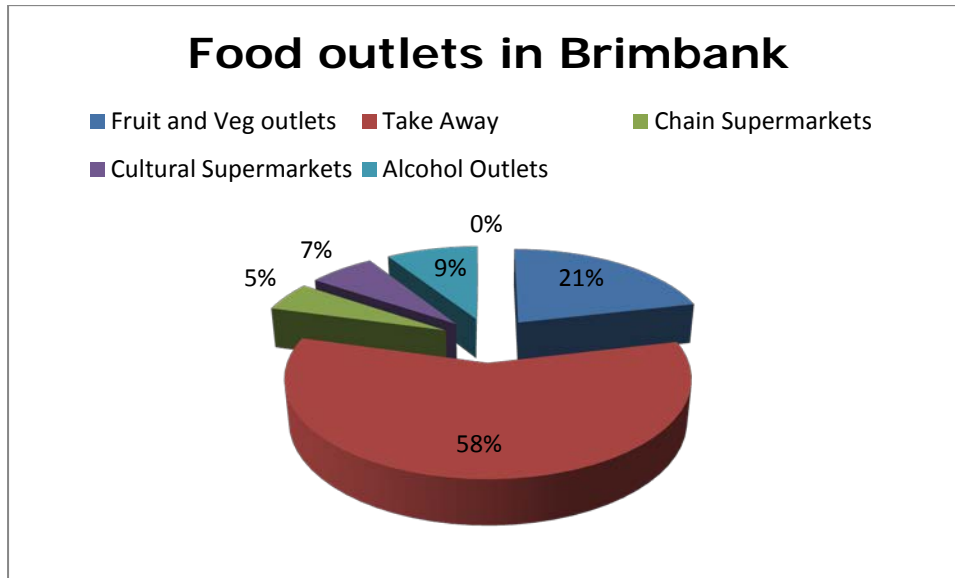
Mapping data for Brimbank indicates that:

- Non-nutritious, high caloric takeaway foods are more readily available than core foods.
- There is a greater concentration of takeaway outlets in the most disadvantaged areas.
- Cultural supermarkets represent only 6% of the total food outlets, despite almost 50% of residents being born overseas. The limited amount of cultural supermarkets may affect culturally and linguistically diverse (CALD) communities' access to culturally appropriate food.

75% of Brimbank residents live in a food desert putting them at a greater risk of food insecurity.

Map D1: Food outlets in Brimbank
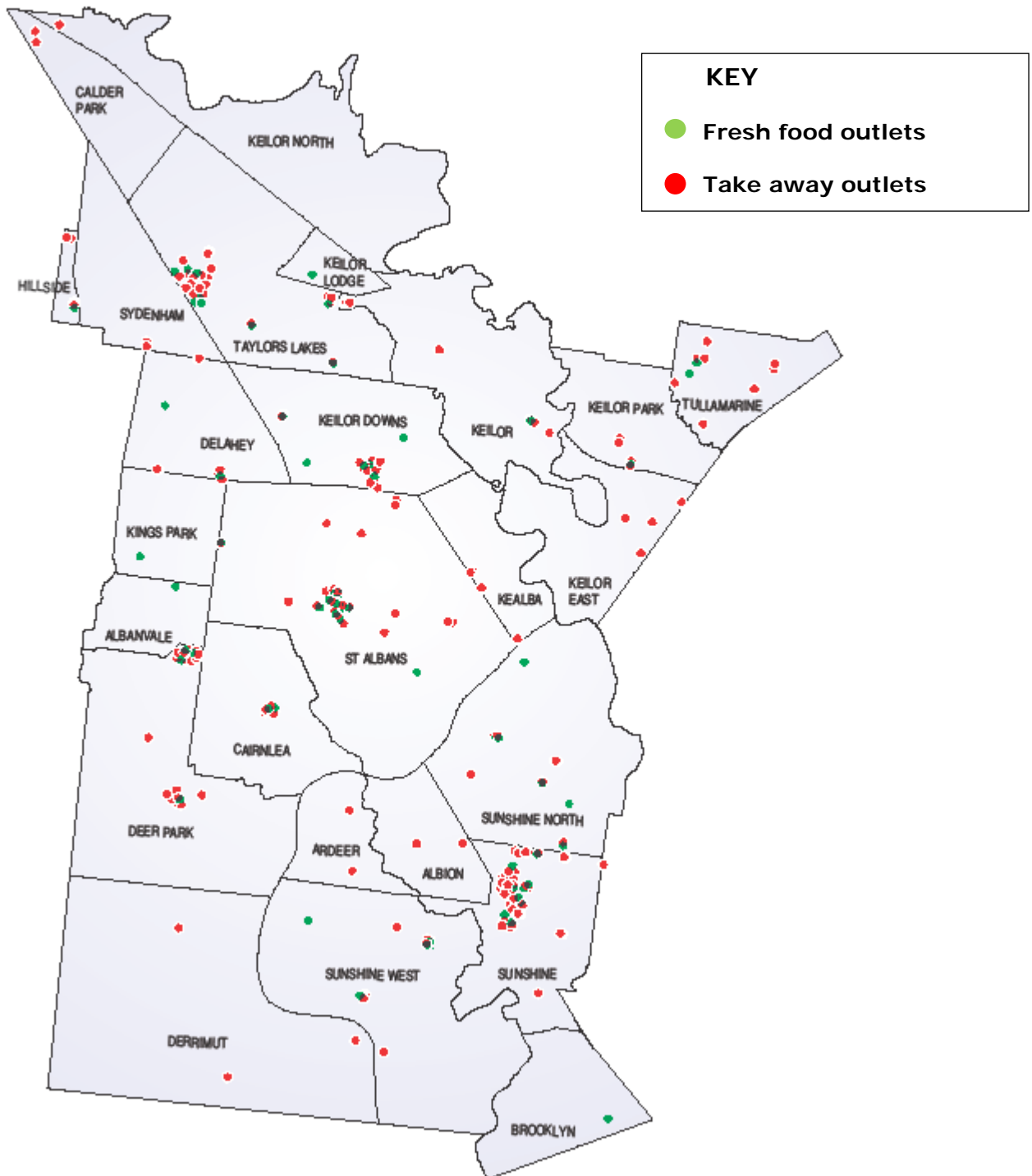
Appendix D - Hobsons Bay

Of the 217 food outlets mapped in Hobsons Bay, take away outlets account for 73% while only 10% are fruit and vegetable outlets, 9% chain supermarkets and 2% cultural supermarkets (see Figure D2 and Map D2).

Figure D2: Food outlets in Hobsons Bay

Food outlets in Hobsons Bay

- ■ Fruit and Veg outlets ■ Take Away ■ Chain Supermarkets
- ■ Cultural Supermarkets ■ Alcohol Outlets
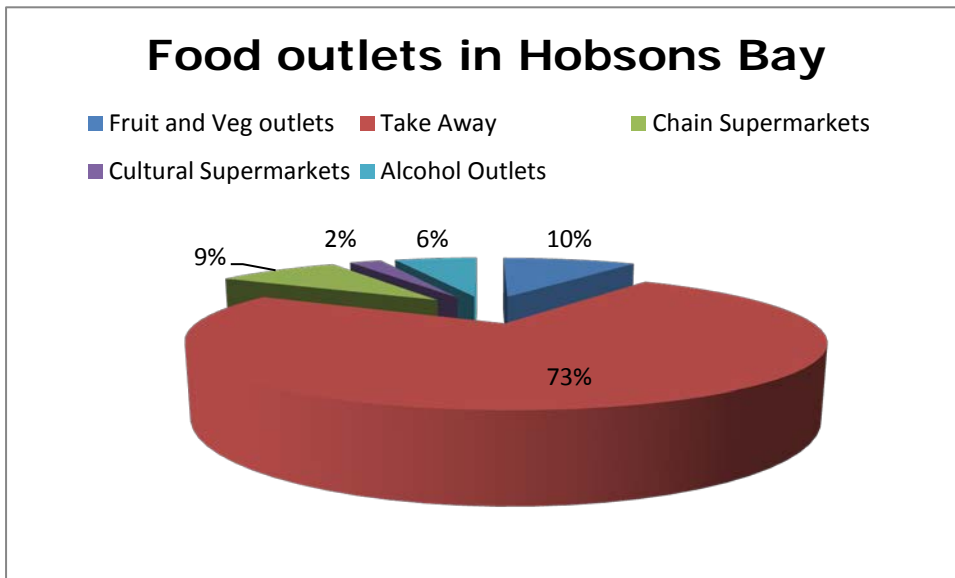
Mapping data for Hobsons Bay indicates that:

- The majority of food outlets are concentrated within the eleven shopping centers of the municipality.
- Access to fresh food (without a car) is difficult for residents in Laverton, north of the rail line, north of the Westgate freeway in Brooklyn, parts of Altona Meadows and Williamstown North.
- There is a disproportionate amount of non-nutritious, high caloric take away available to residents in comparison to core food outlets.
- There are a high proportion of people from culturally and linguistically diverse (CALD) backgrounds living in Hobsons Bay. With only 5 cultural stores identified across the municipality, people from CALD backgrounds are likely to have inadequate access to culturally appropriate foods.

90% of Hobsons Bay's residents live in a food desert putting them at a greater risk of food insecurity.
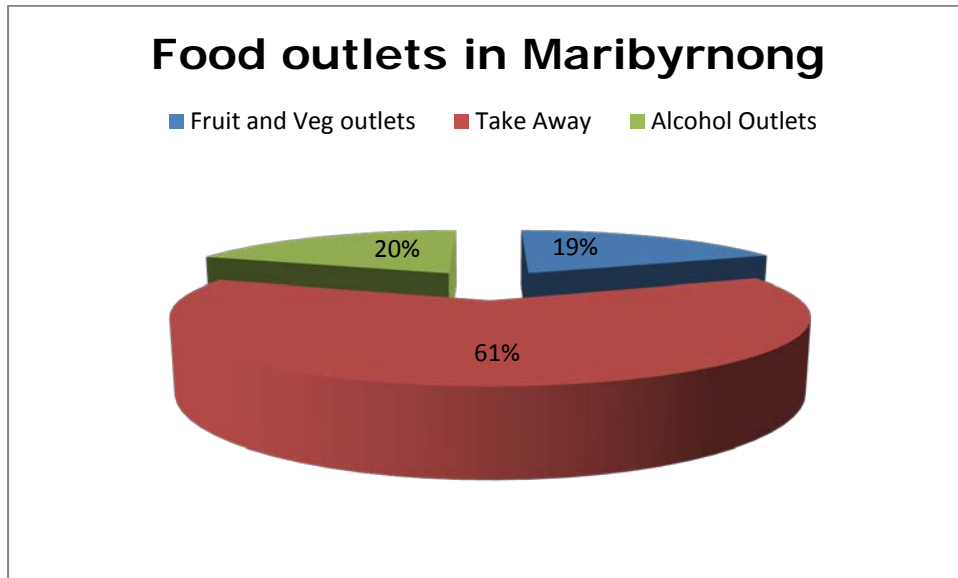
Map D2: Food outlets in Hobsons Bay

KEY

🟢 Fresh food outlets
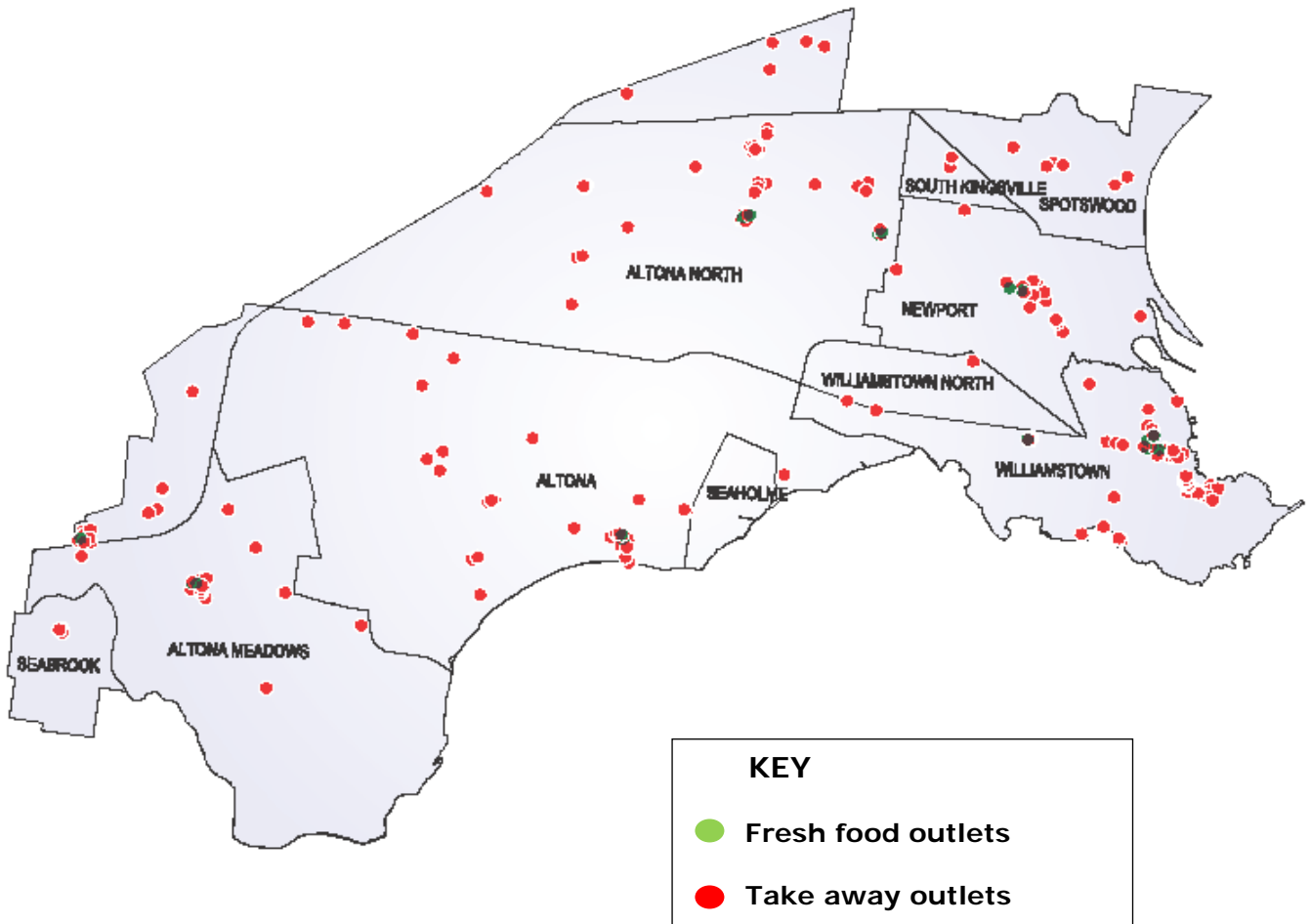
🔴 Take away outlets

Appendix D - Maribyrnong

Of the 215 food outlets mapped in Maribyrnong, take-away outlets account for 61% while only 19% are fruit and vegetable outlets (see Figure D3 and Map D3).

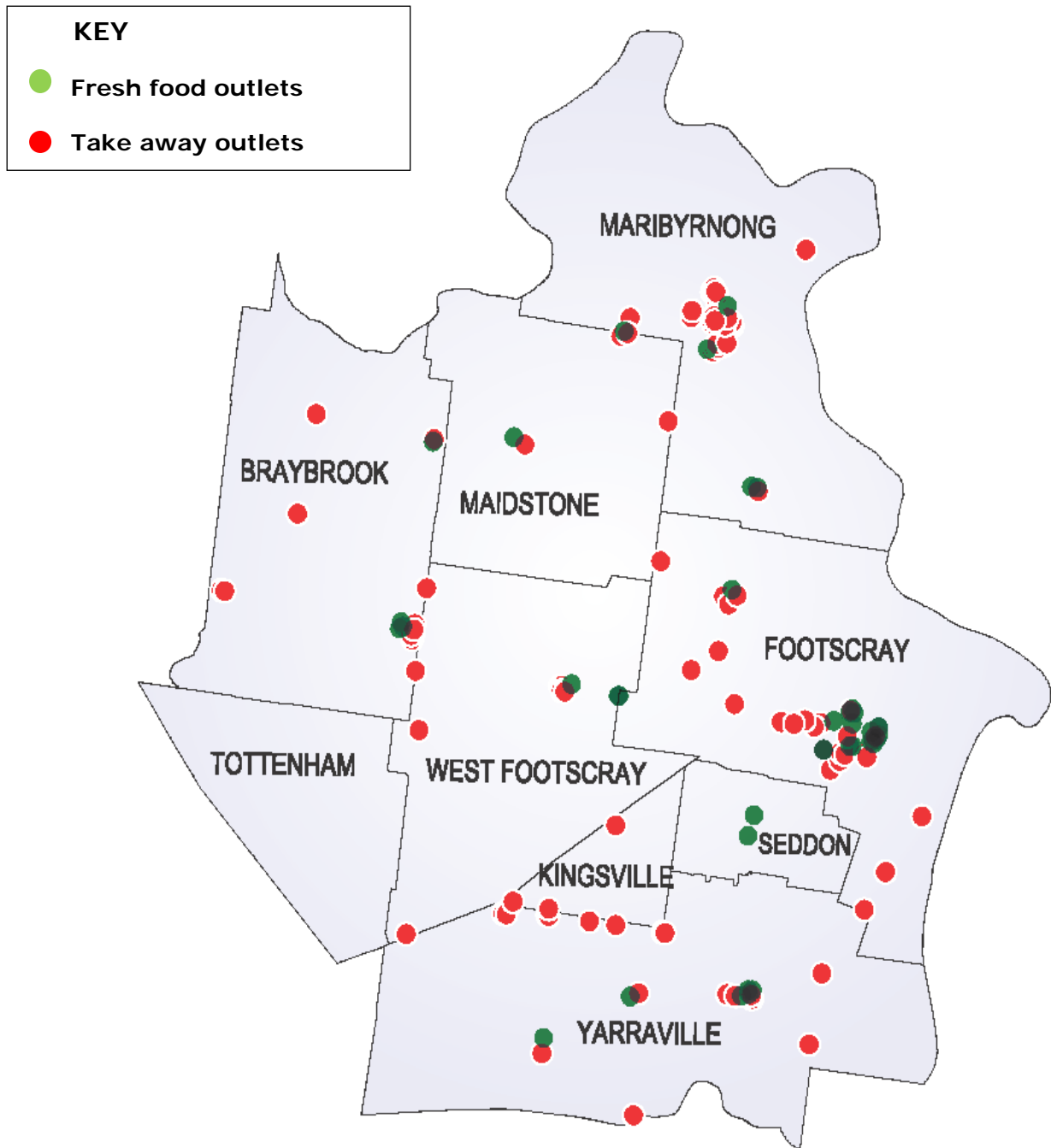**Figure D3: Food outlets in Maribyrnong**

Data from Mapping Maribyrnong indicates:

- There was more than 2.5 times the number of take away outlets compared to fruit and vegetable outlets within the municipality.
- Large areas with poor access to fruit and vegetables outlets were found in West Footscray/Kingsville, Braybrook and Maidstone.

66% of Maribyrnong residents live in a food desert putting them at a greater risk of food insecurity.

Map D3: Food outlets in Maribyrnong

KEY

● Fresh food outlets

● Take away outlets

MARIBYRNONG

BRAYBROOK

MAIDSTONE

FOOTSCRAY

TOTTENHAM

WEST FOOTSCRAY

SEDDON

KINGSVILLE

YARRAVILLE

Appendix D - Melton

Of the 97 food outlets mapping in the Melton Shire, take away outlets account for 66% of outlets, a much larger percentage than chain supermarkets which account for only 18%, fruit and vegetable 8% and cultural supermarkets for 8% (see Figure D4 and Map D4).

Figure D4: Food outlets in Melton Shire
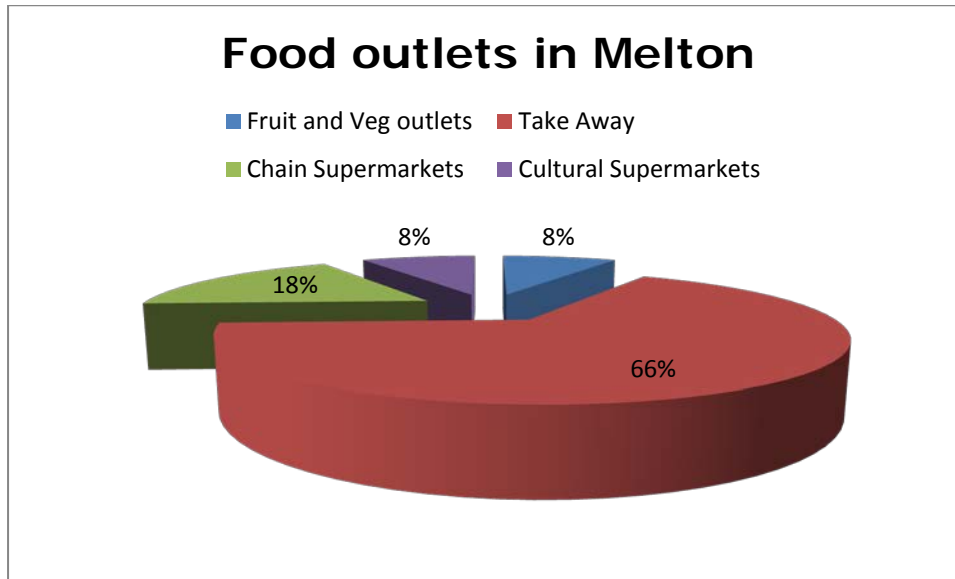
Mapping data for Melton indicates that:

- Residents face an increased risk of food insecurity when considering the disproportionate amount of take away outlets in comparison to fresh fruit and vegetable outlets.
- There is a greater concentration of take-away outlets in the most disadvantaged areas.
- The majority of residents live in fruit & vegetable deserts. This combined with limited transport options further impacts on their vulnerability to food insecurity.

97% of Melton Shire residents live in a food desert putting them at a greater risk of food insecurity.
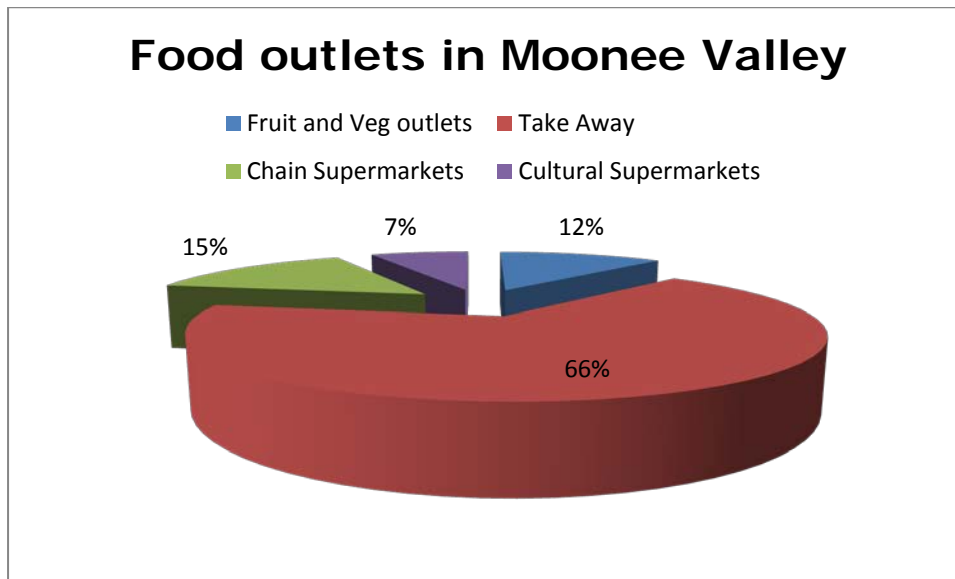
Map D4: Food outlets in Melton

KEY

🟢 Fresh food outlets
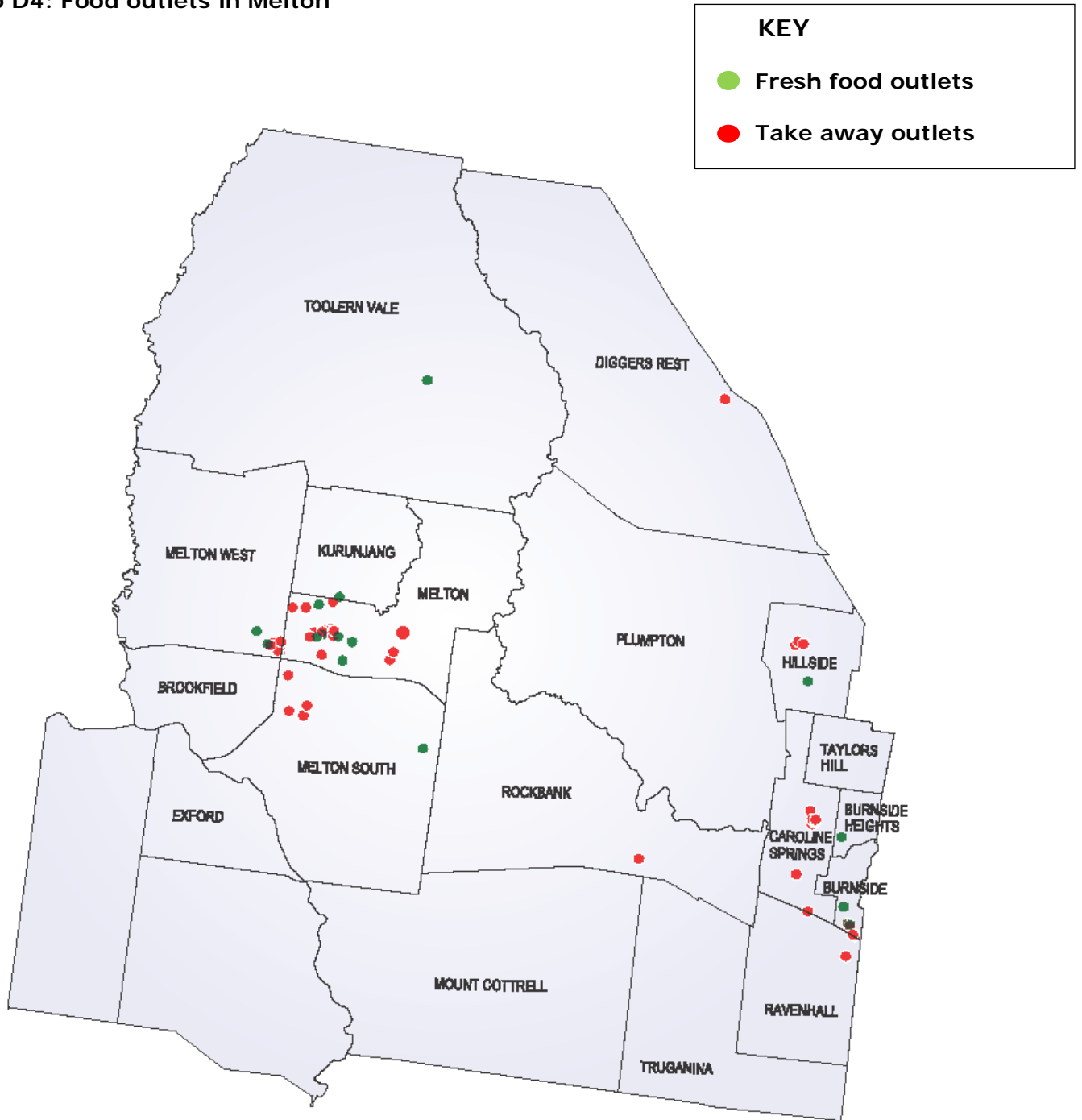
🔴 Take away outlets

Appendix D - Moonee Valley

Of the 168 food outlets mapped in Moonee Valley, take away outlets account for 66% while only 12% are fruit and vegetable outlets, 15% chain supermarkets and 7% cultural supermarkets (see Figure D5 and Map D5).

Figure D5: Food outlets in Moonee Valley



Mapping data for City of Moonee Valley indicates that:

- Non-nutritious, high caloric take away foods are more readily available than core foods.
- Access to public transport may act as a protective factor by increasing accessibility to essential food outlets and therefore decreasing the risk of food insecurity. Areas of concern include Keilor East, Essendon West, Niddrie, Avondale Heights and Ascot Vale where public transport coverage is lacking and 'food deserts' exist. These combined factors increase the vulnerability of people residing in these areas to food insecurity as access to food may be compromised.
- The City of Moonee Valley has a high proportion of people from culturally and linguistically diverse (CALD) backgrounds. With only 12 cultural stores identified across the municipality, people from CALD backgrounds are likely to have inadequate access to culturally appropriate foods.
- A high proportion of elderly people and people living with a disability have been identified in the North West region of the City of Moonee Valley. Reduced mobility can cause difficulty with being physically able to access nutritious food. This is especially problematic given the 'food deserts' that exist in this region.
- A vast 'food desert' was identified in the central region of the City of Moonee Valley. Based on demographic data this region appears to be less socially disadvantaged compared to the South and North West regions. Many people in the area are at a lower risk of food insecurity and therefore these 'food deserts' are less likely to be problematic for residents in the region. However, suburbs of concern in this region are Aberfeldie, Essendon and Strathmore, where there are pockets with higher proportions of elderly people who may be more vulnerable to food insecurity.

83% of Moonee Valley residents live in a food desert putting them at a greater risk of food insecurity.
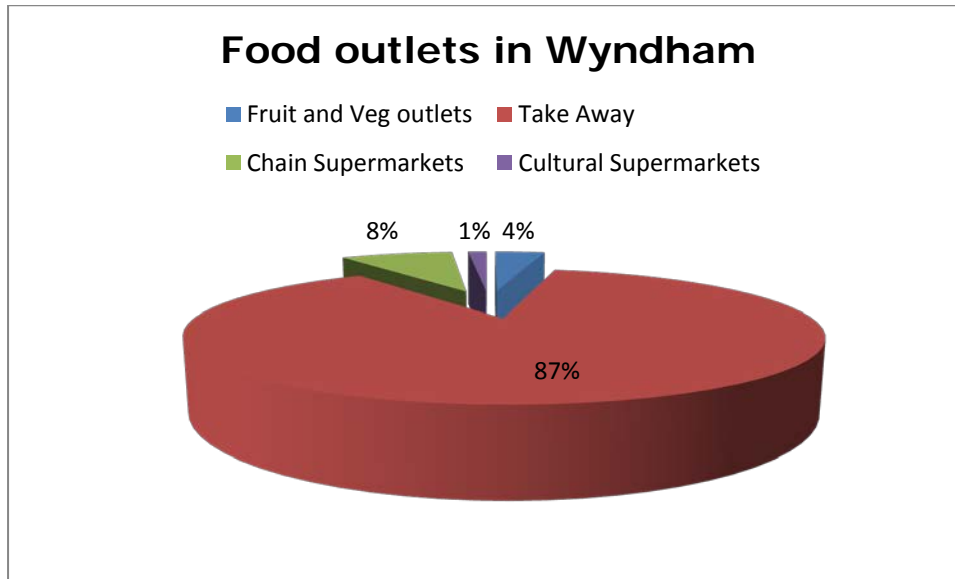
Map D5: Food outlets in Moonee Valley

KEY

🟢 Fresh food outlets
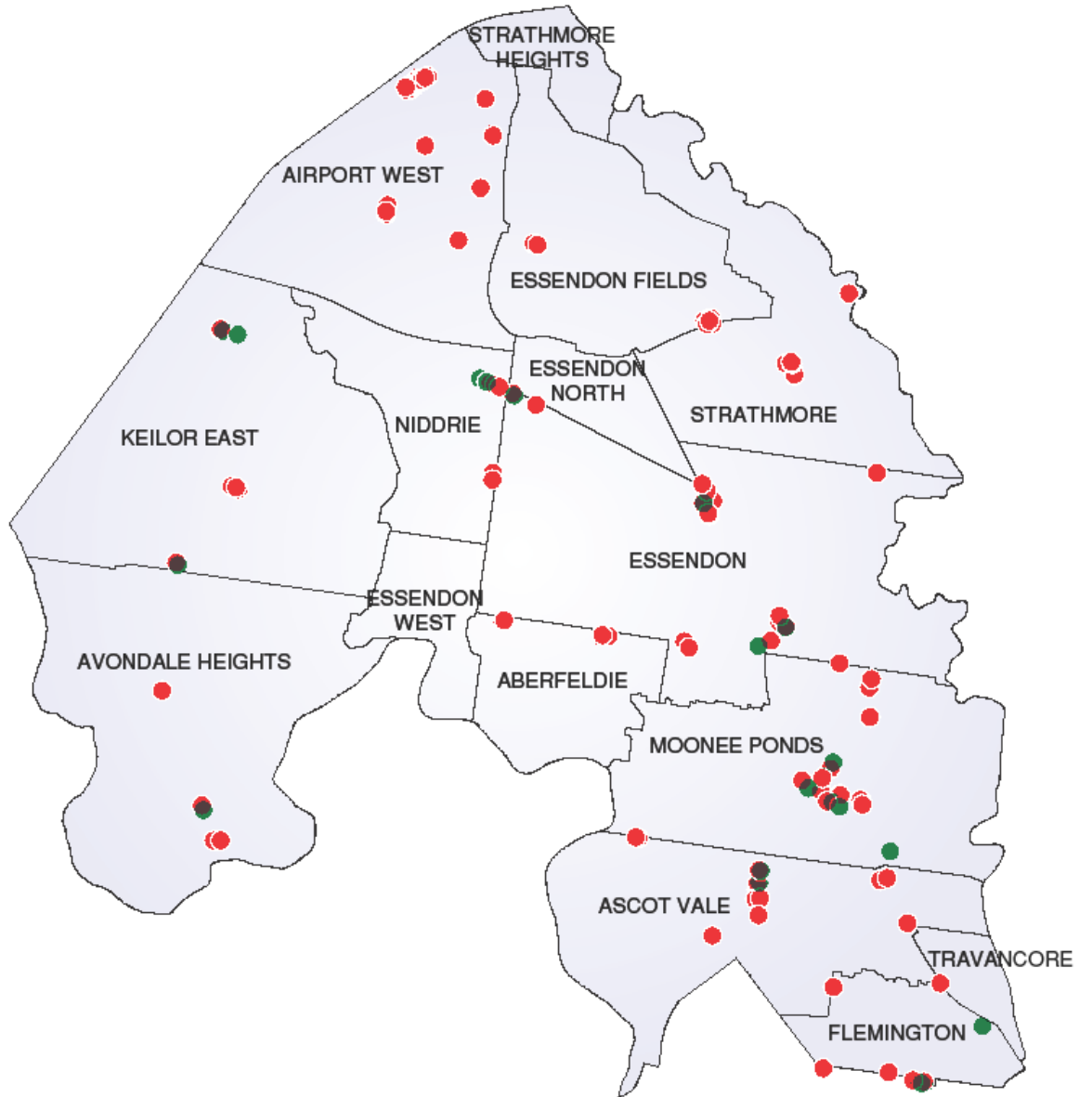
🔴 Take away outlets

Appendix D - Wyndham

Of the 223 food outlets mapped in Wyndham, take away outlets account for 87% while only 4% are fruit and vegetable outlets, 8% chain supermarkets and 1% cultural supermarkets (see Figure D6 and Map D6).

Figure D6: Food outlets in Wyndham

Mapping data for Wyndham indicates that:

- Non-nutritious, high caloric take away foods represent a high proportion of the options available to residents living in Wyndham.
- There is a disproportionate amount of take away outlets in comparison to fruit & vegetable specific outlets and chain supermarkets.
- A high proportion of residents live in food deserts. Combined with limited transport options, these further impacts on resident vulnerability to food insecurity.

97% of Wyndham residents live in a food desert putting them at a greater risk of food insecurity.
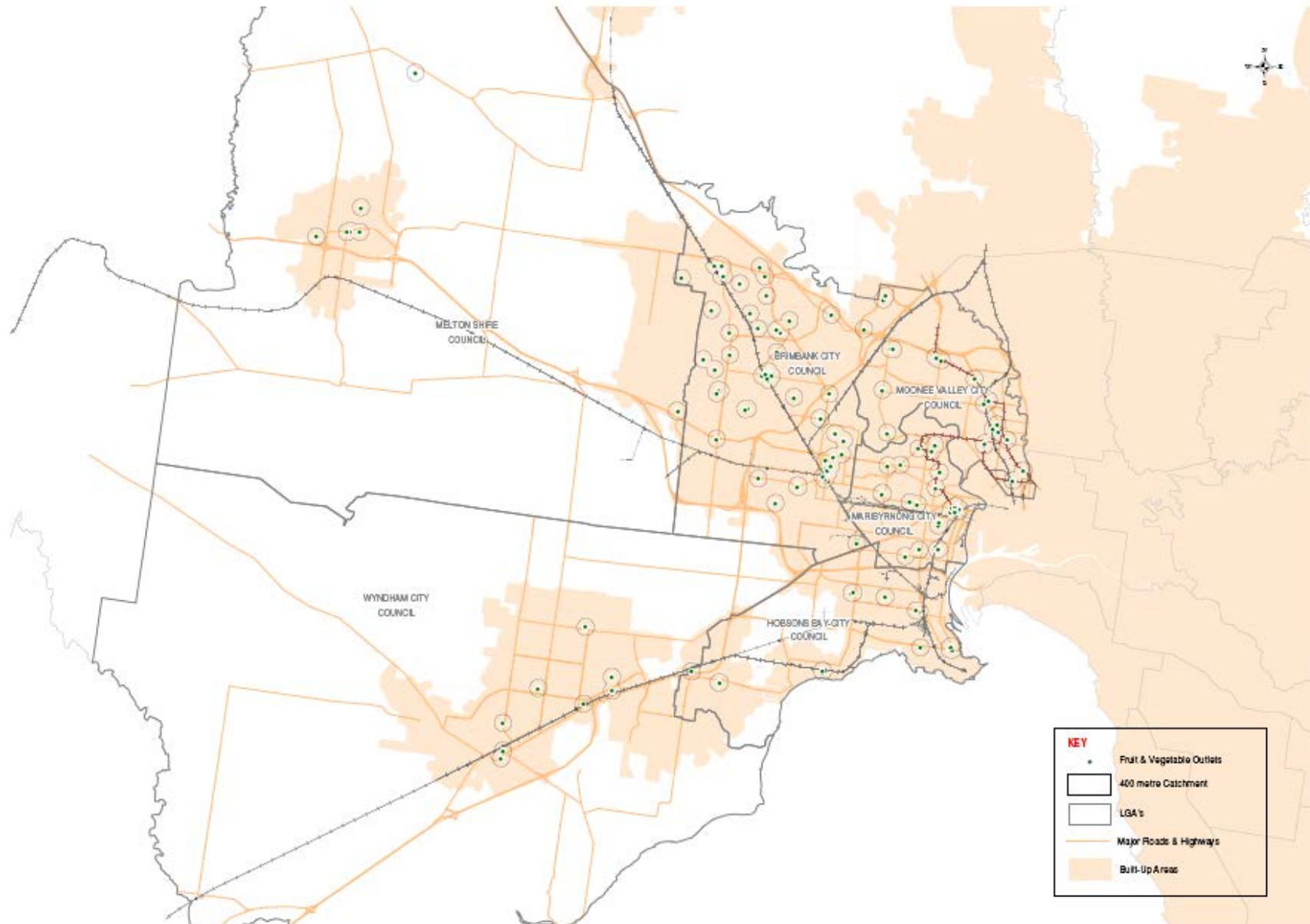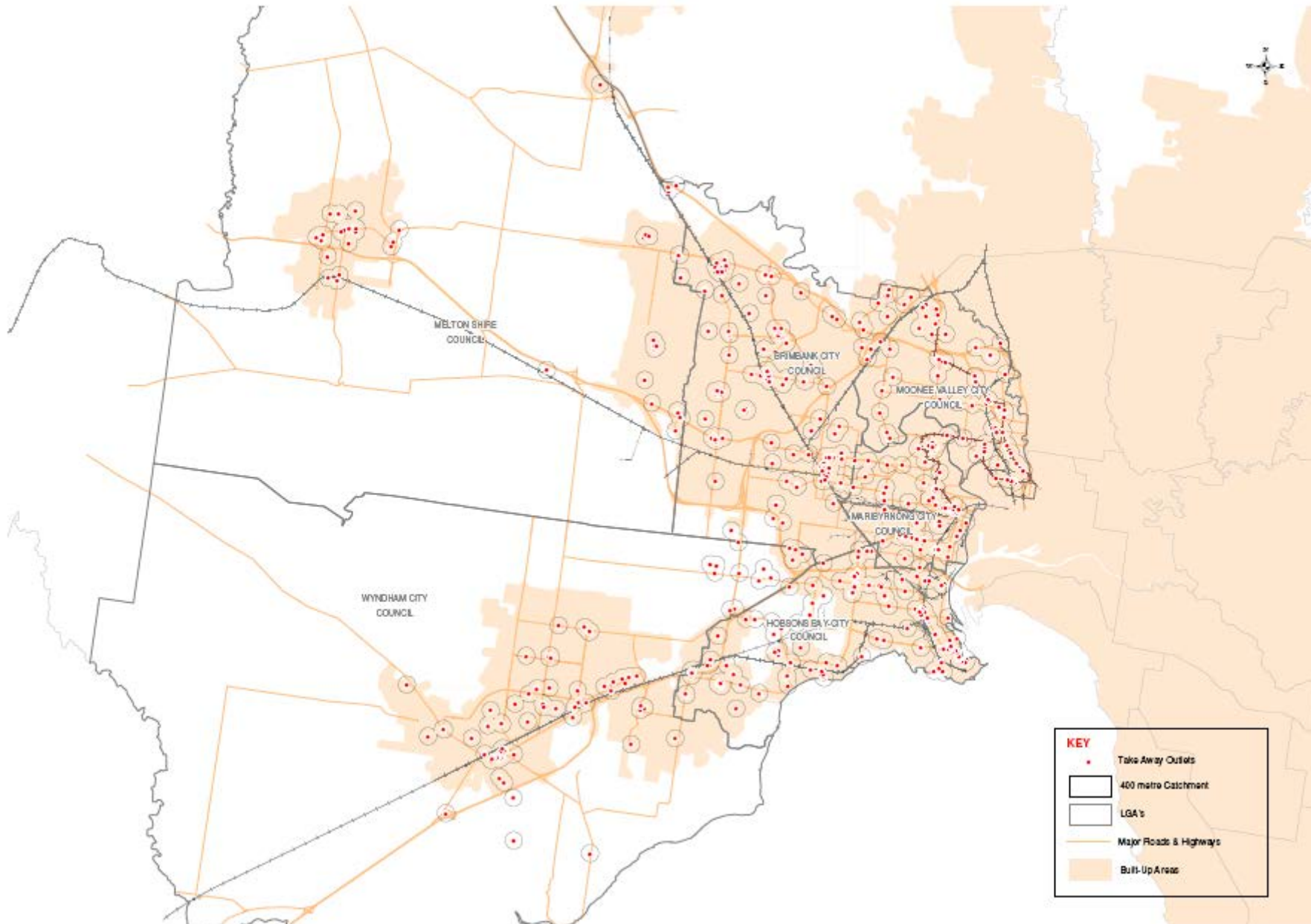
Map D6: Food outlets in Wyndham

KEY

🟢 Fresh food outlets

🔴 Take away outlets

APPENDIX E – Food outlets in the west with public transport and SEIFA quartiles

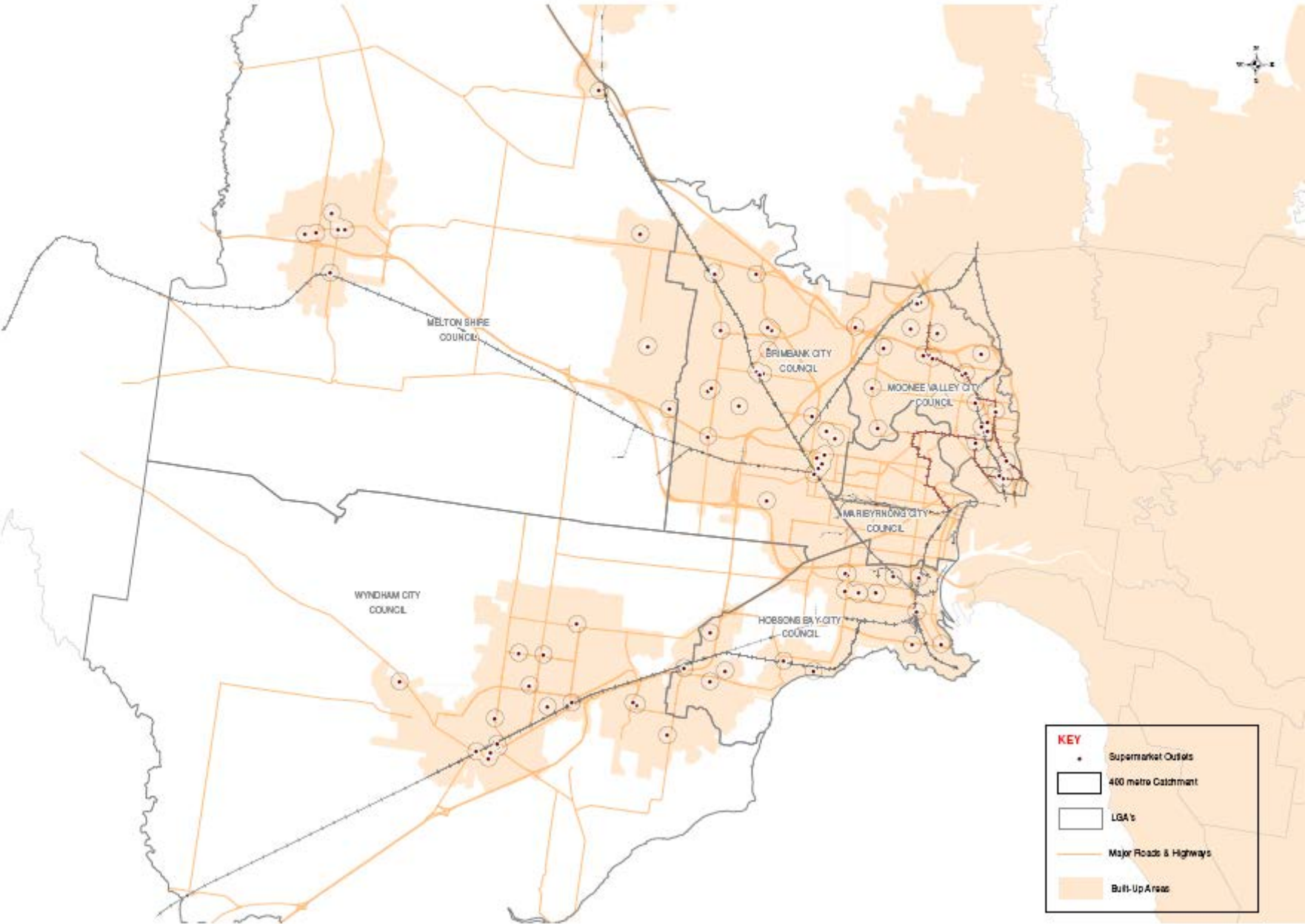**Appendix E - Map E7: Fruit and vegetable outlets in the west with public transport**

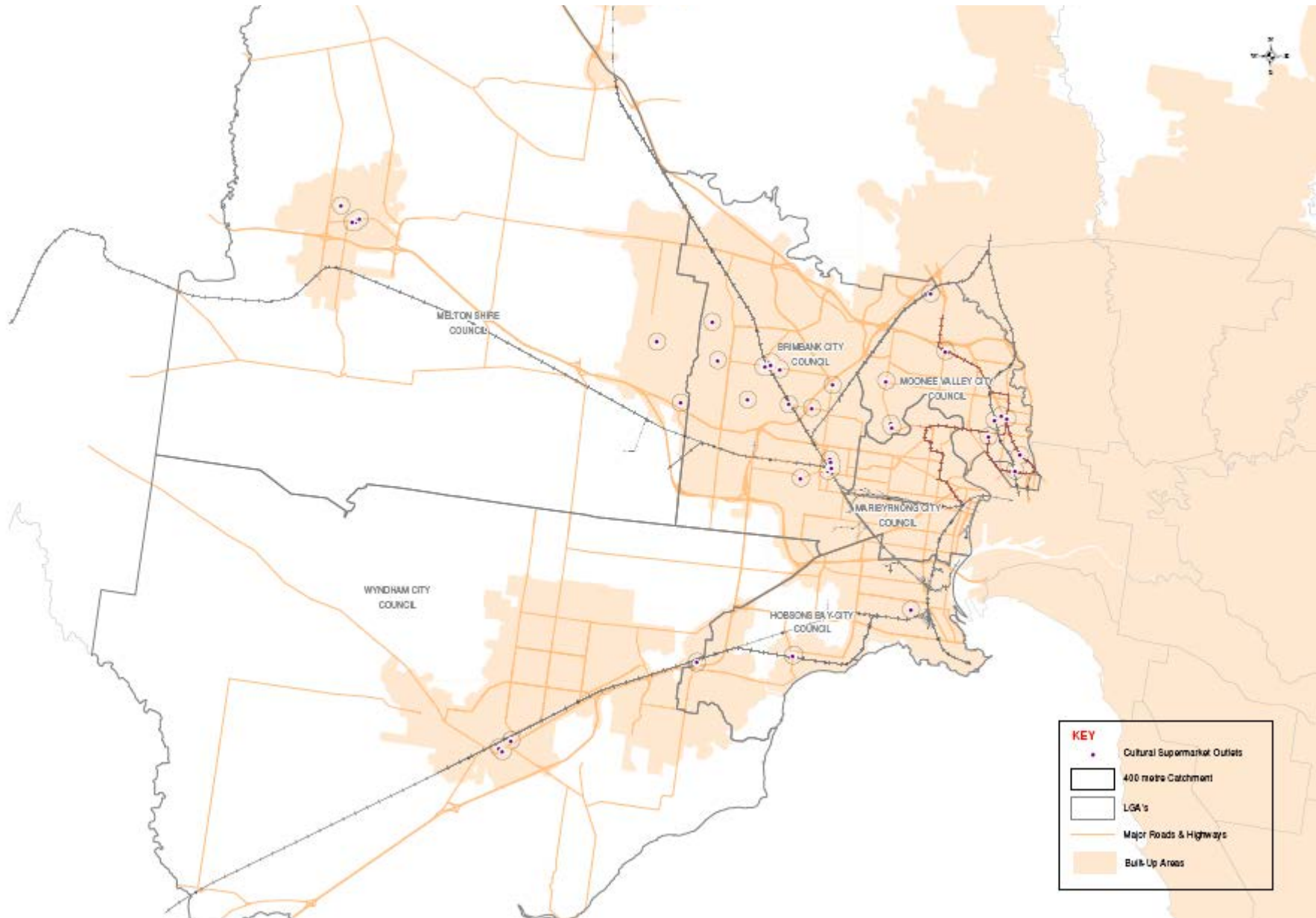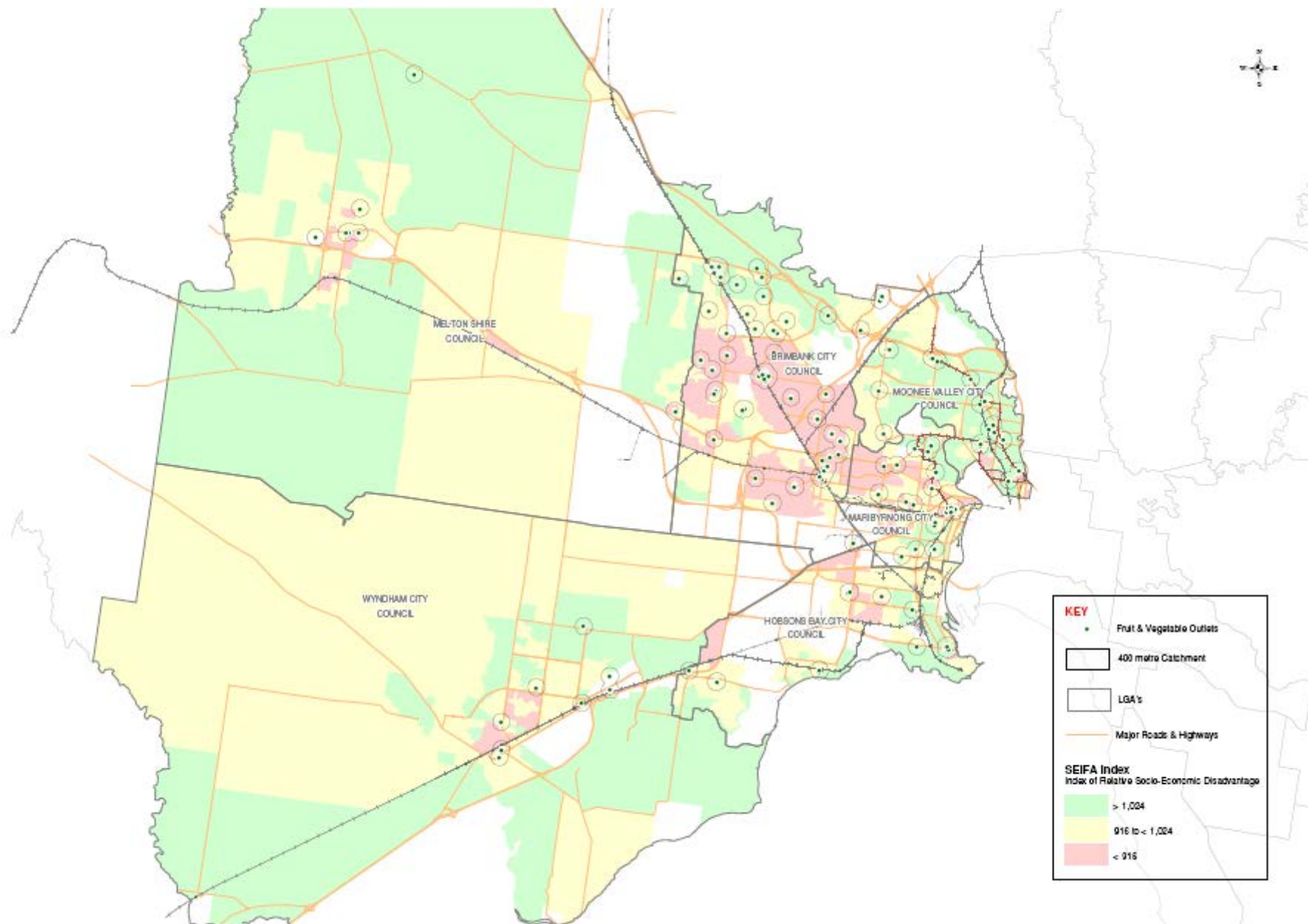**Appendix E - Map E8: Take away outlets in the west with public transport**

46

Appendix E - Map E9: Supermarket outlets in the west with public transport

KEY

- •   Supermarket Outlets
- ▢   400 metre Catchment
- ▢   LGA's
- ──   Major Roads & Highways
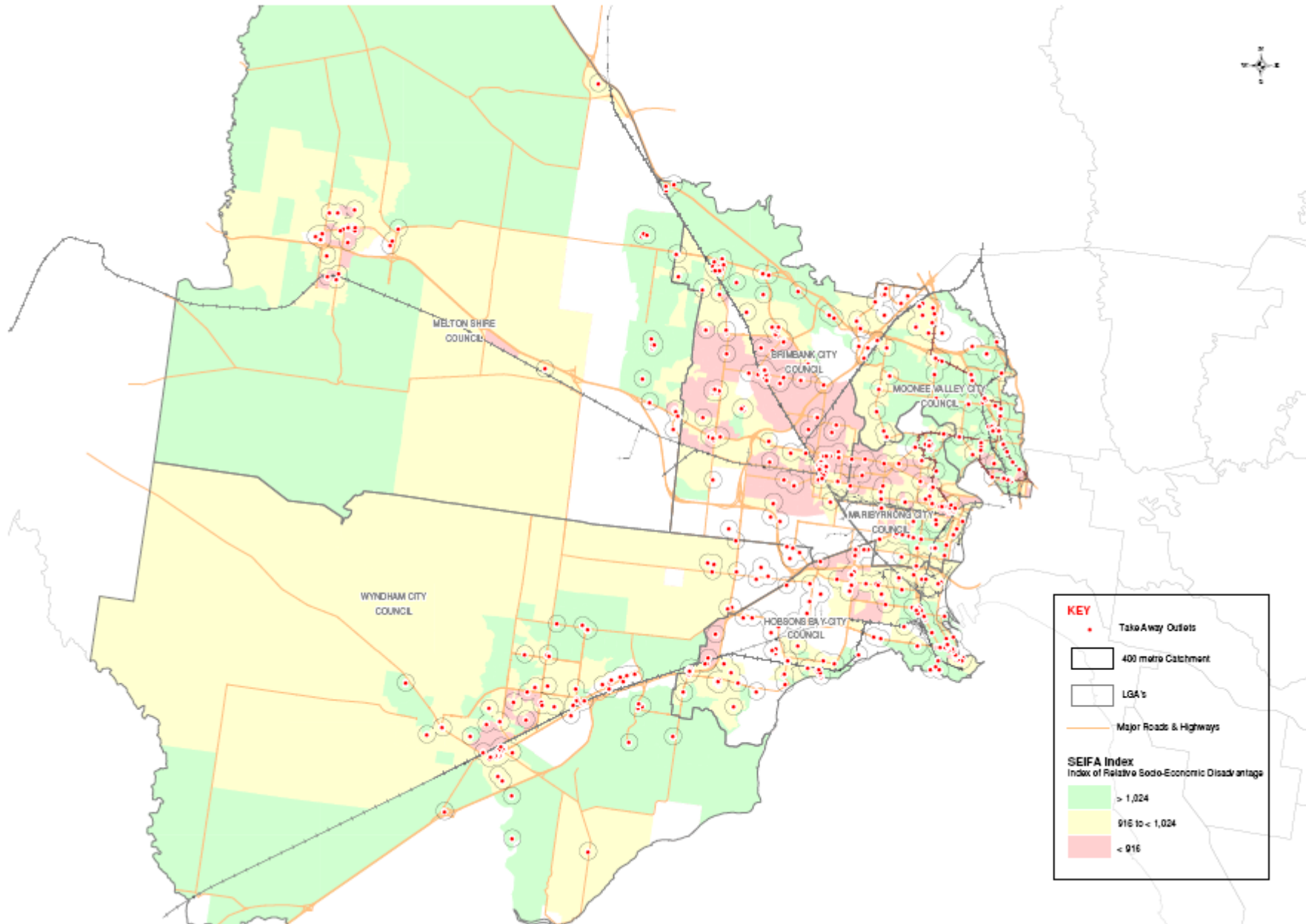- ▨   Built-Up Areas

47

Appendix E - Map E10: Cultural supermarket outlets in the west with public transport
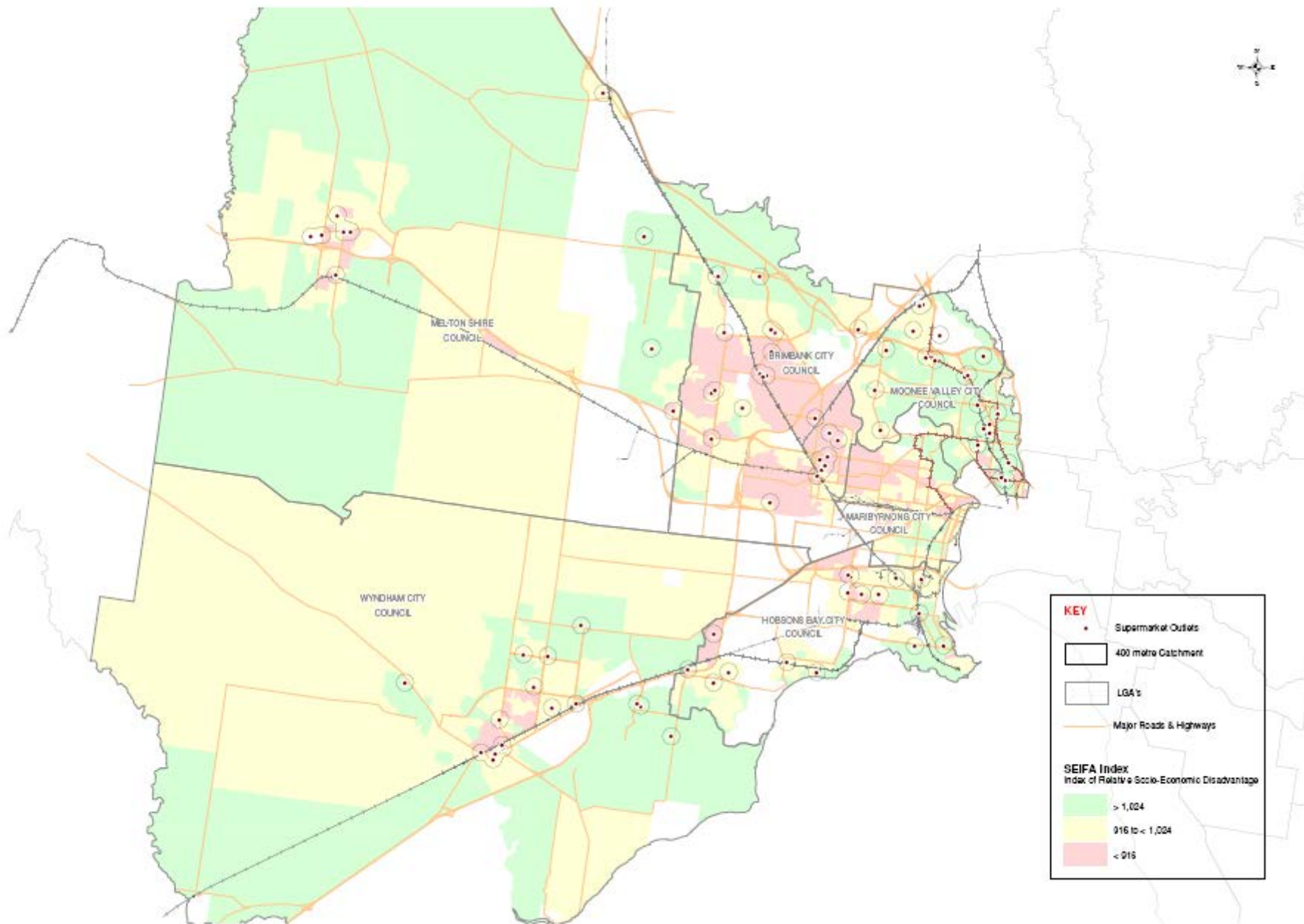
Appendix E - Map E11: Fruit and vegetable outlets in the west with SEIFA quartiles

Appendix E - Map E12: Takeaway outlets in the west with SEIFA quartiles

KEY

- Take Away Outlets
- 400 metre Catchment
- LGA's
- Major Roads & Highways

SEIFA Index
Index of Relative Socio-Economic Disadvantage

- > 1,024
- 916 to < 1,024
- < 916

Appendix E - Map E13: Supermarket outlets in the west with SEIFA quartiles

Appendix E - Map E14: Cultural supermarket outlets in the west with SEIFA quartiles

KEY
- Cultural Supermarket Outlets
- 400 metre Catchment
- LGA's
- Major Roads & Highways

SEIFA Index
Index of Relative Socio-Economic Disadvantage
- > 1,024
- 916 to < 1,024
- < 916