

# HEALTH PROMOTION AND SUSTAINABILITY THROUGH ENVIRONMENTAL DESIGN: A GUIDE FOR PLANNING



**CHRISTCHURCH**  
CITY COUNCIL · YOUR PEOPLE · YOUR CITY



# HEALTH PROMOTION AND SUSTAINABILITY THROUGH ENVIRONMENTAL DESIGN: A GUIDE FOR PLANNING

VINCIE BILLANTE  
Environmental Health Advisor  
Strategy and Planning Group  
Christchurch City Council

ISBN NO: I-877313-37-8 978-1-877313-37-0

## FOREWORD FROM THE CDHB CEO

The Canterbury District Health Board (CDHB) applauds the Christchurch City Council for their recognition of the importance of environmental design in promoting good health.

This document 'Health Promotion and Sustainability Through Environmental Design' (HPSTED) will be a valuable resource for urban planners and designers, policy analysts, developers, and others involved in planning our urban environments.

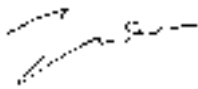
HPSTED also provides a useful framework to help organisations such as ours work together on improving the health of our communities by enabling individuals to make positive lifestyle choices. As outlined in HPSTED, a healthy community is one that promotes mauriora (secure cultural identity), waiora (environmental protection), toiora (healthy lifestyles) and te oranga, (participation in society). This way of thinking is consistent with the World Health Organisation's definition of health which is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".

A person's health is shaped by his or her personal lifestyle choices; however, many of the strongest influences on an individual's health and wellbeing come from where and how they get to work, the food they eat, social connections and their levels of physical activity. These are all outside the traditional sphere of health services.

In 2006, the Public Health Advisory Committee (PHAC) released a report entitled *Health is Everyone's Business - working together for health and wellbeing*. PHAC challenged both central and local government agencies to work together better to improve our communities' health. The same year the Ministry for the Environment released *The Value of Urban Design* with the Environment Minister, Marion Hobbs, stating that "urban design matters because it has the potential to help New Zealanders live more sustainably, happily and healthily".

The CDHB also has a part to play in promoting good urban design to help create healthy communities. In 2005, we prepared a health impact assessment (HIA) for the Greater Christchurch Urban Development Strategy Forum. A significant finding was the need for all agencies and organisations to work together to provide health-promoting opportunities.

The CDHB looks forward to seeing the principles described in HPSTED put into practice and to working with the Christchurch City Council and others to achieve better health outcomes and greater wellbeing for the people of Canterbury.



Gordon Davies  
CEO OF CANTERBURY DISTRICT HEALTH BOARD

**Canterbury**  
District Health Board  
Te Poari Hauora o Waitaha





## FOREWORD FROM THE CHRISTCHURCH MAYOR

It is a pleasure to be asked to say a few words about this timely resource, Health Promotion and Sustainability Through Environmental Design (HPSTED). A first of its kind in New Zealand, it is based on national and international research and it highlights the urban planning issues that affect people's health in Christchurch.

The link between urban planning and healthy populations has been long established. In fact, it was Aristotle who said that the most important and indispensable consideration for planning an ideal city is health. This maxim takes on a new meaning with recent international research describing the links between the urban environment and health outcomes, particularly for those suffering from chronic lifestyle conditions related to physical inactivity and the social environment in which they live in. With the Ministry of Health estimating that over 50% of New Zealanders as being overweight and over 50% of all deaths being attributed to diabetes, ischemic heart disease or cancer, now is the time for local government to take a more proactive and collaborative approach in addressing the relevant environmental factors that contribute to these problems.

Christchurch is no exception to these statistics. We too are experiencing the challenge of a growing population with the increasing demand on our health sector services. Additionally, the added stresses of modern day living are placing greater demand on our mental health and social services, and we must work together with the health sector to address these issues effectively.

To achieve our quality of life objectives, it is vital we use a proactive and multisectoral approach, as highlighted by the collaboration that helped develop the Greater Christchurch Urban Development Strategy. We now need to maintain our position as a leader in urban planning and design by incorporating planning for better health outcomes into our successful strategies. With the publication of this healthy planning document, we recognise the importance urban planning has in helping us achieve our goal of Christchurch being a healthy and sustainable city.

My vision for Christchurch is for it to be a world class sustainable city with first class quality lifestyles, a superb healthy environment, a diversity of landscapes and a unique economic base with healthy and thriving communities. It is hoped Health Promotion and Sustainable Through Urban Design will contribute to more effective urban planning for all the people of Christchurch, and we can see this vision become a reality.



Bob Parker,  
MAYOR OF CHRISTCHURCH



# ACKNOWLEDGEMENTS

This is to acknowledge the following people who freely gave their time, expertise, technical advice and support for the development of this planning guide. To each and every one of you, thank you.

- Jane Cartwright, Strategy Support Manager; Christchurch City Council (new role: CEO, Partnership Health)
- Anna Stevenson, Public Health Physician, Christchurch City Council and Canterbury District Health Board
- Alan Bywater, Programme Manager Strong Communities, Christchurch City Council
- Stephanie Knox, Planning Consultant, Melbourne, Australia
- Jamie Pearce, GeoHealth Laboratory Co-director; University of Canterbury
- Adair Bruorton, Policy Analyst, Christchurch City Council
- Keith Tallentire, Policy Analyst (Urban Design), Environment Canterbury
- Mike O'Connell, Energy Policy Analyst, Environment Canterbury
- Cheri Leighton, Urban Planner; Christchurch City Council
- Karen Banwell, Senior Policy Analyst, Christchurch City Council
- Tony Moore, Principal Adviser (Sustainability), Christchurch City Council
- Terry Moody, Principal Adviser (Environmental Health), Christchurch City Council
- Hugh Nicholson, Principal Adviser (Urban Design), Christchurch City Council
- Elizabeth Briggs, Principal Adviser (Natural Environment), Christchurch City Council
- Stuart Woods, Principal Transport Planner, Christchurch City Council
- Lawrence McIlwrath, Senior Economic Analyst, Christchurch City Council
- Paul Cottam, Senior Policy Analyst, Christchurch City Council
- Kath Jamieson, Team Leader, Principal Research Adviser, Christchurch City Council
- Patrick O'Neill, Research Analyst, Christchurch City Council
- Daniel Gargiulo, Research Assistant, Christchurch City Council
- Ivan Thomson, Principal Advisor; (Land Use and Planning), Christchurch City Council
- Alice Mortlock, Policy Analyst, Christchurch City Council
- Ingrid Gunby, Principal Analyst, Christchurch City Council
- Lynley Cook, Public Health Consultant, Canterbury District Health Board
- Jo Forward, Business Support Team Leader; Christchurch City Council

# A HEALTHY AND SUSTAINABLE COMMUNITIES PLANNING RESOURCE FOR CHRISTCHURCH

## WHAT DO YOU USE IT FOR?

This planning guide is based on the UK National Health Service's document "Watch Out for Health", the World Health Organisation publication Healthy Urban Planning (Barton and Tsourou, 2000), and the Victoria branch of the Australian National Heart Foundation's Healthy by Design (2004). It is a tool for assessing the impact of planning policies and planning proposals on public health. These planning policies and planning proposals include:

- Strategic plans
- Area plans
- Settlement plans

## WHEN DO YOU USE IT?

You use it at the policy level, strategic planning stage and if applicable, at the resource consents level. The quicker you act, the more opportunity you will have to influence the final development.

## HOW DO YOU USE IT?

Look at the relevant sections of this guide. There are fourteen themes in this guide, divided into separate sections. Some of these themes may have some key points that might be relevant to the strategy, plan or policy. Use the "Thinking about the issues" paragraph, and the "How can planners help...?" checklist to focus on key elements of the strategy, plan or policy. It is important to remember each theme is not in isolation from the others; rather, the intention is that good urban planning will promote all the sections in a holistic manner. For example, a plan that promotes transport accessibility would not do so at the expense of equity or community safety.

Use the matrix in the appendix (on pages 96-97) to show the likely impact of a strategy, plan or policy on the well-being of the community as a whole.

## IMPORTANT

The resource should be used with care – you need to consider each strategy, policy or plan on its own merits and in the context of the Council's vision for 'A Healthy and Sustainable City'.

# OVERVIEW OF THE EVALUATION CRITERIA FOR SUSTAINABILITY

This planning resource is divided into the fourteen main themes or sections you see listed on the next two pages. Each section covers some of the key points outlined in each theme that planners need to consider in the planning process. These questions are not an exhaustive list, but more of a starting point to raise awareness of some of the issues that may arise.

## ACTIVE LIFESTYLES

Do the strategies, plans or policies enable healthy exercise? Do opportunities for play and exercise exist? Are there a variety of open spaces and places – playing fields, other green space, waterways (with water quality suitable for recreation use)? Are these accessible to all? Will all Christchurch residents live within 400m, or 15minutes walk, of a park?

## TRANSPORT ACCESSIBILITY

Do strategies, plans or policies promote accessibility for all (including people with disabilities, youth, older people, families with young children, low income earners, etc.)? Do they encourage active transport? Is the transport network pedestrian and cycle-friendly? Do they reduce car-dependency? Do they enable mobility without relying on private motor vehicles to travel to work, to shop, to access services, to take part in community/public life? Will communities be able to be served by frequent, reliable and cheap public transport?

## EQUITY

Are the strategies, plans or policies fair to all current and future members of the community – are the benefits and costs of development distributed fairly? Do the proposals seek to reduce inequalities? Are existing health inequalities likely to be reduced?

## SOCIAL AND COMMUNITY CAPITAL

Do strategies, plans or policies support social cohesion (participation of, and mutual understanding between, all groups in the community) and help build social capital (trust, connectivity, and shared norms/values that help communities to work together for the common good)? Do developments support or provide opportunities for social interaction and leisure activities? Do developments foster voluntary action and opportunities, engagement in community issues and shared decision-making? Will communities be potentially severed through the inappropriate placement of major roads, commercial and industrial developments?

## CULTURAL DIVERSITY

Do strategies, plans or policies respect the considerations of the local tangata whenua? Do they seek to promote cultural diversity and increase cross-cultural relations? Do they reflect the principles outlined in the Treaty of Waitangi? Do they seek to address any cultural disparities?

## NEIGHBOURHOOD AMENITY

Do the strategies, plans or policies recognise and build on the identity of existing towns and neighbourhoods? Do they protect and integrate heritage features? Do they create a range of high quality public spaces? Are they consistent with the Urban Design Protocol (key qualities of context, character; choice, connections, creativity, custodianship and collaboration)?

## **PUBLIC SERVICES**

Will strategies, plans or policies facilitate access for all residents to good public services and facilities (eg. schools, libraries, health providers, food provision, community centres, sports and recreation facilities, cultural facilities, welfare services, Council services)?

## **HOUSING STOCK**

Do strategies, plans or policies promote an appropriate housing mix (range of sizes, prices, tenures, densities, locations)? Do they promote affordable, energy efficient and high-quality housing for all residents? Are houses built to a high sustainability standard? Do they make the most efficient use of land for housing, for instance, higher densities in appropriate locations?

## **ECONOMIC DEVELOPMENT**

Do strategies, plans or policies enable all residents to access employment and training opportunities? Does the development encourage and promote a range of jobs for local residents, and provide opportunities for a range of businesses?

## **COMMUNITY SAFETY**

Are strategies, plans or policies consistent with the goals in the Safer Christchurch Strategy (injury prevention, road safety, crime reduction)? Do proposals follow the Crime Prevention Through Environmental Design principles as outlined in the Safer Christchurch Strategy?

## **NATURAL CAPITAL**

Do strategies, plans or policies help to address Christchurch's air quality problem? Do they address threats to the quality and quantity of our water supply? Do they prevent land contamination? Do they protect and enhance Canterbury's natural biodiversity, biophilia (greenery) and kaitiakitanga?

## **RESOURCE SUSTAINABILITY**

Do the strategies, plans or policies minimise the use of non-renewable resources, minimise energy and water use, encourage waste reduction and promote recycling?

## **COMMUNITY RESILIENCE**

Will the strategies, plans or policies help to make communities more robust in the face of natural disasters, peak oil and climate change? Will they promote climate stability and minimise greenhouse gas emissions? Will they promote mechanisms to cope with climate change (eg. shade provision, management of surface water in or near residential areas to deal with mosquitoes)?

## **FOOD SECURITY**

Do strategies, plans or policies promote access to wholesome, affordable, locally-produced food? Do they safeguard productive soils from residential and industrial development? Do they enable local residents to access affordable food that encourages a balanced and healthy diet?



# INTRODUCTION

Good health is a basic human right for all people. Health is defined by the World Health Organisation as a “state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity” (Wilkinson & Marmot, 2003) The design of urban environments can influence, directly and indirectly, the health and well-being of individuals and communities. Contemporary planning theories suggest good urban and environmental design can promote healthy behaviours and an active lifestyle, leading to improved health outcomes for the population. This becomes more relevant for New Zealand, as an estimated 20% of all government public spending is on health, and a disproportionate amount of this money is spent on treating people for conditions relating to obesity, physical inactivity and mental health issues associated with modern living.

## THE ROLE OF PLANNING

Planning strategies, policies, and developments can affect human health. Sometimes the links between planning or policies and health can be immediately apparent; for instance, by providing resources and facilities that enable people to access health and social services. Other links are not as clear, but instead require more consideration. These include plans that provide enough green spaces with easy access to promote more physical activity, that limit urban expansion so car reliance and traffic congestion is reduced, and that incorporate community consultation in planning practices to enhance social capital.

## THE ROLE OF LOCAL GOVERNMENT

In New Zealand, although there is no central government directive, urban planning is required to comply with various pieces of legislation. This includes the Local Government Act 2002, which charges territorial authorities with the responsibility of promoting the social, economic, environmental and cultural well-being of communities. These four aspects of well-being align closely with other uniquely New Zealand definitions, particularly Professor Mason Durie’s concepts of Hauora (Te Whare Tapa Wha model, or total well-being) and Te Pae Mahutonga (health promotion) (see opposite).

Local governments can incorporate health outcomes into the strategy and planning processes to address the four well-beings. There has been evidence overseas that this is not only possible, but also practical. The World Health Organisation’s Healthy Cities programme has been established in parts of Europe and the United Kingdom since the 1980s. Closer to home, many healthy urban planning practices have been initiated through inter-sectoral agencies in Melbourne, Australia. Two invaluable resources produced from these overseas programmes have been “Watch Out for Health” from the National Health Service in the United Kingdom, and “Healthy by Design: A Planners’ Guide to Environments for Active Living” by the National Heart Foundation of Australia (Victoria Division).

Based on these resources, this guideline is designed to help provide a structure for the Christchurch City Council planners in assessing the likely health impacts of developments on the Christchurch community. The intention is to ensure that health is properly considered when determining strategies, policies and plans, and to influence planning proposals to maximise health benefits for all Cantabrians. It allows development plans to be justified on the basis on their ability to enhance the total well-being of the greater Christchurch population, through considering the four dimensions of well-being identified in the Local Government Act 2002.

*The Christchurch City Council is responsible for governing a population of approximately 360,000 people throughout the city limits. This is expected to increase to over 500,000 people in the next 35 years. In light of this, the Greater Christchurch Urban Development (UDS) Strategy was developed to adequately plan for this urban growth in a sustainable fashion, and the subsequent Health Impact Assessment of the UDS highlighted the potential impacts of this growth on the well-being of the resident population. It is hoped this resource will assist the planners in the implementation of the UDS to achieve the best-practice principles for healthy urban planning, and to ensure Christchurch truly becomes “A Healthy City”.*

# WHAT IS WELL-BEING?

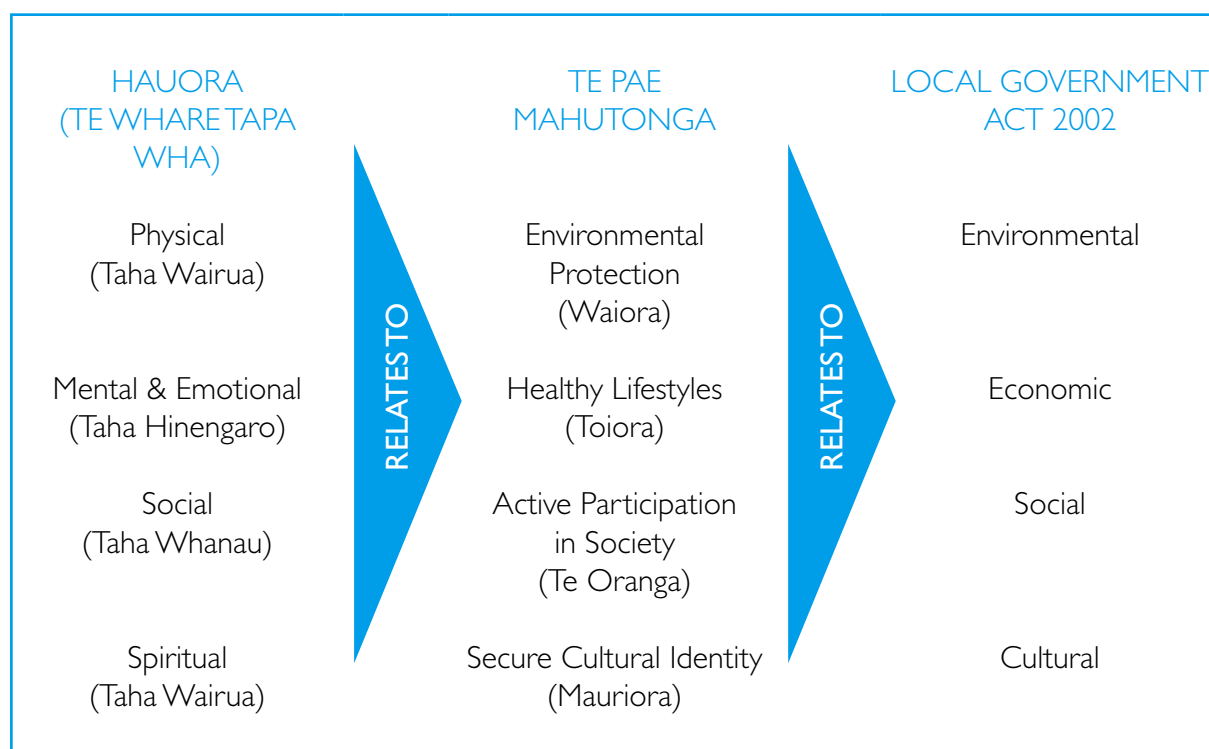
Based on the World Health Organisation's definition of health, the terms 'health' and 'well-being' are often used synonymously. The 1998 New Zealand Royal Commission on Social Policy defined what New Zealanders agree constitutes well-being and a decent quality of life. The Commission concluded that:

*[New Zealanders] have said that they need a sound base of material support including housing, health, education and worthwhile work. A good society is one which allows people to be heard, to have a say in their future, and choices in life ... [they] value an atmosphere of community responsibility and an environment of security. For them, social well-being includes that sense of belonging that affirms their dignity and identity and allows them to function in their everyday roles.*

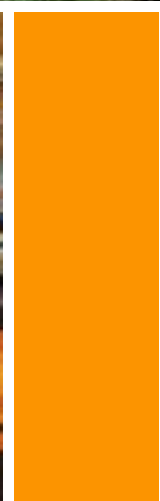
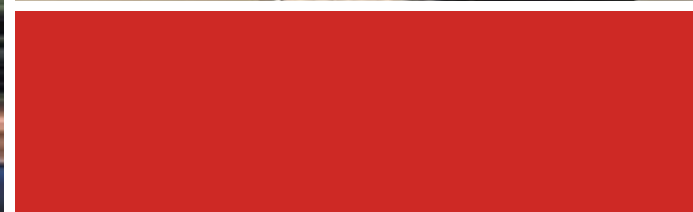
**- The Social Report 2007**

As stated previously, New Zealand, health is uniquely identified in Professor Mason Durie's concepts of Hauora (Te Whare Tapa Wha model), or total well-being, and Te Pae Mahutonga, or health promotion. Well-being is clearly linked to four different dimensions, which are inter-dependent upon each other. In these frameworks, a person or community is only as strong as their weakest dimension; hence, it is important that all dimensions of well-being be addressed and enhanced in order to achieve optimum health. The four well-beings are all inter-related, as shown in the diagram below.

## DIMENSIONS OF WELL-BEING

















# ACTIVE LIFESTYLES

- One-third of New Zealand adults are not physically active at levels sufficient to benefit their health. A physically active New Zealand population will benefit overall health.
- Physical inactivity is second to smoking as a modifiable risk factor for poor health. It is associated with 8 percent of all deaths and accounts for over 2000 deaths in NZ per year.
- Adequate levels of physical activity can reduce the risk of premature death and poor health across a number of serious diseases and conditions.
- More emphasis needs to be placed on encouraging non-recreational (ie, transport and incidental) physical activity.

- MOH Physical Activity DHB Toolkit, 2003

The environment heavily influences a person's lifestyle and activity levels. Ready access to open spaces and safe walking and cycling routes enable people to exercise regularly. The latest international research affirms that an active lifestyle can not only improve an individual's physical and mental well-being, but also reduce the rate of some cancers. The Ministry of Health and Sports and Recreation NZ (SPARC) recommend New Zealanders incorporate a minimum of thirty minutes of exercise each day to achieve health benefits.

**BENEFITS TO PHYSICAL, SOCIAL AND ENVIRONMENTAL WELL-BEING**

- Daily exercise has proven health benefits such as lowered obesity rates, reduced risk of stroke and other cardiovascular diseases, reduced risk of diabetes and increased physical fitness and mental health.
- Encouraging people to incorporate exercise into their daily routines - for example, by walking or cycling to work - reduces our dependency on motor vehicles. This can also lead to a reduction in traffic congestion and its associated air pollution.

**THE CURRENT SITUATION**

- In the 2006 Christchurch City Council "Quality of Life" survey, 39% of respondents reported they were active every day. The Christchurch Active Living Strategy has set a goal for 72% of adults to be active, with at least 43% of them getting 30 minutes of exercise five times a week.
- Every day in Canterbury, 197 people are admitted to hospital. Approximately \$3m is spent daily on health services treating various health conditions, including those attributable to risk factors such as smoking, physical inactivity, eating unhealthy food and alcohol or substance abuse. Cardio-vascular diseases are the number one cause of death in Canterbury, followed closely by cancer and respiratory system diseases. The NZ Ministry of Health has stated that the health burden by physical inactivity is second only to smoking, and a 5% increase in physical activity can net a reduction of \$25million annually for health care costs.

**CCC LTCCP  
Community  
Outcome**

- A Healthy City





### KEY QUESTION

Do proposals encourage opportunities and access to healthy exercise for all Christchurch residents?

#### THINKING ABOUT THE ISSUES

- Healthy walking or cycling routes to facilities
- Opportunities for play and exercise
- Open space
- Green space and parks for everyone
- Playing fields

### POSITIVE EFFECTS OF GOOD PLANNING FOR ACTIVE LIFESTYLES

- Healthy urban planning can encourage people of all ages to walk and cycle to get to their local facilities such as work, shops and school.
- By providing safe, attractive and convenient neighbourhood communities with a range of services, local residents have the opportunity to increase their activity levels and reduce their chances of developing the adverse health effects associated with inactivity.

## POTENTIAL NEGATIVE EFFECTS OF AD-HOC PLANNING

- Urban sprawl has created a situation of low-density housing and spreading of facilities, so people are forced to rely upon cars to make the longer trip distances. Consequently, vehicle reliance creates unhealthy car-dominated, physically inactive lifestyles.
- A lack of protection for, or easy access to green spaces and not providing facilities for all people, including seats in parks, rubbish bins and drinking fountains, limits the opportunity for exercise for the public.
- Exercise can become commodified – people who do not get enough of it in their daily lives may choose to pay a large amount to go to the gym. This can exacerbate health inequalities, as those who cannot afford to pay for pricey gym memberships may not also have the opportunity to incorporate physical activities such as walking, cycling or gardening into their daily lives because of lack of space or access. Consequently, these people may be further disadvantaged.

Walking and gardening are the two main physical activities men and women do in their leisure time.

–SPARC Key Facts, March 2007

## How can planners help Cantabrians adopt active lifestyles?

- Provide pathways on predictable travel routes that have quality surfaces and are of a suitable width for walking and cycling.
- Integrate neighbourhoods with a grid design and to increase people on the streets, provide direct and leisurely paths to destinations.
- Create communities with services and facilities within a 400m to 800m (5 to 15mins) walking radius.
- Support mixed-use development and shared-use facilities; for example, the library/cafe/community centre/school at Upper Riccarton Community and School Library, which serves both the wider community and the school community.
- Collaborate with health professionals and other service providers in project developments for urban areas.



Any town that doesn't  
have sidewalks  
doesn't love its children.  
- Margaret Mead, anthropologist



#### RELEVANT CHRISTCHURCH CITY PLAN OBJECTIVES

- City Plan 7.4 – Cyclists
- City Plan 7.5 – Pedestrians
- City Plan 9.1 – Local Community Facilities
- City Plan 9.2 – Metropolitan Community Facilities
- City Plan 14.1 – Recreation and Open Spaces Provision and Diversity
- City Plan 14.2 – Recreation and Open Spaces Efficient and Effective Use
- City Plan 14.3 – Recreation and Open Spaces Design and Appearance





# TRANSPORT ACCESSIBILITY

The effects of transport congestion are numerous and include longer and less predictable travel times; increased pollution levels; higher operating costs for businesses relying directly or indirectly on transport; reduced productivity; increased driver stress; and passenger discomfort due to overcrowding on peak-hour public transport services.

**- Ministry for the Environment, 2007**

Being able to use various modes of transport is essential for Cantabrians to have access to work, leisure and essential services. However, research overseas has shown there are adverse health effects such as increased obesity (which is now proven to be linked to cancer), cardiovascular diseases and diabetes rates when a population becomes more reliant on private motor vehicle transport. These can be alleviated when more active forms of transport such as cycling and walking are encouraged and made more accessible by being safer and user-friendly.

**BENEFITS TO PHYSICAL, SOCIAL AND ENVIRONMENTAL WELL-BEING**

- Promoting more active forms of transport such as walking and cycling reduces the incidence rate of heart disease and other chronic illnesses due to physical inactivity.
- Shorter travel distances can enable easy access to facilities and services for all people, including the very young, older persons and people with a disability, which can reduce social isolation for these groups.
- Research has shown the likelihood of establishing a physical activity habit for life is best achieved by promoting physical activity at young ages; for example, with active transport options such as walking and cycling.

**THE CURRENT SITUATION**

- According to the 2006 Census, Cantabrians have the highest car ownership per capita in New Zealand.
- Driving a car, truck or van remains the main means of travel to work for about 76% of Christchurch residents (2006 Census), with a further 5% travelling as a passenger.
- According to the 2006 Census, 12% use bus, car pooling, walking or jogging for transport to employment. Bus patronage equalled 15.6 million passenger trips in 2006, or approximately 43 trips per person – which is close to the 6% target set by the Canterbury Regional Land Transport Strategy for public transportation.

- The Canterbury Regional Transport Strategy specifies a target of 12% cycling for Christchurch residents. The 2006 Census shows only 7% of residents cycle to work.
- In 2005, the estimated social cost of traffic-related accidents came to over \$200 million, including time for loss of work, medical and legal costs, and property damage.
- In the next 20 years, there is a projected increase of 40-50% in traffic volumes and a threefold increase of congestion. Hence, a trip that currently takes 30 minutes will take much longer in 20 years time.

**CCC LTCCP  
Community  
Outcome**

- An Attractive and Well Designed City





## KEY QUESTION

Do the proposals promote accessibility for all and encourage active transport options?

### THINKING ABOUT THE ISSUES

- Access inclusive of all residents, i.e. people with disabilities, youth, low income earners, older people, young families, etc.
- Transport network is cycle and pedestrian friendly
- Affordable public transport is readily available
- Residents have easy access to employment, shops, services

## POSITIVE EFFECTS OF GOOD PLANNING FOR TRANSPORT ACCESSIBILITY

- Offering a range of travel mode options can influence travel behaviour; people can have the freedom to choose between modes, rather than relying on motor vehicles as the only option.
- By promoting safe, direct, convenient, comfortable and attractive cycling and walking networks, people can choose active transport options if in close proximity to shops, work and services.
- Traffic calming measures (ie. chicanes, judder bars) can slow vehicle speeds in residential areas.

## POTENTIAL NEGATIVE EFFECTS OF AD-HOC PLANNING

- Poor planning can restrict access to services and amenities for marginalised groups in society (such as people with disabilities, the very young or elderly), thereby reinforcing any other disadvantages or inequalities.
- Retail shopping mall centres with large car park areas and all shops facing inside decrease outside foot traffic, increase car reliance, and may have a detrimental effect on small business retailers reliant on local residents.
- Issues around congestion, air pollution, traffic-related accidents and the obesity epidemic associated with car reliance can be made worse with poor neighbourhood layout design and planning that supports urban sprawl.

**In a SMARTRAQ study in Atlanta, results showed every extra thirty minutes spent in a car was associated with a 3% increase in the odds of being obese.**

**– Frank & Engelke, et al, 2003**

## How can planners help transport accessibility?

- Examine connectivity in local areas – how far can people walk on paths, how many destinations exist within walking catchments, are there connections between cul-de-sacs is the neighbourhood layout permeable for walking?
- Separate walking/cycling and cycling/vehicles paths on predictable travel routes with good signage.
- Ensure shared pathways are of good quality for multi-use; widths, surfaces, materials, gradients, and foliage are all adequate and easily maintained.
- Develop integrated and complete cycle networks and routes.
- Integrate public transport with walking and cycling routes by providing cycle storage facilities near bus stations, and having bus stops near shops and parks, etc.
- Provide adequate seating at well-lit and clearly signed bus stops.
- For more information see [www.tps.org.uk](http://www.tps.org.uk)





If you design communities for automobiles, you get more automobiles. If you design them for people, you get walkable, liveable communities.

- Parris Glendening and Christine Todd Whitman,  
US politicians

#### RELEVANT CHRISTCHURCH CITY PLAN OBJECTIVES

- City Plan 7.1 – A Sustainable Transport System
- City Plan 7.2 – Road Network
- City Plan 7.3 – Public Transport
- City Plan 7.4 – Cyclists
- City Plan 7.5 – Pedestrians
- City Plan 7.6 – Off Street Parking and Loading
- City Plan 7.7 – Transport Safety
- City Plan 7.8 – Access to the City



# EQUITY

Humanity's greatest advances are not in its discoveries – but in how those discoveries are applied to reduce inequity. Whether through democracy, strong public education, quality health care, or broad economic opportunity – reducing inequity is the highest human achievement.

– **Bill Gates, entrepreneur and philanthropist**

## **DEFINING EQUITY, INEQUALITY & DEPRIVATION**

- Equity is defined as applying a concept of fairness in matters relating to social and economic aspects. Hence, regardless of a person's background or circumstances, measures are put in place to ensure a more equitable outcome and the principles of social justice are met.
- Inequality in this resource refers particularly to the situation where there is an unbalanced distribution of either resources or disease rates; for instance, higher infectious disease rates amongst certain sectors of society.
- The NZ Deprivation Index reflects aspects of social and material deprivation. The index combines nine variables from the 2006 Census. The scale ranges from 1 to 10, where 1 represents the least deprived areas and 10 the most deprived areas. A value of 10 indicates that the area is in the most deprived decile areas in New Zealand.

Poor social and economic circumstances affect health throughout life. According to the World Health Organisation and the Ministry of Social Development, people further down the socio-economic ladder usually run at least twice the risk of serious illness and premature death as those near the top. Good health involves reducing levels of educational failure, reducing insecurity, income inequities, unemployment and improving housing standards.

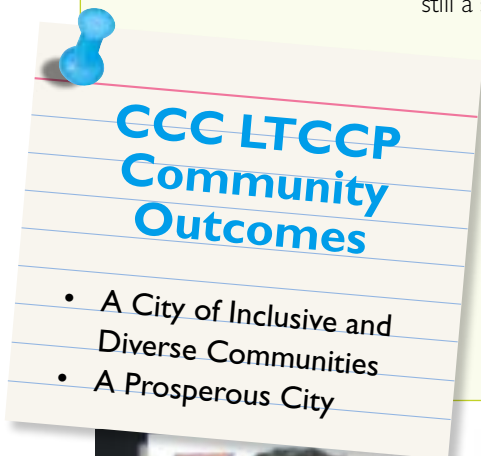
### BENEFITS TO PHYSICAL ECONOMIC AND SOCIAL WELL-BEING

- Addressing equity issues through strategies and policies to target vulnerable groups can improve the health outcomes for these groups. For instance, offering subsidies to improve housing insulation to low income households can reduce the incidence of respiratory illnesses.
- Providing access to a range of social, health and emergency services in high deprivation areas through public transport and service planning can improve the well-being of residents from these demographic groups.
- Providing a mix of social housing stock for low-income families can reduce the risk of over-crowding in high deprivation areas, which can reduce stress, substance abuse, violence and crime rates in communities.

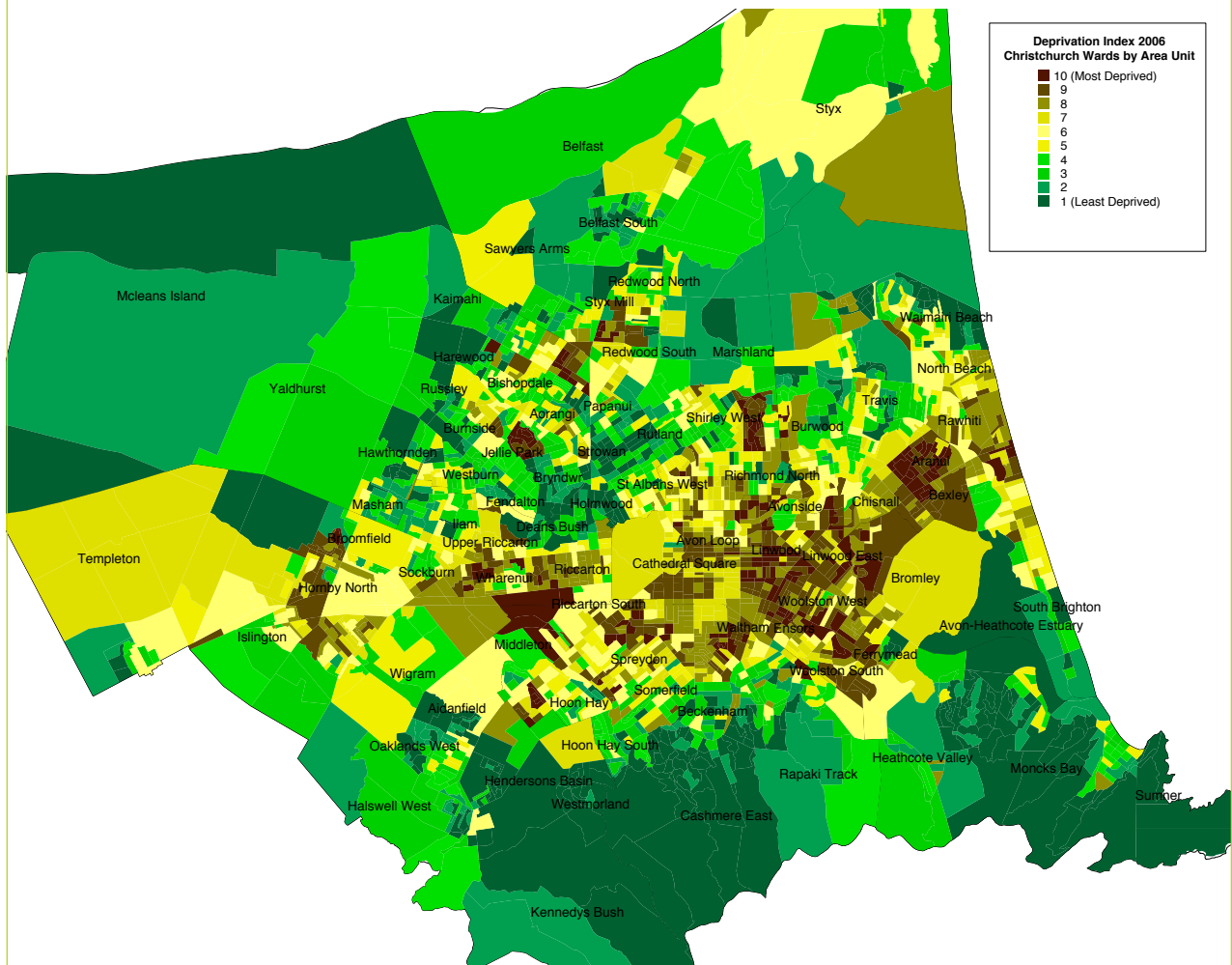
### THE CURRENT SITUATION

According to the 2006 Census and the 2006 Quality of Life Survey:

- In 2006, 15% of households (20,500), had an income of less than \$20,000 annually. The real incomes of people in the lower percentile have not moved as much as those in the higher income brackets. This not only has the immediate effects of deprivation such as the inability to pay for goods and services, but also contributes to disengagement, social exclusion and the sense of not belonging by people on limited incomes.
- The number of people (aged 15 and over) on the unemployment benefit decreased by 67% over the past ten years, however the invalid's or sickness beneficiaries have increased over this same time period, which results in still a significant number of people on limited incomes.
  - According to the CDHB, people who are socio-economically more deprived are hospitalised twice as often for preventable conditions as those who are less deprived in Christchurch.
  - There are variations in the suburban areas of Christchurch, with areas such as Aranui, Phillipstown, and Waltham showing significant disparities in unemployment rates (up to twice that of the city overall), the number of beneficiaries, children, single-parent families, and general disadvantages such as having less access to transport or telecommunications. The Community Outcomes indicators show there has been no progress in reducing disadvantages for vulnerable groups.



## CHRISTCHURCH MAP OF DEPRIVATION, 2006



### KEY QUESTION

Are the proposals fair to all current and future members of the community – are the benefits and costs of development distributed equitably so that high deprivation communities are not further disadvantaged?

#### THINKING ABOUT THE ISSUES

- Potential opportunities exist for all members of the community to engage services
- Development does not disadvantage any community group members
- Any existing health inequalities are addressed

### POSITIVE EFFECTS OF GOOD PLANNING FOR EQUITY

- Planning can help to address inequities through the provision of a range of diverse employment opportunities, and by providing opportunities for new business development in local areas.
- Enabling access to services for all residents through careful planning of service locations and being able to use public transport easily to get there may help to reduce health outcome disparities within vulnerable groups such as the very young, older people, and people with disabilities. For example, ensuring good public transport from suburbs such as Aranui and Bromley to dental care facilities located centrally may remove one barrier for accessing these services and improve the oral health of young children, particularly Maori and Pacific Islanders.



## POTENTIAL NEGATIVE EFFECTS OF AD-HOC PLANNING

- Planning does not directly affect income, but it does have many indirect links. The planning system can be used, for example, to hinder or to help the process of providing opportunities for local employment, which can contribute to the economic well-being of a community.
- Inequities can be made worse through haphazard planning; for instance, through transport or zoning practices that limit access to health or social services, or a high density of health-harming businesses such as fast food restaurants and alcohol retailers in less advantaged areas.
- Planning can create situations of socio-economic divisions being emphasised; for instance, when 'semi-gated communities' are allowed to develop.

**Evidence shows that accessible local facilities (when combined with a safe and attractive street system with connectivity) enhance social equity by reducing the need to own a car to get access to services.**

**– Ministry for the Environment 2005**

## How can planners help to address equity issues?

- Examine service facility provisions in areas of high deprivation – can people living in the local area access services easily, either through direct local access or through public transport?
- Are there opportunities for locals in high deprivation areas to engage with each other in a social context through recreational facilities, local employment, or shopping facilities that have street frontages and easy access?
- Examine the mix of local businesses in the area when considering new business proposals – are there a disproportionate number of facilities such as takeaway shops, pubs, and gambling agencies in areas of high deprivation that exacerbates inequity?



Studies show that mixed use urban design may contribute to better employment opportunities for low-income earners, providing more employment opportunities close to home and enhance entire low-income communities.

– Ministry for the Environment 2005

#### RELEVANT CHRISTCHURCH CITY PLAN OBJECTIVES

- City Plan 4.2 – City identity – Amenity
- City Plan 4.3 – City identity – Heritage
- City Plan 5.2 – Maori Community Development
- City Plan 6.2 – Business Activity and Urban Growth
- City Plan 7.3 – Public Transport
- City Plan 9.1 – Local Community Facilities
- City Plan 9.2 – Metropolitan Community Facilities
- City Plan 9.3 – Community and Cultural Development
- City Plan 11.2 – Housing Needs
- City Plan 12.1 – Distribution of Business Activity
- City Plan 12.2 – Role of the Central City
- City Plan 12.5 – Role of Central City Edge
- City Plan 14.2 – Recreation and Open Spaces Efficient and Effective Use





# SOCIAL & COMMUNITY CAPITAL

Evidence suggests that denser urban areas have more social connectedness and visible vitality. Research has shown a correlation between commuting time and civic engagement – each 10 minutes spent commuting cut all forms of civic engagement by 10%.

– Ministry for the Environment, 2005



Social and community capital is generally defined as the connections between social networks and can be differentiated into three distinct types – bonding capital, where similar people connect with one another; bridging capital, where there are ties between different people, for instance from different socio-economic levels; and linking capital, where people have ties with those in authority. Social support mechanisms are needed to facilitate all three types of capital in a positive manner to establish and maintain a strong community.

**BENEFITS TO SOCIAL WELL-BEING**

- Providing local recreation and community service facilities can enhance social cohesion and increase community capital, which may reduce individual stress levels and illness.
- Providing local educational facilities, for example early childhood centres and community and recreational centres, may increase community capital by providing opportunities for local residents to connect.
- Communities with strong bridging and linking capital have the capacity to address social issues of concern; this may occur through meaningful dialogue between various people and by enabling access to decision-making processes for all residents.

**THE CURRENT SITUATION**

According to the 2006 Census and the 2006 Quality of Life Survey:

- Christchurch residents generally report a positive connection with their neighbours, however, only 53% responded with saying they have a sense of community and a social network in which they engage with, and 60% state ethnic diversity is a positive for the city. These indicators have increased from previous years.
- The rates of democratic participation vary, with as low as 39% voter turnout for local authority elections, and 79% for general elections; however, the trend is showing an increase from previous years. The Community Outcomes indicator trends show a reported decline in shared decision-making and collaborative planning with the community.

**CCC LTCCP  
Community  
Outcomes**

- A City for Recreation, Fun and Creativity
- A City of Inclusive and Diverse Communities
- A Well-Governed City







### KEY QUESTION

Do planning policies and processes encourage and promote social cohesion, social capital and democratic participation?

#### THINKING ABOUT THE ISSUES

- Opportunities for social interaction, leisure activities, and local empowerment (through consultative processes) are provided
- Avoidance of community severance by major roads or large commercial schemes

### POSITIVE EFFECTS OF GOOD PLANNING FOR SOCIAL & COMMUNITY CAPITAL

- Having a safe and readily accessible environment that encourages social interaction can help to facilitate social cohesion.
- Mixed-use development in town centres, commercial environments, and residential neighbourhoods can help to widen social options and provide paid and unpaid employment opportunities.
- Additionally, having strong community interactions in local centres through consultation in the decision-making processes may encourage more participation in local body elections if people feel they have a stake in the outcomes.

## POTENTIAL NEGATIVE EFFECTS OF AD-HOC PLANNING

- Planning can have an indirect effect on social cohesion and social capital; these can be undermined by insensitive housing development and the dispersal of resident communities.
- A loss of community facilities can also result from the dominance of large commercial schemes that tend to limit pedestrian access, and therefore, the opportunities for local communities to engage socially.
- Placing large compliance restrictions on initiatives such as local early childhood education centres and after school recreational programmes can limit educational and social opportunities for children, and limit employment opportunities (paid and voluntary) for parents.

People who optimise their personal capital can change their world. People who optimise their social capital can change the world.

– Mick Cope, author

## How can planners help promote positive social capital?

- Examine the position and accessibility of community facilities such as recreation centres, community centres and libraries – are there any facilities that locals can gather for social occasions or public events like voting?
- Are there educational facilities for people of all ages within easy access?
- Are local residents active participants in the decision-making process for community planning? Is there the opportunity for shared decision-making with local communities through consultation with city planners?
- Are place-specific identities promoted and developed to enhance a sense of place?



### RELEVANT CHRISTCHURCH CITY PLAN OBJECTIVES

- City Plan 4.1 – City identity – Form
- City Plan 4.2 – City identity – Amenity
- City Plan 4.3 – City identity – Heritage
- City Plan 5.2 – Maori Community Development
- City Plan 9.3 – Community and Cultural Development
- City Plan 11.2 – Housing Needs
- City Plan 12.1 – Distribution of Business Activity
- City Plan 12.2 – Role of the Central City
- City Plan 12.5 – Role of Central City Edge
- City Plan 14.2 – Recreation and Open Spaces Efficient and Effective Use





# CULTURAL DIVERSITY

Migrants and ethnic minorities living in deprived urban areas often face a double risk of being socially excluded - due to local urban residence and due to ethnicity. And often this has a negative spill-over effect on access to the labour market, inclusion in the civil society, etc. At the same time living close to family, kin and friends within the same urban area can have a positive influence on participation and involvement of migrants and ethnic minorities in urban political life, local communities as well as general society.

**– Denmark Ministry of Refugee Immigration and  
Integration Affairs, 2003**



Many factors contribute to culture – for example, ethnicity, socio-economic status and personal characteristics such as age or sexual orientation. A strong sense of cultural identity (whanaungatanga) is recognised as a key factor for an individual’s health. Living in an environment of acceptance and tolerance enhances mental health and promotes social cohesion between people within a multi-cultural community. The New Zealand Office of Ethnic Affairs promotes engagement with other cultures as a way to increase understanding and enhance cross-cultural relations.

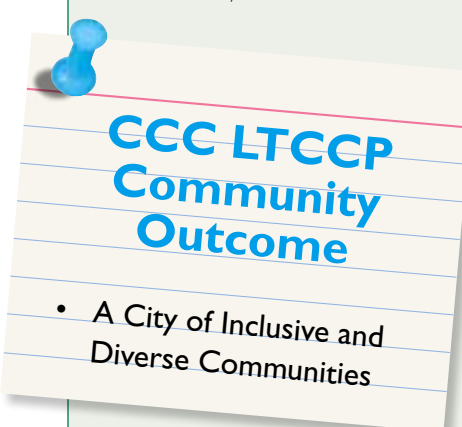
### BENEFITS TO SOCIAL AND CULTURAL WELL-BEING

- Providing opportunities and an inclusive environment for individuals and community groups to feel safe expressing their identity can encourage social cohesion and enhance an individual's well-being.
- Including cultural associations in community consultation can increase the social support for minority groups, particularly those vulnerable to discrimination or racism, by giving them a voice in local issues.
- Adhering to the principles in the Treaty of Waitangi helps Maori community members to feel secure and respected, which can improve the well-being of all members and result in better health outcomes for Maori.

### THE CURRENT SITUATION

- New Zealand now has people originating from 145 countries amongst its residents. Christchurch currently has a population base of 75% European/Pakeha, 8% Maori, 8% Asian, 3% Pacific Islander and 14% described as “Other”. There are over 130 ethnic associations within Christchurch.
- The Christchurch City Council has aligned its projects and programmes that relate to cultural diversity to the community goals in the LTCCP. A ‘diversity season’ of events included Race Relations Day, the Culture Galore festival, the Ethnic Football festival, the Pacific Pathways World Heritage Week, Matariki and Maori Language Week at Christchurch City Libraries, Around the World Workshops at Christchurch Art Gallery, and an Outward Bound multi-ethnic course for young people. The Council also supports the Intercultural Assembly.

- In general, Maori and Pacific Islander people are over-represented in the lower socio-economic groups, and generally show worse health statistics for many health conditions (such as adult-onset diabetes) than their Pakeha or Asian counterparts.
- The acceptance of ethnic diversity has increased over time, with 60% of the Christchurch population indicating ethnic diversity as a positive aspect of the city in 2006. However, racism and discrimination is still an issue for many ethnic minorities, particularly recent immigrants.



### CCC LTCCP Community Outcome

- A City of Inclusive and Diverse Communities



## KEY QUESTION

Do proposals reflect the principles outlined in the Treaty of Waitangi, promote cultural diversity and enhance cross-cultural relations?

### THINKING ABOUT THE ISSUES

- Principles of Treaty of Waitangi observed; those of protection, participation, and partnership
- Promotion of cross-cultural relations and cultural understanding by avoiding 'ethnic ghettos' or segregation of people of different cultures
- Tangata whenua interests addressed through appropriate consultation
- Promote acceptance of cultural diversity by including representatives of different cultures (in the wider sense) in community consultation processes; this includes people of all ages, ethnicities, socio-economic status, and orientations

## POSITIVE EFFECTS OF GOOD PLANNING FOR CULTURAL DIVERSITY

- Planning can assist with the development of social cohesion in a community by providing facilities that encourage interaction of diverse groups in a social context, like neighbourhood shops or community centres.
- A key step towards cultural integration within a community is to take into account the views of the different cultures living within that community, and in particular, consulting the local tangata whenua to ensure Maori interests are addressed.
- Cultural heritage can be reflected in elements of urban design through the inclusion of public cultural art works, adopting cultural design principles and using cultural aspects in building structures.
- Planning can address cultural disparities by ensuring adequate access to facilities and providing a range of amenities that reflect the cultural diversity and interests of the local residents.

## POTENTIAL NEGATIVE EFFECTS OF AD-HOC PLANNING

- Planning in itself cannot create a tolerant attitude towards other cultures directly, but through planning schemes, cultural disparities can be reinforced or addressed.
- Planning can contribute to the development of 'ethnic ghettos' or cultural disparities by limiting access for minorities to a range of affordable housing stock and public or social services.

If we are to achieve a richer culture,  
rich in contrasting values,  
we must recognise the whole gamut  
of human potentialities,  
and so weave a less arbitrary social fabric,  
one in which each diverse human gift  
will find a fitting place.  
– Margaret Mead, anthropologist

## How can planners help to promote and enhance cultural diversity?

- Create opportunities for community consultation, particularly targeting tangata whenua and other minority groups in the local community, to give local residents a sense of ownership of local facilities. This can be done by using the community consultation practices within the Social Impact Assessment or Health Impact Assessment tools.
- Examine the facilities in the community – do they reflect the various cultures of the local residents, either through design or through inclusion of artworks?
- Do local facilities provide opportunity for community members to congregate for various cultural festivals?



### RELEVANT CHRISTCHURCH CITY PLAN OBJECTIVES

- City Plan 5.1 – Maori and Their Resources
- City Plan 5.2 – Maori Community Development
- City Plan 9.3 – Community and Cultural Development
- City Plan 11.2 – Housing Needs
- City Plan 11.3 – Non-residential Activities







# NEIGHBOURHOOD AMENITY

The measure of any great civilization  
is in its cities, and the measure of  
a city's greatness is to be found  
in the quality of its public spaces,  
its parks and squares.

- John Ruskin, 19th Century social critic

Living spaces that establish and maintain the qualities of the Urban Design Protocol (the ‘Seven Cs’ - context, character, choice, connections, creativity, custodianship, collaboration) increase people’s sense of well-being. People who enjoy and identify with their local neighbourhoods may be more likely to engage in community activities and establish social connections. Well-designed public amenities encourage use by the local residents and increase their social and emotional well-being.

### BENEFITS TO PHYSICAL, SOCIAL AND ENVIRONMENTAL WELL-BEING

- Compact and well-designed neighbourhoods allow people to choose to walk or cycle to local shops, schools and other amenities, and may enable people to achieve higher levels of physical activity with ensuing health benefits.
- Providing high quality open spaces for recreational use can provide people with more opportunities to incorporate physical activity into their lifestyles, which can enhance their mental and emotional health.
- A neighbourhood amenity that is aesthetically pleasing and designed with safety considerations increases feelings of security and safety in individuals, and enhances the community spirit of local residents.

### THE CURRENT SITUATION

- According to the Community Outcomes Monitoring Report, an overwhelming majority of residents are either satisfied or very satisfied with the way Christchurch looks and feels. Less than 10% either felt dissatisfied or did not have any feeling either way.
- The Community Outcomes indicators report a decline in the areas of cleanliness and litter; vandalism and graffiti, and protection of heritage buildings, places and objects.
- Since the amalgamation with Banks Peninsula, open space within the Christchurch City boundary has increased, but not at the same rate as the population, so the actual hectares of open space per 1000 people appear to be declining. However, the Community Outcomes indicators report an improvement in access to open spaces by the Christchurch public. Currently, 93.9% of Christchurch residents live within 400 metres of an open park.

### CCC LTCCP Community Outcome

- An Attractive and Well-designed City





### KEY QUESTION

Do proposals recognise and build on existing town and neighbourhood identities and create a range of high quality public spaces?

#### THINKING ABOUT THE ISSUES

- Promote an attractive environment
- Good urban design
- High quality public spaces
- Walking, cycling and public transport
- Conserve existing quality townscape and heritage

### POSITIVE EFFECTS OF GOOD PLANNING FOR NEIGHBOURHOOD AMENITY

- Planning can assist by promoting high local environmental quality; by segregating polluting and noisy industrial uses of land from high density residential areas; by promoting alternative forms of public transport and discouraging car use; and by supporting energy efficiency through utilising renewable energy sources in new developments.



## POTENTIAL NEGATIVE EFFECTS OF AD-HOC PLANNING

- Poor amenities can undermine well-being and contribute to physical and mental illness by increasing social isolation and discouraging interaction with the surrounding neighbourhood.
- Lack of opportunities to walk and cycle can contribute to lower levels of physical activity.



## How can planners help promote good neighbourhood amenity?

- Examine the allocation of land use – are noisy industrial areas well segregated from residential areas, and any environmental pollution hazards addressed?
- Consider the transport issues – are there opportunities for residents to make use of public or active transport to access local amenities and reduce car dependency?
- Examine the appearance and structure of new developments – do they fit in with the local area and promote community ownership?
- Do new developments provide high quality public spaces?
- Have Crime Prevention through Environmental Design (CPTED) principles been considered in the design?



## RELEVANT CHRISTCHURCH CITY PLAN OBJECTIVES

- City Plan 4.1 – City identity – Form
- City Plan 4.2 – City identity – Amenity
- City Plan 11.1 – Diverse Living Environments
- City Plan 11.3 – Non-residential Activities
- City Plan 11.4 – Adverse Environmental Effects (Living)
- City Plan 11.5 – External Appearance
- City Plan 11.6 – Neighbourhood Improvement
- City Plan 12.4 – Central City Amenity
- City Plan 12.6 – Amenity
- City Plan 12.8 – Amenity, Design and Effects of Suburban Centres
- City Plan 12.11 – Amenity and Effects of Industrial Areas
- City Plan 13.4 – Rural Amenity Values
- City Plan 14.1 – Recreation and Open Spaces Provision and Diversity
- City Plan 14.2 – Recreation and Open Spaces Efficient and Effective Use
- City Plan 14.3 – Recreation and Open Spaces Design and Appearance
- City Plan 14.4 – Recreation and Open Spaces Adverse Environmental Effects







# PUBLIC SERVICES

Some people argue that we should limit choice in favour of good local services. My response is simple: why should we assume those two concepts are mutually exclusive? Choice is just as desirable for public service users as it is for any other consumer. From my time in Health I know that choice empowers people's lives.

**– John Hutton, UK Labour MP**

The provision of good quality accessible public services, particularly social, educational, recreational, and health facilities, has a positive effect on well-being. The opportunity for members of the public to engage in the operation and management of those services has a positive effect for the greater community.

### BENEFITS TO SOCIAL AND ECONOMIC WELL-BEING

- Ensuring public facilities are located throughout the community encourages engagement and ownership of those facilities by the local residents, which enhances social capital.
- Providing easy access and transport to health facilities, in both primary and secondary care, encourages people to seek medical assistance before they become too ill. This can reduce the number of hospital admissions with preventable conditions for disadvantaged groups in communities.
- Co-siting public services with neighbourhood centres provides improved access and opportunities for social contact, and supports local communities and businesses.

### THE CURRENT SITUATION

According to the 2006 Quality of Life survey and the Community Outcomes Baseline Report:

- Visits to Council-owned sport and recreation facilities have increased by 96% since 2000. About two-thirds of the residential population have consistently reported that taking part in the arts is easy, and just over half have stated they find access to the central city always easy. Access to facilities has also been reported to have improved over time.
  - A relatively small proportion of the population (5%) reported difficulty accessing public transport, the central city, or parks.
  - Accessing health services has neither improved nor declined in the reported Community Outcome indicators.

### CCC LTCCP Community Outcomes

- An Attractive and Well-designed City
- A City for Recreation, Fun and Creativity
- A Healthy City





## KEY QUESTION

Do proposals facilitate and promote access for all community members to good public services and facilities?

### THINKING ABOUT THE ISSUES

- Access to local good quality public services enabled
- Multi-use of different public services – combining services in community facilities
- The right type and level of services in the right place
- Sustainable design and construction of public buildings
- Co-siting with neighbourhood centres
- Community participation encouraged

## POSITIVE EFFECTS OF GOOD PLANNING FOR PUBLIC SERVICES

- By providing good local public services that are easily accessed by residents, public participation and ownership are encouraged. This also minimises the need to travel to access these services and encourages better health outcomes.
- Using environmentally sustainable materials in the development of public service buildings assures local residents of the sustainability of the structures for future generations. It also eliminates the risk of posing health threats to local residents through environmental pollution.
- Creating health-promoting and well-used neighbourhood centres supports both public services and local businesses and can enhance social capital.



## POTENTIAL NEGATIVE EFFECTS OF AD-HOC PLANNING

- Failing to plan for the different public service needs of an area leads to an unsustainable community.
- By focusing on service centralisation for health and government services, social cohesion and social capital are adversely affected as residents are forced to travel longer distances to access these services.
- Additionally, by not providing adequate public transport, more time spent is travelling in individual motor vehicles which results in more energy being used and more greenhouse gases being produced.



## How can planners help increase access and use of public services?

- Consider the location of public services – are they easily accessible through public or active transport and spread throughout the community?
- Examine the design considerations – are the buildings and developments for public services sustainable, made with environmentally sound materials and aesthetically suitable for the local community?
- Has the local community been consulted on the development of new public services?



### RELEVANT CHRISTCHURCH CITY PLAN OBJECTIVES

- City Plan 6.2 – Business Activity and Urban Growth
- City Plan 6.3 – Peripheral Urban Growth
- City Plan 7.3 – Public Transport
- City Plan 8.1 – Provision of Utilities
- City Plan 9.1 – Local Community Facilities
- City Plan 9.2 – Metropolitan Community Facilities
- City Plan 9.3 – Community and Cultural Development
- City Plan 11.3 – Non-residential Activities
- City Plan 12.1 – Distribution of Business Activity
- City Plan 12.2 – Role of the Central City
- City Plan 12.5 – Role of Central City Edge
- City Plan 12.7 – Role of Suburban Centres
- City Plan 12.9 – Role of Retail Park Areas
- City Plan 12.10 – Role of Industrial Areas
- City Plan 14.1 – Recreation and Open Spaces Provision and Diversity







# HOUSING STOCK

I've always described density in terms of dollars: The more you have of it, the more you can "buy" with it – referring to amenities, of course (cultural, entertainment, dining, etc.).

When I get asked what's the single most important thing that can be added to a city to help revitalize it (they are always waiting for the latest retail or entertainment thing...), I always say "housing."

– Seth Harry (US urban designer)

Housing that is affordable, secure, dry and warm is critical for ensuring good health outcomes, particularly for the very young and elderly. Current theories suggest that the foundations of adult health build upon those laid in early childhood and before birth, so ensuring young families are in adequate housing may enhance the health of future generations. Sanitation and hygiene issues have long driven urban planning ventures throughout history, and building improvements have reduced illness - especially mental illness - in vulnerable groups.

#### BENEFITS TO TOTAL WELL-BEING

- Providing a range of housing that is secure, warm and dry through adequate insulation can reduce physical and mental health issues.
- Ensuring housing stock meets the needs of, and is affordable for, large families reduces the risk of overcrowding, which can reduce stress, family violence and infectious disease.
- High to medium density housing that is well designed and has good community facilities and high quality open spaces may encourage social connectedness through increased interactions, and improved accessibility.
- Housing that overlooks public streets and public spaces can contribute to personal safety and social cohesion.

#### THE CURRENT SITUATION

- In 2006, 64% of Christchurch houses were owned or held in a family trust, with or without a mortgage. About 28% of all dwellings were rented properties. Housing New Zealand is the largest social housing landlord, with Christchurch City Council being the second largest social housing landlord in the city.
- New Zealanders generally aspire to own their own homes. Housing costs have increased significantly in the fluctuating housing market, with the Christchurch median house sale price hitting an all-time high of \$325,000 in March 2007. This limits low-income earners' ability to purchase their own homes.
- The Community outcomes indicators report households that live in an owner-occupied dwelling spend significantly less of their earnings on housing costs than households paying rent do. This means renters spend a higher proportion of their income on housing costs, as their incomes are generally lower. Hence, saving for a deposit becomes difficult and this further limits their ability to purchase a home.
- Changes to the Building Code through the Building Act 2004 are requiring houses to be built or retrofitted to higher standards for energy and water efficiency.
- A large proportion of Christchurch houses are cold and damp; significant intervention measures (above and beyond current practice) are required to make them warm, dry and comfortable to live in.





### KEY QUESTION

Do proposals promote an appropriate mix of affordable, high-quality housing for all residents?

#### THINKING ABOUT THE ISSUES

- Good design (including passive solar design)
- Location, orientation and aspect
- Energy and water efficiency
- Range of tenures, sizes, prices, densities
- Using recycled and renewable resources
- Adaptability
- Accessibility
- Relationship to public spaces

### POSITIVE EFFECTS OF GOOD PLANNING FOR HOUSING STOCK

- Housing stock can be improved by ensuring the design, orientation and construction minimises heat loss through the retrofitting of existing stock and by ensuring new stock is built to a high standard.
- Having a sufficient range of housing tenure with good services is essential, as is having community buildings that can be adapted for multiple purposes, such as health, education and leisure.
- Providing adaptable housing for vulnerable groups, such as the elderly or those with physical or mental disabilities, enables those residents to live independently for as long as realistically possible with adequate home-care provisions.



## POTENTIAL NEGATIVE EFFECTS OF AD-HOC PLANNING

- Insufficient, overcrowded housing built with toxic materials and unsafe structures is detrimental to physical health. Overcrowded conditions are linked with mental health issues, physical illness and accidents.
- Inadequate housing design, with poor locality and orientation, can increase vandalism, crime and feelings of fear and insecurity.
- Very tall residential developments with no access to open space or community services can affect mental health and the social connectivity in a neighbourhood, which can lead to social isolation, depression and ill health.

The house itself is of minor importance. Its relation to the community is the thing that really counts. A small house must depend on its grouping with other houses for its beauty, and for the preservation of light air and the maximum of surrounding open space.

- Clarence Stein (US urban planner)

## How can planners help promote improved housing stock?

- Consider the range of housing stock in a local area – are there different types of dwellings to accommodate a range of people; for instance, people with young families, professionals, retirees, those with disabilities?
- Check on the energy uses – do the houses conform to recommended insulation levels and heating types without relying on the use of fossil fuels? Are alternative forms of water heating (such as solar hotwater systems) considered? Do they eliminate the need for unhealthy forms of heating such as unflued LPG heaters?
- Examine the safety aspects – are the houses made with safe and environmentally sound materials, do they follow the principles of CPTED to protect the residents from crime or violence, and do they allow easy access for people of varying abilities?



### RELEVANT CHRISTCHURCH CITY PLAN OBJECTIVES

- City Plan 6.1 – Urban Consolidation
- City Plan 6.2 – Business Activity and Urban Growth
- City Plan 6.3 – Peripheral Urban Growth
- City Plan 9.1 – Local Community Facilities
- City Plan 9.2 – Metropolitan Community Facilities
- City Plan 10.3 – Amenity Values
- City Plan 10.4 – Anticipated Land Uses
- City Plan 11.1 – Diverse Living Environments
- City Plan 11.2 – Housing Needs
- City Plan 11.3 – Non-residential Activities
- City Plan 11.4 – Adverse Environmental Effects (Living)
- City Plan 11.5 – External Appearance
- City Plan 11.6 – Neighbourhood Improvement







# ECONOMIC DEVELOPMENT

A successful economic development strategy must focus on improving the skills of the area's workforce, reducing the cost of doing business and making available the resources business needs to compete and thrive in today's global economy.

**- Rod Blagojevich (US politician)**

Quality employment and job security can increase health and well-being, as well as making it easier to pursue a healthier lifestyle. Equitable income, job satisfaction, a sense of making a valuable contribution and wider social networks through work are all factors in this. Conversely, unemployed people suffer an increased risk of ill health, mental health problems and even premature death.

### BENEFITS TO SOCIAL AND ECONOMIC WELL-BEING

- Providing opportunities for new business development increases the employment opportunities and results in social cohesion through shared work experiences.
- People who are securely employed tend to have better mental and emotional health.
- Reducing the economic disparities between the top income earners and the lowest income earners improves the health outcomes of a population; research overseas has shown countries and regions with the largest gaps between the rich and the poor have the worst health outcomes.

### THE CURRENT SITUATION

- The reported year on year economic growth for Canterbury in June 2007 was at 2.9%, which is above the national average of 2.6%. The Community Outcome indicators report an improvement in a range of areas, including new businesses and more people employed.
- According to the 2006 Census, the unemployment rate was 2.9%. Christchurch is currently experiencing a low unemployment rate, although there are certain areas of the city where there are significant discrepancies in the local rate compared to the city (some as much as twice as high, for instance in Waltham).
- The inflation-adjusted annual median income for Christchurch households increased by 16%, or by \$6,480, in the five year period between 2001 and 2006 to \$48,200, compared to the national average of \$51,400. However, it is important to note there is a higher rate of non-responses to survey questions relating to income, particularly for the elderly, the young, beneficiaries and certain ethnic groups, so the real net income for disadvantaged people may not reflect this reported increase.
- Retail sales are up overall for the past ten years, but there was a slight decrease in 2006. Tourism remains a high income earner for Canterbury, with the tourism industry being reported as the largest employer, followed closely by wholesale trade and manufacturing. The service sector also fulfils a significant role in both economic outputs as well as employment.
- The number of people leaving school with a qualification has increased, but 21.4% still leave school with no qualifications. Additionally, the number of students suspended or being stood down from schools is increasing. Christchurch Polytechnic Institute of Technology has the largest number of enrolments in 2007, followed closely by University of Canterbury, Lincoln University, Massey University extramural programme and the Otago School of Medicine (Christchurch). A total of 33.5% of residents either completing a bachelor's degree or gaining some other post-school qualification, which is an increase from previous years.



### CCC LTCCP Community Outcomes

- A Prosperous City
- A City of Lifelong Learning



## KEY QUESTION

Do proposals enable all residents to access a range of employment and training opportunities?

### THINKING ABOUT THE ISSUES

- Ability to access employment
- Training opportunities
- Diversity and quality of jobs for local residents
- Opportunities for business to provide employment
- Ability for local business to sustainably increase remuneration

## POSITIVE EFFECTS OF GOOD PLANNING FOR ECONOMIC DEVELOPMENT

- Urban planning can be linked to strategies for economic regeneration by facilitating attractive opportunities for businesses through strengthening specific locations from a business perspective. This can encourage a diversification of employment opportunities in terms of both the scale and scope. The added benefit is improved protection of employment opportunities by lowering the sensitivity of the local economy to external shocks. Hence local job opportunities are protected.
- Equitable transport strategies can also play an important part in providing access to job and educational opportunities. The transportation strategies should seek to separate bulk freight movements from passenger (especially household type) movements.
- The provision of local work opportunities can also encourage shorter trip lengths, and thus, reduce emissions from transport and enable health-enhancing walking or cycling transport options.
- Ensuring jobs are close to residential areas and other services, notably childcare, can make employment opportunities more convenient to access.



## POTENTIAL NEGATIVE EFFECTS OF AD-HOC PLANNING

- Planning can frustrate or facilitate the provision of job opportunities. Employment opportunities created in inaccessible locations, or a lack of variety of jobs in a community can negatively affect health, both directly and indirectly.
- Inappropriate planning can lead to a disconnect in the market place and potentially unviable business ventures/opportunities

## How can planners help promote economic development and work opportunities?

- Consider the range of businesses in a local area – are there opportunities for businesses to expand, or for new businesses to open within the area?
- Examine the transport options – are there enough appropriate transport options, aside from private cars, to enable people to get to work or school in a timely fashion?
- Reduce the likelihood of developing inappropriate business areas, that generate unsuitable vehicle transportation patterns
- Encourage diversity in retail shops within a local community – promote street frontage, provide adequate footpaths and provide seating areas to enhance social interaction.
- Ensure the natural resource base (and associated opportunities) are protected in a way that minimises potential conflicts with the surrounding communities.
- Ensure that the industries attracted to the region are able to work collectively and collaboratively.
- Facilitate a process to accelerate the wealth effect (sustainable high wage employment) through building the local business base in a manner that ensures that:
  - export (international/global) potential is developed;
  - growth projections are protected and achieved;
  - near-term, near-to-market opportunities are safeguarded; and
  - global competitiveness is increased.



Cities are for people. A city is where people come to work and raise their families and to spend their money and to walk in the evening. It is not a traffic corridor.

– John Norquist – US politician

#### RELEVANT CHRISTCHURCH CITY PLAN OBJECTIVES

- City Plan 6.2 – Business Activity and Urban Growth
- City Plan 7.8 – Access to the City
- City Plan 12.1 – Distribution of Business Activity
- City Plan 12.4 – Central City Amenity
- City Plan 12.6 – Amenity
- City Plan 12.8 – Amenity, Design and Effects of Suburban Centres
- City Plan 12.9 – Role of Retail Park Areas
- City Plan 12.10 – Role of Industrial Areas







# COMMUNITY SAFETY

Urban design can help to make towns and cities safer and more secure; the risk of crime is lower with interconnected network street systems than with complex cul-de-sac neighbourhoods.

- Ministry for the Environment, 2005

The biggest cause of accidents is road traffic, with vulnerable groups such as the young, elderly and those with disabilities, being particularly at risk. Accidents in and around the home are also the greatest single threat to life for NZ children and young people. Reducing crime rates can enhance people's physical and mental well-being, as well as enhance social cohesion within the community.

### BENEFITS TO SOCIAL WELL-BEING

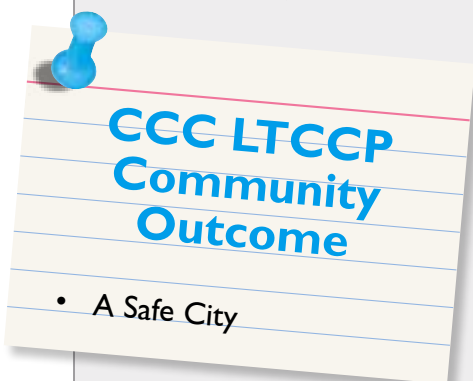
- Providing local community facilities where neighbours can congregate and socialise enhances social capital, and increases the likelihood of neighbours looking out for each other, which enhances feelings of security and safety.
- A perception of safety has an impact on stress, mental health and social isolation for individuals in a community.
- Street designs that provide direct and leisurely paths to neighbourhood destinations encourage people to be mobile and increases community interaction.
- Adequate signage and traffic calming measures, such as reduced speeds in school zones, reduce the risk of traffic accidents.

### THE CURRENT SITUATION

- In 2006, the rate of reported crime was down to 1000 per 10,000 people, and the crime resolution rate by the NZ Police appeared to remain at about 36%. Although areas such as burglary and youth offending appear to be relatively static or slightly decreasing, violent offending is increasing, with 2006 showing the lowest rate of violence crime resolution at only 68.9%.
- The injury rates for people aged 65yrs+ are still significantly high, reaching a peak of 2,409 hospital discharges for unintentional injuries per 100,000 people in 2005. The second highest rate of injuries occurs with the young people aged 0-14 years of age, but these figures have declined since 1989. However, the reported cases of child abuse or neglect to Child Youth and Families have risen during this time.
- Road crash fatalities have declined to a rate of 2.5 per 100,000 people in 2006, the lowest since 1990.

However, the rate of serious injuries in 2006 was higher at 43 per 100,000 people, but this is still a 59% decrease since 1990.

- The feeling of safety has increased across all areas in Christchurch in the 2006 Quality of Life survey, with 94% of residents saying they felt safe in their home after dark. The city centre still rates the lowest in all the indicators for feelings of safety.
- The domestic violence rate in Christchurch has increased by 18.6% since 2003, reaching a rate of 15.3 per 10,000 people in 2006. However, the resolution rate has declined over time to about 83.5% in 2006, which is the lowest rate recorded since 1996.





### KEY QUESTION

Are proposals consistent with the goals in the Safer Christchurch Strategy of injury prevention, road safety, and crime reduction?

#### THINKING ABOUT THE ISSUES

- Promotion of injury prevention
- Road safety issues addressed
- Traffic calming, home zones, school zones
- Promotion of crime reduction
- Effective security and street surveillance
- Good design for community safety

### POSITIVE EFFECTS OF GOOD PLANNING FOR COMMUNITY SAFETY

- Traffic calming techniques to slow the speed of road traffic and give priority to pedestrians and cyclists are critical to a safer environment.
- The detailed design and layout of residential and commercial areas can ensure a natural process of surveillance over public spaces that reduces both the fear of and the actual incidence of crime.
- Community involvement in the creation of the built environment creates a sense of ownership that can help to reduce fear of crime.



## POTENTIAL NEGATIVE EFFECTS OF AD-HOC PLANNING

- Urban planning can do much to worsen the problems of safety in communities, which includes freedom from assault and from the fear of assault. Inadequate lighting and inappropriate vegetation can increase the opportunities for assault or other crimes.
- Where the local pedestrian environment is intimidating and inconvenient, people use cars and social interaction is reduced.
- Unintentional injuries can be increased in buildings and public areas where appropriate risk assessments have not been considered in the planning process; for instance, stairs that are too small and narrow, or non-slippery surfaces used in areas in contact with water.

Every individual of the community at large has an equal right to the protection of the government.

– Alexander Hamilton, US President

## How can planners help promote community safety?

- Consider the principles outlined in the Safer Christchurch Strategy – do proposals adhere to the guidelines outlined in the Crime Prevention Through Environmental Design (CPTED) resource?
- Consider the use of traffic calming measures such as reduced speed zones and raised zebra pedestrian crossings to reduce the likelihood of traffic accidents.
- Examine the pedestrian crossings – are they clear, conveniently placed, and if lighted, timed appropriately to ensure people of all abilities and crossing speeds can get across?
- For any proposals that incorporate cul-de-sac developments, do they have clear and safe access ways to allow cyclists and pedestrians a direct route to neighbouring streets?
- Examine the street frontages – are they attractive, interesting and welcoming? Do they encourage social interaction with local residents?
- For more information see [www.lgnz.co.nz/projects/CPTED](http://www.lgnz.co.nz/projects/CPTED)



#### RELEVANT CHRISTCHURCH CITY PLAN OBJECTIVES

- City Plan 6.1 – Urban Consolidation
- City Plan 6.3 – Peripheral Urban Growth
- City Plan 7.7 – Transport Safety
- City Plan 9.1 – Local Community Facilities
- City Plan 9.2 – Metropolitan Community
- City Plan 10.1 – Subdivision and Natural Hazards







# NATURAL CAPITAL

Man – despite his artistic pretensions,  
his sophistication, and his many accomplishments  
– owes his existence to a six inch layer of topsoil  
and the fact that it rains.

– **author unknown**

The link between public health and the quality of air, water and soil is clear. These environmental qualities entirely underpin the health and prosperity of our society. Consequently, the Resource Management Act 1991 was designed to protect and mitigate the environmental impacts of human activity. However, despite these and other legal controls Christchurch continues to experience adverse health effects caused by poor air, water and soil quality.

#### BENEFITS TO PHYSICAL, SOCIAL AND ENVIRONMENTAL WELL-BEING

- The health benefits of improved air quality include the reduction of chronic lung diseases (asthma, emphysema, etc.) and heart conditions in residents. This is particularly for those in high deprivation areas of Christchurch, as they are exposed to higher levels of air pollution. Improved air quality also improves the aesthetics of Christchurch and enhances feelings of well-being in local residents.
- Good water quality and high sanitation standards are essential for preventing disease.
- Additionally, good quality soil that is free from contamination ensures the essential nutrients are in local food production, and enables residential developments and community activities that are environmentally safe and free from contamination.

#### THE CURRENT SITUATION

- Christchurch is renowned for its water quality, having a good source of pure artesian groundwater. While the per capita water abstraction has declined over the past 12 years, the forecast population increase for the city and the expected decline in rainfall, will place pressure on ground water resources. Development above recharge areas also increases the risks of groundwater contamination. Residential water abstraction accounts for approximately 57%, with commercial and industrial accounting for 21%.
- Christchurch's air quality is particularly susceptible because of the geography of the city, the relatively calm winter weather and the use of wood fires for heating. The level of PM<sup>10</sup> concentration emissions has

exceeded National Environmental Standard thresholds on average about 38 times per year over the past five years, which is an improvement as it is decreasing. However it is not close to the one day per year exceedence level stated by the Ministry for the Environment, which the National Environment Standard sets as a national requirement by 2013.

- The Christchurch metropolitan area has some of the most variable soil conditions in the region. In a 2006 Environment Canterbury report on soil conditions, it was stated there were significant differences between urban and rural soils, particularly for lead, which indicates urban pollution is affecting the soil quality in Christchurch. In addition, there are other potentially harmful trace elements also present in Christchurch city soils that are being recorded, most notably nickel, mercury and zinc.



### CCC LTCCP Community Outcomes

- A City of People who Value and Protect the Natural Environment
- A Healthy City



### KEY QUESTION

Do proposals help to address Christchurch's air quality problem, the threats to the quality and quantity of our water supply, and to preserve our soil quality?

#### THINKING ABOUT THE ISSUES

- Promotion of air, water and soil quality
- Minimal air, water, soil and noise pollution
- Minimise land contamination
- Water sensitive urban design and rainwater harvesting
- Threats to water supply quality and quantity addressed

### POSITIVE EFFECTS OF GOOD PLANNING FOR NATURAL CAPITAL

- Urban planning can impose standards and criteria that any new development has to meet. It can promote on-site air and water quality measures, and ensure development does not take place where there is a threat of flooding or aquifer contamination.
- Planning can also assist by promoting local environmental quality through less-polluting forms of public transport and energy and fuel use options, particularly for heating and transport.
- Soil qualities can be maintained by limiting the excessively intensive agricultural and clearing schemes, and by enforcing strict criteria for the disposal of developmental waste to ensure contamination does not occur.



## POTENTIAL NEGATIVE EFFECTS OF AD-HOC PLANNING

- Planning can indirectly affect water supply if housing, commercial, agricultural and infrastructure developments fail to protect the aquifers that supply the local water, and leachate filters into the water table.
- Air quality is more directly affected by ineffective land use and transport strategies that increase road traffic and pollution from industry.
- Soil quality is adversely affected through degradation from intensive agriculture or deforestation schemes and by mineral contamination from commercial or industrial developments.

Anything else you're interested in is not going to happen if you can't breathe the air and drink the water. Don't sit this one out. Do something.

– Carl Sagan, US scientist

## How can planners help to improve and protect our natural capital?

- Develop urban forms that reduce the need for vehicle movements and that encourage active or public forms of transport to reduce vehicle emissions.
- Reduce barriers (e.g. fast track consent processes) to the uptake of renewable energy technologies or best practice developments, especially on commercial and industrial sites.
- Develop tools (e.g. standards, information, incentives) that encourage the protection of the air, water and soil including the capture and use of rainwater.
- Through contracts and consents specify that the Resource Efficiency in Building and Related Industries guidelines are used for construction and deconstruction.
- Consider the full lifecycle impacts of plans – the projected life cycles of all the materials used in developments.



### RELEVANT CHRISTCHURCH CITY PLAN OBJECTIVES

- City Plan 2.1 – Land and Soil
- City Plan 2.2 – Water
- City Plan 2.3 – Air
- City Plan 2.4 – Natural Features and Habitats
- City Plan 8.3 – Adverse Environmental Effects (Utilities)
- City Plan 11.4 – Adverse Environmental Effects (Living)
- City Plan 13.1 – The Rural Land and Soil Resource
- City Plan 13.2 – Water Resources
- City Plan 14.4 – Recreation/Open Spaces Adverse Environmental Effects





# RESOURCE SUSTAINABILITY

I'd put my money on the sun and solar energy.  
What a source of power!  
I hope we don't have to wait 'til oil  
and coal run out before we tackle that.

– Thomas Edison, US inventor

The relationship between environmental damage caused by human settlement and ill health is now recognised in modern urban development. Historically, ill health effects caused by poor sanitation and housing quality has been a driving force behind urban improvements, but modern technology has enabled the links between the environment and health to be better understood. The Resource Management Act 1991 is the regulatory legislation that addresses environmental issues in New Zealand, and all planning projects are required to comply with the statutes identified.

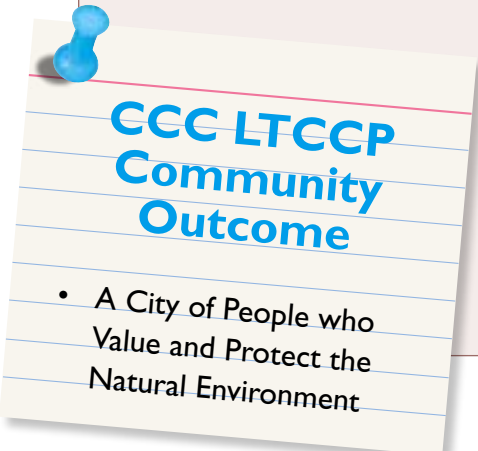
#### BENEFITS TO PHYSICAL, SOCIAL AND ENVIRONMENTAL WELL-BEING

- Avoiding any environmental chemical contamination can prevent physical and emotional illnesses caused by chemical pollution.
- Keeping levels of waste to a minimum can limit the spread of water-borne or infectious diseases and improve the aesthetics of an area, which enhances the sense of pride and community spirit.
- Reducing the use of non-renewable energy sources, such as fossil fuels, decreases air pollution and the rate of respiratory conditions such as asthma, bronchitis and emphysema.
- Health impacts due to climate change can be mitigated through addressing the causes of climate change, such as greenhouse gas emissions and environmental contamination.

#### THE CURRENT SITUATION

- Christchurch tends to rely heavily on non-renewable energy sources, with only 38% of the city's energy coming from renewable sources in 2004. The total energy consumed by the city increased by 30% between 1992 and 2004, and the current demand is rising at about 3% per annum.
- An increasing number of reports say that within the next decade the demand for oil would have outstripped supply. The world will be entering a period of permanent oil decline (Peak Oil). This will have a dramatic impact upon the entire economy, including our ability to provide and access basic services and supplies.
- The emissions of CO<sub>2</sub> have increased by 0.4 tonnes per person between 1990 and 2004. Under the Kyoto Protocol, New Zealand is required to meet a 5% reduction of greenhouse gas emissions from the 1990 rates by 2012, which would mean a 30% reduction from the 2005 emission rates.

- Despite widespread recycling, New Zealand has the third highest disposal of waste per person in the world. In Christchurch each person disposes of 777 kilograms of waste per year and 60% of what we buy is disposed of within six weeks.
- The Council's cleanfill bylaw prohibits the disposal of man-made, and where possible, re-usable materials into cleanfills. The result is that all construction and demolition wastes are now required to be sorted and recycled.



### CCC LTCCP Community Outcome

- A City of People who Value and Protect the Natural Environment



### KEY QUESTION

Do the proposals minimise use of non-renewable resources, minimise energy and water use, encourage waste reduction, and promote recycling?

#### THINKING ABOUT THE ISSUES

- Reduce, reuse and recycle materials and substances
- Minimise water and energy use
- Minimise use of fossil fuels
- Promote water sensitive urban design
- Minimise land contamination
- Reuse existing buildings
- Choose environmentally sustainable suppliers, products and services

### POSITIVE EFFECTS OF GOOD PLANNING FOR RESOURCE SUSTAINABILITY

- Urban planning can set and enforce standards and criteria that any new development has to meet. It can ensure local recycled and renewable materials are used whenever possible in the building construction process.
- New building types can be encouraged that incorporate composting and growing food. Brownfield sites and/or derelict urban land can be developed
- Additionally, reduced reliance on fossil fuels reduces the health impacts of air pollution and greenhouse gas emissions.



## POTENTIAL NEGATIVE EFFECTS OF AD-HOC PLANNING

- Not implementing or enforcing strict sustainability criteria can result in excessive waste production and contamination through inadequate waste disposal, or air pollution from residential or commercial development sites that adversely affects the health of the local residents.
- Excessive waste in a residential area not only affects the aesthetic quality of the neighbourhood, but can also affect the mental and social health of the residents.
- Abandoned existing buildings can increase crime and vandalism rates, and pose a physical risk to young children who may play in them.

Plans to protect air and water, wilderness and wildlife are in fact plans to protect man.

– Stewart Udall, US politician

## How can planners help to encourage resource sustainability?

- Consider the energy requirements of new developments – are there opportunities to utilise renewable sources of energy to enhance sustainability?
- Examine the materials proposed for development – have recycled materials been considered for the development of any new buildings or structures?
- Examine proposals for best practice principles, and not just compliance, with the Resource Management Act 1991 – are there initiatives proposed that go beyond the minimum requirements that can be promoted for other developments?
- Consider the principles outlined in the Sustainable Energy Strategy – do proposals adhere to the recommendations and guidelines suggested?



### RELEVANT CHRISTCHURCH CITY PLAN OBJECTIVES

- City Plan 2.9 – Environmental Awareness
- City Plan 3.1 – Energy Conservation
- City Plan 8.2 – Efficient Utilities
- City Plan 8.3 – Adverse Environmental Effects (Utilities)
- City Plan 11.4 – Adverse Environmental Effects (Living)
- City Plan 12.8 – Amenity, Design and Effects of Suburban Centres
- City Plan 12.11 – Amenity and Effects of Industrial Areas
- City Plan 14.4 – Recreation and Open Spaces Adverse Environmental Effects







# COMMUNITY RESILIENCE

Concerns for public health and safety include but extend beyond atmospheric dispersion of hazardous substances. The health problems associated with the extreme forms of urban weather and climate can threaten survival, as exemplified by the record heat wave that scorched Europe in August 2003, claiming an estimated 35,000 lives.

– **Office of Federal Coordinator of Meteorology, 2004**

Resilient communities are those that plan and prepare for inevitable and significant risks. The main risks faced by Christchurch are drought, flood, earthquake, peak oil, energy security, influenza epidemic, tsunami and sea level rise. Each risk will have significant social, economic and environmental effects. They will also have significant health impacts, especially for vulnerable groups, such as the very young and very old. Through planning, these risks can be identified, avoided, reduced and prepared for so that fewer people will be affected, helping to make our community more adaptable and resilient to disasters and future climatic changes.

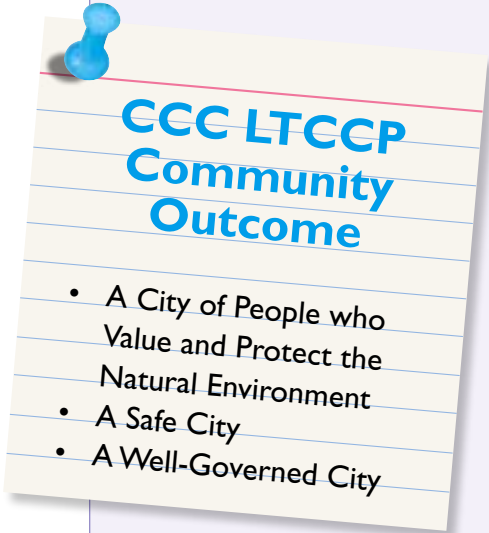
#### BENEFITS TO SOCIAL AND ENVIRONMENTAL WELL-BEING

- Providing local facilities to be used in cases of civil emergencies enhances the feelings of security and safety, and promotes the community engagement with civil defence participation.
- Engaging and co-ordinating community and non-governmental groups and agencies who specialise in responding to emergencies in Christchurch Civil Defence planning activities can mitigate the effects of a natural disaster and enhance social connectedness.
- Addressing climate change issues such as the production of greenhouse gases can limit the illnesses and health impacts caused by weather extremes and improve the health outcomes for the community.

#### THE CURRENT SITUATION

- Christchurch is at risk from natural hazards, and is reportedly overdue for a major earthquake. Seaside and low lying suburbs are susceptible to flooding, tsunamis and rising sea levels, while hillside properties are susceptible to slips and rock falls.
- Christchurch residents appear to have a good sense of preparedness for natural disasters, with 95% having enough food for three days and 76% having three days of cooking facilities in 2006. However, less than half reported having enough water to last for three days in the 2006 Civil Defence survey, which shows no improvement from previous years.
- The Civil Defence Emergency Management Act 2002 has provided the framework for the Christchurch City Council and Environment Canterbury to develop any plans and strategies to deal with managing hazards through the Canterbury CDEM Plan.

- According to the NZ Ministry of Health, the World Health Organisation has warned the current risk for a pandemic influenza outbreak is high, particularly for bird flu. Pandemic influenza outbreaks have historically affected the Canterbury population both economically and socially, causing death and disruption of services. The Ministry of Health has issued warnings and provided educational campaigns to help prepare communities and businesses for a pandemic influenza outbreak.
- Communities must reduce greenhouse gas emissions to avoid potentially catastrophic impacts in the future and also adapt to the climate as changes occur. NIWA scientists say Christchurch must prepare for less rainfall, increased temperatures, more frequent and intense storm events and more westerly conditions. These climatic conditions could generate potential health impacts ranging from heat exhaustion and increased asthma, to new or changing diseases and risks to public safety.



### CCC LTCCP Community Outcome

- A City of People who Value and Protect the Natural Environment
- A Safe City
- A Well-Governed City



## KEY QUESTION

How can we make our community more resilient to natural disasters, climate change and peak oil?

### THINKING ABOUT THE ISSUES

- Promotion of community civil defence
- Adapting to a modifying climate
- Minimise production of greenhouse gases
- Reduce energy use in transport and buildings
- Provision of shade
- Residential areas surface water management addressed

## POSITIVE EFFECTS OF GOOD PLANNING FOR COMMUNITY RESILIENCE:

- Urban planning can affect the rates of human activity-related greenhouse gas emissions by influencing energy use in buildings and transport, by developing renewable energy sources and by promoting the sustainable use of existing fossil energy sources such as gas and LPG.
- Incorporating sustainability considerations at the early planning stages of a project will help achieve economic, social and environmental goals simultaneously in both the short term and over the long term. Using environmental sustainability as a key planning principle will create smarter and more successful plans and projects.



## POTENTIAL NEGATIVE EFFECTS OF AD-HOC PLANNING

- Planning can contribute to the hazards associated with natural disasters, which can further exacerbate existing health conditions by cutting off access to facilities and services, and creating conditions where infectious diseases and water-borne diseases are rife.
- Furthermore, by failing to consider policies that encourage a reduction in fossil fuel use or include energy conservation in the building process, planning can actually contribute to the climatic problems associated with natural disasters.

It is not the strongest of the species that survive, or the most intelligent, but the one most responsive to change.

– Charles Darwin, naturalist

## How can planners help to make our community more resilient?

- Identify, plan and prepare for natural disasters and climatic changes.
- Provide community facilities that serve as multi-purpose facilities in times of need, such as during natural disasters or extreme weather conditions.
- Consider design features that can minimise damage caused by natural disasters – can the buildings and structures withstand earthquakes, are there opportunities to develop stop-banks to prevent floods causing damage, or ways of planting resilient vegetation that can act as firebreaks in urban areas?
- Examine transport routes for cases of natural disasters – do residents or emergency services have easy access through more than one route to and from the local areas, either to get to safety or to assist others in need of rescue?



## RELEVANT CHRISTCHURCH CITY PLAN OBJECTIVES

- City Plan 2.4 – Natural Features and Habitats
- City Plan 2.5 – Natural Hazards
- City Plan 2.9 – Environmental Awareness
- City Plan 3.1 – Energy Conservation
- City Plan 8.3 – Adverse Environmental Effects (Utilities)
- City Plan 10.1 – Subdivision and Natural Hazards
- City Plan 11.4 – Adverse Environmental Effects (Living)
- City Plan 14.4 – Recreation and Open Spaces Adverse Environmental Effects







# FOOD SECURITY

Food insecurity is a long-term condition of poverty and usually takes the form of skipped meals, limited portions or poor quality foods. The consequences of a chronic lack of food include more frequent and severe sickness, reduced concentrations and learning capacity, and impaired social functioning. Conversely, many people experiencing food hunger or food insecurity are also caught in the newly recognised and rapidly intensifying obesity epidemic.

**– Ed Bolen & Kenneth Hecht,  
California Food Policy Advocates, 2003**

Food security is access by all people, at all times, to enough appropriate food for an active healthy life. Nearly 40% of the oil used in New Zealand is used to grow, process, manufacture and distribute food. As the global price of oil escalates, the cost of food will substantially increase, especially imported food and food from large scale centralised production. Retaining local sources of food will be vital for our continued well-being. Public health campaigns consistently encourage the eating of more fruit and vegetables to improve diets, but people on low incomes are least able to afford these in large quantities. The availability of good quality and reasonably priced food can improve nutrition, particularly for families, the elderly and those on low or fixed incomes.

### BENEFITS TO TOTAL WELL-BEING

- The local production of food will help buffer our community from the future high costs of food, helping to make quality food and good nutrition more affordable.
- Local production reduces the environmental footprint of the food (e.g. food miles), which in turn reduces air pollution and helps to support physically active local employment.
- Community and home gardening on integrated land-use plots can increase community cohesion and provides a cheap and fresh supply of produce; often without the need for pesticides, resulting in a more self-sufficient and healthy community.

### THE CURRENT SITUATION

- Only two supermarket companies (Food Stuffs and Progressive) operate in the city. These companies buy in bulk and demand low prices from growers that can guarantee supply. Consequently, they seldom buy from small local suppliers.
- Forty Fruiterers and Greengrocers are scattered throughout the city, typically in suburban shopping centres. Produce is generally sourced from the local Turners & Growers produce market in Wigram.
- There are two farmers' markets that operate on weekends, one in Lyttleton (that only sells locally sourced produce) and one in the central city. A number of produce stalls can be found at other weekend markets held around the city including the Riccarton, QEII Park and Cranford Street markets.
  - Some growers, particularly in the Marshlands and Selwyn area, sell produce directly to the public. However, most of these require car transport to access.
  - Christchurch has established thirteen community gardens throughout the city with the support of the Christchurch City Council. These gardens allow volunteers to take home produce and often sell or give away produce through roadside stalls.
  - Some schools and early child care centres grow fruit and vegetables as part of their educational programme as home gardens are declining. This activity is supported by the Enviro-Schools and Kids Edible Gardens programmes.
  - Food banks usage continues to increase in Christchurch. It is estimated that 12,000 Christchurch children receive assistance from the city's 19 official food banks each year, although up to 51 Christchurch social community agencies also assist with food needs.

### CCC LTCCP Community Outcome

- A Healthy City.
- A City of People who Value and Protect the Natural Environment
- A City of Lifelong Learning



## KEY QUESTION

Do planning policies encourage and promote local food production and distribution, and encourage a balanced diet with quality food at an affordable price?

### THINKING ABOUT THE ISSUES

- Protecting productive land within and surrounding the city from development.
- The retention of economically viable parcels of land.
- Recognition that the organic Marshland soils are unique in Canterbury and are of particular importance for market gardening.
- Recognition that north facing slopes (e.g. Heathcote and Horotane Valleys) are critical for winter and early-season production.
- Allowance for city farms, allotments and community gardens.
- The productive use of the city's green spaces, parks and gardens.
- Encouraging farmers' markets and roadside stalls.
- Decreasing our reliance on supermarket monopolies.
- Growing the demand for local and organic produce.
- Equipping residents with the ability to garden at home.

## POSITIVE EFFECTS OF GOOD PLANNING FOR FOOD SECURITY

- By planning for local food production spaces such as city gardens, market gardens and city farms, people can grow and sell their own fruit and vegetables.
- Additionally, planning for diverse local shopping centres with fruit and vegetable stalls and the provision of areas for farmer's markets enables people to purchase affordable local produce.
- Protecting set plots for local food production can limit the impact that competing market crops, such as those for bio fuel production, can have on land use.



## POTENTIAL NEGATIVE EFFECTS OF AD-HOC PLANNING

- Planning can overlook the importance of accessible open spaces and providing local allotment gardens.
- Shopping centralisation around large supermarket retail chains reduces the availability of locally produced food and further disadvantages those without access to a car.

Our children's health and well-being  
are dependent on our commitment  
to promoting food access  
and good eating habits at home,  
at school and in the community.  
– Rod Blagojevich (US politician)

## How can planners help to encourage quality food access?

- Protect from development the productive land surrounding, and within, the city.
- Allocate designated plots for community gardens, allotments or city farms in high deprivation areas.
- Provide facilities in local communities for stalls and farmers markets to establish.
- Provide easy access to local markets with adequate public transport and safe pathways.



## RELEVANT CHRISTCHURCH CITY PLAN OBJECTIVES

- City Plan 2.1 – Land and Soil
- City Plan 9.3 – Community and Cultural Development
- City Plan 10.3 – Amenity Values
- City Plan 10.4 – Anticipated Land Uses
- City Plan 11.1 – Diverse Living Environments
- City Plan 11.3 – Non-residential Activities
- City Plan 11.4 – Adverse Environmental Effects (Living)
- City Plan 11.6 – Neighbourhood Improvement
- City Plan 12.7 – Role of Suburban Centres
- City Plan 12.8 – Amenity, Design and Effects of Suburban Centres
- City Plan 13.1 – The Rural Land and Soil Resource
- City Plan 13.4 – Rural Amenity Values
- City Plan 14.1 – Recreation and Open Spaces Provision and Diversity
- City Plan 14.2 – Recreation and Open Spaces Efficient and Effective Use





# APPENDIX

HPSTED Matrix  
HPSTED Legislation  
Glossary  
References  
Useful Websites

# Christchurch City Council Healthy & Sustainable Communities Matrix

For each plan/strategy/policy, this matrix can be used to determine the impact each theme covered in this resource has on each aspect of well-being. Use this grid to list the potential impacts on well-being the particular plan, strategy or policy could have in each theme.

		Potential impacts on the four well-beings								Comments or Assumptions	
		Environmental		Social		Economic		Cultural			
		positive	negative	positive	negative	positive	negative	positive	negative		
<b>Active Lifestyles</b>											
<b>Transport accessibility</b>											
<b>Equity</b>											
<b>Social &amp; Community Capital</b>											
<b>Neighbourhood Amenities</b>											
<b>Cultural diversity</b>											

	Impacts on the four well-beings								Comments or Assumptions	
	Environmental		Social		Economic		Cultural			
	positive	negative	positive	negative	positive	negative	positive	negative		
<b>Public Services</b>										
<b>Housing Stock</b>										
<b>Economic Development</b>										
<b>Community Safety</b>										
<b>Natural Capital</b>										
<b>Resource Minimisation</b>										
<b>Food Security</b>										



# HPSTED Relevant Legislation, Policies, Plans and Strategies

EVALUATION CRITERIA	NATIONAL LEGISLATION & POLICY	REGIONAL POLICY	CHRISTCHURCH PLANS, POLICIES & STRATEGIES
<p><b>Active Lifestyles</b></p>	<p>Local Government Act 2002 (Sections 10, 11, 138, 139, 189)                      National Parks Act 1980                      Reserves Act 1977                      New Zealand Transport Strategy</p>	<p>ECan Long Term Council Community Plan                      Greater Christchurch Urban Development Strategy                      Canterbury West Coast Regional Physical Activity Plan                      Canterbury Regional Land Transport Strategy                      ECan Travel Demand Strategy</p>	<p>CCC Long Term Council Community Plan                      City Plan Volume 2; Sections 7, 9, 14                      Physical Recreation and Sport Strategy                      Cycling Strategy                      Pedestrian Strategy                      Open Space Strategy                      Parks and Waterways Access Policy                      Active Living Strategy (Draft)                      Avon/Heathcote Estuary Mgmt Plan                      Port Hills Recreation Strategy                      Festival and Events Policy                      Local Parks Acquisition Policy</p>
<p><b>Transport Accessibility</b></p>	<p>Land Transport Act 1998 (Sections 170 – 183)                      Land Transport Management Act 2003 (Sections 12 – 22)                      Transport Services Licensing Act 1989                      New Zealand Transport Strategy                      Local Government Act 2002 (Sections 10, 11)                      Building Act 2004 (Sections 117-120)</p>	<p>ECan Long Term Council Community Plan                      ECan Travel Demand Strategy                      Canterbury Regional Land Transport Strategy                      Christchurch Public Passenger Transport Strategy                      Metro Strategy                      Canterbury Regional Passenger Transport Plan                      Greater Christchurch Urban Development Strategy</p>	<p>CCC Long Term Council Community Plan                      City Plan Volume 2; Section 7                      Road Safety Strategy                      Cycling Strategy                      Pedestrian Strategy                      Parking Strategy                      Central City Transport Concept Plan</p>

<p><b>Community Safety</b></p>	<p>Local Government Act 2002 (Sections 10, 11, 169, 172, 175, 183) Civil Defence Emergency Management Act 2002 Criminal Justice Act 1985 Crimes Act 1961</p>		<p>CCC Long Term Council Community Plan City Plan Volume 2; Sections 6, 7, 9, 10 Safer Christchurch Strategy</p>
<p><b>Equity</b></p>	<p>Local Government Act 2002 (Sections 10, 11, 77, 78, 80, 81, 82 ) Building Act 2004 (Section 117-120) Youth Development Strategy (MSD) Older People's Policy (MSD)</p>	<p>Greater Christchurch Urban Development Strategy</p>	<p>CCC Long Term Council Community Plan City Plan Volume 2; Sections 4 – 7, 9, 11, 12, 14 Strengthening Communities Strategy Social Wellbeing Policy Social Justice, Community Development and Social Issues Policy Statement Equity and Access for People with Disabilities Policy Ageing Together Policy Children's Strategy Youth Policy and Strategy</p>
<p><b>Social &amp; Community Capital</b></p>	<p>Local Government Act 2002 Sections 10, 11, 52, 77, 78, 80, 81, 82, 93) Youth Development Strategy (MSD) Older People's Policy (MSD)</p>	<p>Greater Christchurch Urban Development Strategy Leading Social Development in Canterbury Regional Plan (MSD)</p>	<p>CCC Long Term Council Community Plan City Plan Volume 2; Sections 4, 5, 9, 11, 12, 14 Strengthening Communities Strategy Seeking Community Views Policy Statement Consultation Policy</p>

<p style="text-align: center;"><b>Cultural Diversity</b></p>	<p>Treaty of Waitangi (parts 2 &amp; 6) Local Government Act 2002 (Sections 4, 14, 40, 77, 81, 82) Resource Management Act 1991 (Sections 8 &amp; 35A) Ngai Tahu Claims Settlement Act 1998</p>	<p>Canterbury Regional Policy Statement Natural Resources Regional Plan</p>	<p>CCC Long Term Council Community Plan City Plan Volume 2; Section 5</p>
<p style="text-align: center;"><b>Economic Development and Work</b></p>	<p>NZ Trade &amp; Enterprise Act 2003 Economic Transformation Agenda Local Government Act 2002 (Sections 10, 11, 91 – 97)</p>	<p>Canterbury Regional Economic Development Strategy Regional Labour Market Strategy Canterbury Development Corporation's Strategic Plan</p>	<p>CCC Long Term Council Community Plan City Plan Volume 2; Sections 6, 7, 12 Prosperous Christchurch Economic Development Strategy Central City Revitalisation Strategy</p>
<p style="text-align: center;"><b>Neighbourhood Amenity</b></p>	<p>Resource Management Act 1991 (Sections 9-13, 31) Local Government Act 2002 (Sections 10, 11, 138, 139, 189)</p>	<p>Greater Christchurch Urban Development Strategy</p>	<p>CCC Long Term Council Community Plan City Plan Volume 2; Sections 4, 11 - 14 Heritage Conservation Policy</p>
<p style="text-align: center;"><b>Public Services</b></p>	<p>Local Government Act 2002 (Sections 10, 11, 138, 142)</p>	<p>Canterbury District Health Board's District Plan</p>	<p>CCC Long Term Council Community Plan City Plan Volume 2; Sections 6 – 9, 11, 12, 14</p>



<p style="text-align: center;"><b>Housing Stock</b></p>	<p>Building Act 2004 (Sections 17, 40, 75)  Local Government Act 2002 (Sections 10, 11)  Energy Efficiency &amp; Conservation Act 2000  Resource Management Act 1991 (Sections 9-11, 31)  National Energy Efficiency &amp; Conservation Strategy  Housing Restructuring &amp; Tenancy Matters Act 1992  Housing Act 1955  New Zealand Housing Strategy  Urban Design Protocol</p>	<p>Greater Christchurch Urban Development Strategy  Clean Heat Project</p>	<p>CCC Long Term Council Community Plan  City Plan Volume 2; Sections 6, 9 – 11  Urban Renewal Policy  Council Housing Policy  Social Housing Strategy</p>
<p style="text-align: center;"><b>Natural Capital</b></p>	<p>Resource Management Act 1991 (Sections 9-15, 17, 30, 31)  Energy Efficiency &amp; Conservation Act 2000  National Energy Efficiency &amp; Conservation Strategy  Local Government Act 2002 (Sections 10, 11, 130, 192 – 196)  Soil Conservation Act and Rivers Control Act 1941</p>	<p>ECan Long Term Council Community Plan  ECan Compliance, Monitoring and Enforcement Policy  Natural Resources Regional Plan</p>	<p>CCC Long Term Council Community Plan  City Plan Volume 2; Sections 2, 8, 11, 13, 14  Biodiversity Strategy  Surface and Wastewater Strategies  Sustainable Energy Strategy</p>

<p><b>Resource Efficiency</b></p>	<p>Resource Management Act 1991 (Sections 9-15, 17, 30, 31) National Energy Efficiency &amp; Conservation Strategy Energy Efficiency &amp; Conservation Act 2000 Local Government Act 2002 (Sections 10, 11, 130, 192 – 196) Info comm Resilience</p>	<p>ECan Compliance, Monitoring and Enforcement Policy Regional Energy Strategy Canterbury Hazardous Waste Management Strategy</p>	<p>CCC Long Term Council Community Plan City Plan Volume 2; Sections 2, 3, 8, 11, 12, 14 Sustainable Energy Strategy Waste Management Plan (towards Zero Waste) Waste Free Parks Strategy</p>
<p><b>Community Resilience</b></p>	<p>Local Government Act 2002 (Sections 10, 11, 173.) Resource Management Act 1991 (Section 18) Building Act 2004 (Sections 71, 128, 131) National Energy Efficiency &amp; Conservation Strategy Energy Efficiency &amp; Conservation Act 2000</p>	<p>ECan Compliance, Monitoring and Enforcement Policy Earthquake Hazard and Risk Assessment Strategy Canterbury Regional Policy Statement</p>	<p>CCC Long Term Council Community Plan City Plan Volume 2; Sections 2,3, 8, 10, 11, 14</p>
<p><b>Food Security</b></p>	<p>Resource Management Act 1991 (Sections 9, 10, 17) Local Government Act 2002 (Sections 10, 11) Biosecurity Act 1993</p>	<p>ECan Long Term Council Community Plan ECan Compliance, Monitoring and Enforcement Policy Natural Resources Regional Plan</p>	<p>CCC Long Term Council Community Plan City Plan Volume 2; Sections 2, 9-14 Community Gardens Policy</p>

# GLOSSARY

<b>Amenity</b>	The liveability or quality of a place which makes it pleasant and agreeable to be in for individuals and the community. Amenity is important in both the public and private domain and includes the enjoyment of sunlight, privacy and quiet.
<b>City Plan</b>	This is a document prepared under the Resource Management Act 1991 that provides a framework for the management of land use and subdivision within the City. It defines areas of urban growth and details such as building heights.
<b>Climate change</b>	The climate of a place or region is changed if over an extended period (usually decades) there is a statistically significant change in measurements of climate for that region. In the United Nations definition, it is change that is due either directly or indirectly to human activity.
<b>Community capacity building</b>	Developing sustainable skills, organisational structures, resources and commitment to health improvement in health and other sectors to prolong and multiply health gains many times over. Capacity building occurs within programmes and within systems; it leads to greater capacity of people, organisations and communities to promote health.
<b>Community consultation</b>	Communication between persons/groups within the community. May have a range of purposes including the collection or dissemination of information, or identification or resolution of issues. There must be a willingness to listen and change, adequate information and sufficient time.
<b>Community outcomes</b>	The things the community thinks are important for its current or future social, economic, environmental or cultural well-being.
<b>Compact City</b>	The compact city approach to urban growth limits urban growth to a clearly defined area using techniques like Urban Limits. Population growth must be accommodated by growing more intensively within the urban limits. Also known as “smart-growth” or “transit-oriented development”.
<b>Connectivity</b>	Maximising connections with surrounding streets and activities. Also refers to streets being connected (i.e. a grid pattern) to increase the choice of routes available.
<b>CPTED</b>	Crime Prevention Through Environmental Design – an approach to crime prevention based on the premise that the built environment influences human behaviour.
<b>Environmental health</b>	The aspects of human health and disease that are determined by factors in the environment. It is also the theory and practice of assessing and controlling factors in the environment that can potentially affect health.



<b>Environmental Impact Assessment</b>	This is a tool used to identify and assess the significant environmental impacts of a development proposal, and if necessary, suggest alternatives or mitigation to avoid the negative impacts.
<b>Equity</b>	In health, equity implies that ideally everyone should have a fair opportunity to attain their full health potential, and more pragmatically, that no-one should be disadvantaged from achieving this potential if it can be avoided. Inequity refers to differences in health that are unnecessary, avoidable, unfair and unjust. For urban design, this term implies it is the absence of systematic differences in one or more aspects of health across socially, economically, demographically defined population groups or subgroups.
<b>Greater Christchurch Urban Development Strategy (UDS)</b>	The collaborative development between the Local Government Authorities and Transit NZ to address the projected population growth and consequential urban development in the Greater Christchurch region.
<b>Greenhouse gases</b>	A gas such as water vapour, carbon dioxide, methane, chlorofluorocarbons, and hydrochlorofluorocarbons that absorbs and re-emits infrared radiation, warming the Earth's surface and contributing to climate change.
<b>Liveable neighbourhoods</b>	Neighbourhoods that offer a good quality of life for their residents. Liveable neighbourhoods are characterised by safety, decent and affordable housing, high-quality services and shopping, good schools, economic opportunities, and opportunities for healthy living.
<b>Hauora – Te Whare Tapa Wha model</b>	Professor Mason Durie's framework to describe health, or total well-being. Consists of four dimensions: physical (taha tinana), spiritual (taha wairua), social (taha whanau) and mental & emotional (taha hinengaro). All dimensions need to be addressed for enhanced well-being.
<b>Health</b>	Defined by WHO as: 'A state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity'.
<b>Health determinants</b>	A range of factors that can affect an individual's health, including their age, gender and lifestyle; social and community influences; living and working conditions and general socio-economic, cultural, political and environmental conditions.
<b>Health Impact Assessment</b>	This is a method of estimating the potential health effects of the implementation of a plan or development proposal, which may or may not be aimed at influencing the health of the population.
<b>Health inequalities</b>	These are variations in health between different population groups, and are the result of a complex and wide-ranging network of determinants. People who experience material disadvantage, poor housing, lower educational attainment, insecure employment or homelessness are among those more likely to suffer poorer health outcomes and an earlier death compared with the rest of the population.
<b>Health outcomes</b>	A change in the health status of an individual, group or population which is attributable to a planned intervention or series of interventions, regardless of whether such an intervention was intended to change health status.

<b>Health promotion</b>	The process of enabling people to increase control over, and to improve their health. A comprehensive social and political process that embraces actions to strengthen the skills and capabilities of individuals and actions directed towards changing social, environmental and economic conditions to alleviate their impact on public and individual health.
<b>Health services</b>	Services offered by the medical and allied health professions for the prevention, treatment and management of illness and the preservation of mental and physical well-being. Generally divided into primary, secondary and tertiary services.
<b>Healthy urban planning</b>	This is essentially planning for people by focusing on the positive impact urban planning can have on human health, well-being and quality of life.
<b>Infill</b>	The development of additional dwelling(s) on individual residential sites, such as through cross leasing. Usually the original house is retained.
<b>Intensification</b>	Urban intensification is the creation of higher residential densities in urban areas through infill development, redevelopment, and more compact new development.
<b>Local Government Act 2002</b>	Defines the powers and responsibilities of territorial local authorities such as Christchurch City Council to 'promote the social, economic, cultural and environmental well-being of communities'.
<b>Long Term Council Community Plan (LTCCP)</b>	A document prepared every three years under section 93 of the Local Government Act 2002 that describes local government outputs (or services), how they will be funded and how the organisation will help achieve the community outcomes.
<b>Mixed use development</b>	The integration of compatible land uses in one locality, building or block. Usually includes a mixture of activities, such as residential, business, recreational, retail or hospitality.
<b>New Urbanism</b>	An approach to urban planning that advocates integrating housing, workplaces, shopping, and recreation areas into compact, pedestrian-friendly, mixed-use neighbourhoods linked by transit and bikeways. An example in Christchurch is Sydenham Square.
<b>Peak Oil</b>	The term Peak Oil refers to the maximum rate of production of oil in any area under consideration, recognising it is a finite natural resource subject to depletion.
<b>Ped Shed</b>	Pedestrian shed – also known as 'pedestrian catchment' or 'walkable catchment' maps. A map that shows the actual area served within a 400m walking distance along a street system from a public transport stop, town or neighbourhood centre, a school or a park. This area can often be significantly less than the area contained within a 400m radius, particularly when the street system is circuitous or poorly connected.
<b>Public health</b>	The organised effort of society to protect the health and well-being of a whole community.

<b>Redevelopment</b>	The replacement of existing dwellings or buildings with new, typically higher density, dwellings, such as terraces, town houses or apartments. An example would be two houses side by side bought up, removed and replaced with a terrace block.
<b>Resilience</b>	The capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure.
<b>Resource Management Act 1991</b>	The main piece of New Zealand legislation that sets out how the environment should be managed.
<b>Smart Growth</b>	Development that consumes less land by encouraging more compact form in communities. It provide a variety of housing types that are arranged around parks and playgrounds and neighbourhood shopping facilities, accessible by pedestrian walkways and bikeways and serviced by public transportation. This has the effect of reducing the use of automobiles to a minimum.
<b>Social capital</b>	The intangible benefits gained from social interaction and social networks. For example, involvement in a neighbourhood support group pays off when members go on holiday and their homes are watched while they are away.
<b>Social infrastructure</b>	A system of social services, networks and facilities that support people and communities.
<b>Sustainable community</b>	Communities defined as places where people want to live and work, now and in the future.
<b>Sustainable development</b>	A widely used definition drawn up by the World Commission on Environment and Development in 1987 is 'Development that meets the needs of the present without compromising the ability of future generations to meet their own needs'.
<b>Te Pae Mahutonga</b>	Professor Mason Durie's concept of health promotion; comprising four stars of the Southern Cross representing the four health promotion dimensions of healthy lifestyles, environmental protection, secure cultural identity and active participation in society, with two pointers indicating autonomy and effective leadership.
<b>TOD</b>	Transit Oriented Development refers to residential and commercial areas designed to maximise access to passenger transit, with features to encourage public transport use and pedestrians.
<b>Traffic calming</b>	Techniques intended to reduce the negative impacts of motor vehicles on neighbourhoods by reducing vehicle speeds and by providing safe spaces for pedestrians and cyclists.
<b>Urban design</b>	This is about the overall structure and function of a place. The Ministry for the Environment describes urban design as being about making the connections between people and places, between public and private space, between the natural and built environment, between movement and urban form, and between the social and economic purposes for which urban space is used.



<b>Urban regeneration</b>	Making an urban area develop or grow strong again through means such as job creation and physical renewal.
<b>Urban sprawl</b>	Low-density, single-use development spreading out from an urban core in a haphazard manner that results in increased dependency on the automobile and inefficient use of infrastructure.
<b>Walkable community</b>	A community where housing, workplaces, shopping areas, schools and recreation facilities are laid out in a manner that makes them relatively accessible by walking as well as by cycling.
<b>Well-being</b>	This refers to the quality of life and a state of being healthy, happy and prosperous.
<b>Zoning</b>	A set of laws that restrict and define the type of land uses and development that can occur on each parcel of land in a community. Zoning typically divides a community into districts that group compatible uses together and exclude incompatible uses.



# REFERENCES

- Barton, H. and C. Tsourou (2000). *Healthy Urban Planning: A WHO Guide to Planning for People*. London, Spon Press for the World Health Organisation.
- Bolen, E. and Hecht, K. (2003). *Neighbourhood Groceries: new access to healthy food in low-income communities*. California Food Policy Advocates, California.
- Butterworth, I. (2000) *The Relationship between the Built Environment and Well-being: a literature review*. Melbourne, Victoria. Victorian Health Promotion Foundation
- Christchurch City Council (2007). *City Plan*. Christchurch, Christchurch City Council.
- Christchurch City Council (2007). *Community Outcomes Baseline Report*. Christchurch, Christchurch City Council.
- Christchurch City Council (2006). *The Long Term Community Council Plan - Our Community Plan Christchurch O-Tautahi 2006-2016*. Christchurch, Christchurch City Council.
- Christchurch City Council (2006). *Safer Christchurch Strategy*. Christchurch, Christchurch City Council.
- Canterbury District Health Board (2007). *District Annual Plan 2007-2008*. Christchurch, CDHB.
- Canterbury District Health Board (2006). *The Health Impact Assessment: Greater Christchurch Urban Development Strategy Options*. Christchurch, Canterbury District Health Board.
- Durie, M. (1994). *Whaiora: Maori health development*. Auckland, Oxford University Press.
- Durie, M. (1999). Te Pae Mahutonga: a model for Maori health promotion, *Health Promotion Forum of New Zealand Newsletter* 49, 2-5 December 1999.
- Environment Canterbury (2006). *The Long Term Council Community Plan 2006-2016*. Christchurch, Environment Canterbury.
- Frank, L. D., P. O. Engelke, et al. (2003). *Health and Community Design: The Impact of the Built Environment on Physical Activity*. Washington, DC, The Island Press.
- Frumkin, H., L. D. Frank, et al. (2004). *Urban Sprawl and Public Health: Designing, Planning and Building for Healthy Communities*. Washington, DC, The Island Press.
- Hancock, T. (1993). The Healthy City from concept to application: implications for research. In J. K. Davies and M. P. Kelly (Eds.), *Healthy Cities: Research and Practice*. London, Routledge.

- MacPherson (2006). *Food Insecurity and the Food Bank Industry: Political, Individual and Environmental factors contributing to Food Bank use in Christchurch*. Accessed off [www.geohealth.cant.ac.nz](http://www.geohealth.cant.ac.nz).
- Ministry of the Environment (2005). *New Zealand Urban Design Protocol. Sustainable Development Programme of Action*. Wellington, Ministry for the Environment.
- Ministry of the Environment (2001). *New Zealand Energy Efficiency & Conservation Strategy*. Wellington, Ministry for the Environment: 36.
- Ministry of the Environment (2005). *New Zealand Urban Design Protocol. Sustainable Development Programme of Action*. Wellington, Ministry for the Environment: 36.
- Ministry of the Environment (2005). *The value of urban design*. Wellington, Ministry for the Environment: 606.
- Ministry of the Environment (2007). *Getting Auckland on Track: Public Transport and New Zealand's Economic Transformation – Working Paper*. Wellington, Ministry for the Environment.
- Ministry of Health (2003). *Physical Activity DHB Toolkit*. Wellington, Ministry of Health.
- Ministry of Refugee Immigration and Integration Affairs (2003). *Cultural diversity in European cities*. Accessed off the World Wide Web at [http://www.nyidanmark.dk/bibliotek/publikationer/rapporter/uk/cultural\\_diversity/](http://www.nyidanmark.dk/bibliotek/publikationer/rapporter/uk/cultural_diversity/)
- Ministry of Social Development (2007). *The Social Report 2007*. Wellington, Ministry of Social Development:
- National Health Service Healthy Urban Development Unit (2005). *Watch Out For Health* web based resource. Accessed off the World Wide Web from: [http://www.healthyurbandevelopment.nhs.uk/documents/checklist\\_for\\_health/Watch\\_Out\\_For\\_Health\\_Planning\\_Checklist.pdf](http://www.healthyurbandevelopment.nhs.uk/documents/checklist_for_health/Watch_Out_For_Health_Planning_Checklist.pdf)
- National Health Service Healthy Urban Development Unit (2006). *Health and Urban Planning Toolkit* web based resource. Accessed off the World Wide Web from: <http://www.healthyurbandevelopment.nhs.uk>
- National Heart Foundation (2004). *Healthy by Design: a planners' guide to environments for active living*. Victoria, National Heart Foundation of Australia: 36.
- Office of Federal Coordinator of Meteorology (2004). *Challenges in urban meteorology*. Accessed off the World Wide Web on <http://www.ofcm.gov/homepage/>
- Public Health Advisory Committee (2005). *A Guide to Health Impact Assessment: A policy tool for New Zealand*. Wellington, Ministry of Health, Wickliffe Press.
- Schofield, G. (2005). *Activity Friendly Environments - a resource from SPARC*. Auckland, SPARC: 77.
- Statistics New Zealand (2007). *2006 Census Data*. Accessed off the World Wide Web from <http://www.stats.govt.nz/census/census-outputs/default.htm>.
- Urban Development Strategy Forum (2007) *The Greater Christchurch Urban Development Strategy*.
- Wilkinson, R. and M. Marmot (2003). *Social Determinants of Health: The Solid Facts (2nd Edition)*. Copenhagen, World Health Organisation.
- World Cancer Research Fund / American Institute for Cancer Research (2007). *Food, Nutrition, Physical Activity and the Prevention of Cancer: a Global Perspective*. Washington DC: AICR.





# USEFUL LINKS

Throughout this resource, certain facts or figures have been quoted from various documents, strategies or policies, some of which may be found on the websites listed below for further reference:

## **THE GREATER CHRISTCHURCH URBAN DEVELOPMENT STRATEGY**

<http://www.greaterchristchurch.org.nz>

## **THE TREATY OF WAITANGI**

<http://www.waitangi-tribunal.govt.nz/treaty>

## **SUSTAINABLE CHRISTCHURCH**

<http://www.ccc.govt.nz/SustainableChristchurch>

## **HEALTHY CHRISTCHURCH**

<http://www.healthy.christchurch.org.nz>

## **NZ SUSTAINABLE DEVELOPMENT**

<http://www.mfe.govt.nz/issues/sustainability/programme.html>

## **NZ URBAN DESIGN**

<http://www.mfe.govt.nz/publications/urban/value-urban-design-full-report-jun05/html/page4.html>

## **ENVIRONMENT CANTERBURY (ECAN)**

<http://www.ecan.govt.nz>

## **CHRISTCHURCH CITY COUNCIL COMMUNITY OUTCOMES MONITORING**

<http://www.ccc.govt.nz/LTCCP/CommunityOutcomes/BaselineReport/>

## **CHRISTCHURCH 2006 CENSUS STATISTICS**

<http://www.ccc.govt.nz/Census/>

## **CULTURAL WELL-BEING**

<http://www.mch.govt.nz/cwb/>

## **ECONOMIC WELL-BEING**

<http://www.med.govt.nz>

## **SOCIAL WELL-BEING**

<http://www.socialreport.msd.govt.nz>

## **UK HEALTHY CITIES AND URBAN POLICY**

<http://www.built-environment.uwe.ac.uk/research/who/>

## **UK IMPROVEMENT AND DEVELOPMENT AGENCY**

<http://www.idea.gov.uk/idk/core/page.do?pagelD=1>

## **UK HEALTHY URBAN DEVELOPMENT UNIT**

<http://www.healthyurbandevelopmentunit.uhs.uk>

## **UK GOVERNMENT ADVISOR ON ARCHITECTURE, URBAN DESIGN AND PUBLIC SPACE**

<http://www.cabe.org.uk>

## **HEALTH PROMOTION AND PLANNING**

<http://www.vichealth.vic.gov.au/content.aspx?topID=248>