



Resilient Willoughby Strategy and Action Plan

October 2021



WILLOUGHBY
CITY COUNCIL

Acknowledgment of Country

We acknowledge the traditional inhabitants of the land on which we stand, the Aboriginal People, their spirits and ancestors.

We acknowledge the vital contribution that indigenous people and cultures have made and still make to the nation that we share, Australia.

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Front Cover Image (middle, bottom row): *The Tenacious Realm*: Willoughby Visual Arts Biennial, Willoughby City Council 2019 – *Tamara Whyte, Bulman Hybrid* (detail), 2018, video still





Mayor's message



Our Willoughby community has shown resilience in recent years, having experienced COVID-19, storms, smoke pollution from bushfires and concerns around the impacts of climate change. We have developed this *Resilient Willoughby Strategy and Action Plan* (the Plan) to support and build our community's resilience into the future.

The Plan outlines Council's approach to resilience challenges and is informed by the broader work of the Resilient Sydney group of Councils and our local Community Perception and Resilience Survey undertaken in November 2020. Community concerns include longer term, underlying stresses such as climate change, housing affordability, traffic congestion, work/life balance, employment opportunities and job security. The Survey also considered the impact on the community of shocks such as bushfires, drought, floods and storms.

Other resilience priorities for Council and the community are outlined in Council's Community Strategic Plan. They include building stronger community connections, caring for vulnerable community members, protecting our environment and green spaces and supporting our local centres through the impacts of COVID-19.

Local government is uniquely placed to help build community resilience, which can lessen the impact of shocks and stresses on people and the environment and minimise social, environmental and economic costs. This is especially important for vulnerable people in our community, who may find it harder to bounce back.

The high-priority actions in this Plan recommend ways to enhance the resilience of our people, buildings, places and governance. We currently engage in activities that develop resilience, including volunteering and caring for our elderly through community services. We also develop planning controls to ensure new buildings are sustainable and better adapted to withstand the impacts of climate change.

Our important new initiatives outlined in this Plan include outreach services supporting vulnerable youth, implementing the Cooler Homes pilot program and establishing multi-purpose greenways to encourage walking and cycling and provide better connections to parks, open spaces, bushland and foreshores.

We are committed to supporting our community through challenging circumstances. The *Resilient Willoughby Strategy and Action Plan* represents the next step on the journey to a more resilient future for Willoughby.

Gail Giles-Gidney

Mayor, Willoughby City Council

1. Introduction



Willoughby City Council (Council) prepared the *Resilient Willoughby Strategy and Action Plan* (the Plan) to outline how Council and its partners can support the community to withstand the challenges of the 21st century.

The Plan identifies the range of shocks and stresses most likely to impact the people of Willoughby, and proposes a range of actions to help the community overcome them. Some of the shocks and stresses are with us now, like the impact of bushfires or expensive housing, whilst some have yet to occur.

"[City resilience is] the capacity of individuals, communities, businesses and systems within a city to survive, adapt and thrive no matter what kinds of acute shocks and chronic stresses they experience."

City of Sydney, Resilient Sydney: A strategy for city resilience 2018¹

The Plan outlines the many actions already being undertaken by Council to strengthen community resilience and proposes a suite of exciting, new actions to address gaps and emerging threats. The Plan will be a valuable document to guide future planning and investment decisions.

Resilience planning is a relatively new field of expertise. This Plan is Council's first resilience plan, prepared in consultation with Resilient Sydney, the peak resilience organisation established in 2015 to help coordinate resilience planning and action across Metropolitan Sydney. Hosted by the City of Sydney, Resilient Sydney was established with funding provided by the global 100 Resilient Cities (100RC) organisation initiated by the US-based Rockefeller Foundation.

The Plan uses the risk-based approach developed by 100RC and applied in member cities across the world, including London, Toronto, Cape Town, Luxor, Sydney and Melbourne.

Throughout the Plan, there is an emphasis on evidence-based thinking, integration, collaboration, a sense of place, and the need to build a culture of self-reliance in the broader community.

1. Introduction

1.1 Shocks and stresses

Although Willoughby is among the most liveable and affluent local government areas (LGAs) in Sydney, the community is affected to varying degrees by acute shocks and chronic stresses. Figure 1 outlines key shocks identified by Resilient Sydney which have informed the risk analysis and development of actions in the Plan.

Acute shocks are sudden, relatively short-term events that threaten a city. Recent shocks in the Willoughby community include unprecedented smoke pollution from the 2019–20 Black Summer bushfires, the COVID-19 pandemic and the economic recession that followed.

"Australia needs to be better prepared for natural disasters. Extreme weather has already become more frequent and intense because of climate change (and) further global warming over the next 20 to 30 years is inevitable."

Australian Royal Commission into National Natural Disaster Arrangements, Final Report, October 2020²

Figure 1: Sydney's major acute shocks



Source: Resilient Sydney – A strategy for city resilience 2018

Chronic stresses weaken a city's fabric over time and make it harder for the community to overcome acute shocks when they happen, particularly if people are already vulnerable. Ongoing stresses affecting the Willoughby community include climate change, expensive housing, traffic congestion, poor work/life balance and social isolation.

Figure 2 outlines chronic stresses identified by Resilient Sydney.

Everyone can be affected by universal shocks such as COVID-19 or the intense heatwaves experienced in Sydney during December 2019. Other shocks, such as bushfires or floods, primarily affect people living in a particular location. Some stresses, such as chronic health problems or social isolation, affect a minority of the population who are particularly vulnerable.

Community impacts from shocks and stresses include death and disability, damage to property and social infrastructure, and mental and physical health problems. Some shocks and stresses also impact significantly on the natural environment and its capacity to nurture ecosystems and support life over time.

High levels of community resilience can lessen the impact of acute shocks and chronic stresses on people and the environment and can help minimise the social, economic and environmental cost in the short and long terms.

Figure 2: Sydney's major chronic stresses



Source: *Resilient Sydney – A strategy for city resilience 2018*

1. Introduction

1.2 Shaping the Plan

We used a staged approach to develop the Plan, which included research, consultation and comprehensive risk analysis. These stages informed the development of a strategic framework with desired outcomes and a series of new, prioritised actions to compliment our existing resilience-building activities. The resilience planning stages are set out in Figure 11 on page 30.

Some of the new actions require minimal resourcing and are achievable in the short term. Others are more ambitious and require extensive planning, lead-in times, third-party collaboration and comprehensive resourcing.

Taking action to manage the impact of shocks and stresses and to build resilience across the Willoughby community will pay dividends now and in the future, as illustrated in Table 1.

Willoughby City Council, in collaboration with Resilient Sydney and its other resilience partners, will continue to monitor and evaluate the benefits of investing in resilience-building activities.

Table 1: Short- and long-term benefits of resilience-building activities

	Benefits
Short-term	<ul style="list-style-type: none">• A reduction in immediate damage to people, property and the environment• Support for the vulnerable• Maintenance of community wellbeing
Long-term	<ul style="list-style-type: none">• A reduction in the social, economic and environmental impacts of shocks and stresses• Empowered communities and governments• Long-term ecological health• Intergenerational equity• A growing sense of connection, hope and self-reliance to enable our communities to survive and thrive in the 21st century.





2. Willoughby profile

This section summarises the key characteristics of the Willoughby local government area – the place and its people – which form the context for the strategic outcomes and individual actions proposed in the Plan.

Cultural diversity is a distinctive part of Willoughby City's character. Nearly half our residents were born overseas and 40% of households don't typically speak English at home. Our population is expected to grow 12% by 2036 and life expectancy will most likely increase, resulting in a growing proportion of residents over 60 years old. 41% of the Willoughby local government area is covered by vegetation and 44% of the resident workforce drives a car to work each day.

2.1 Our people

Ageing population



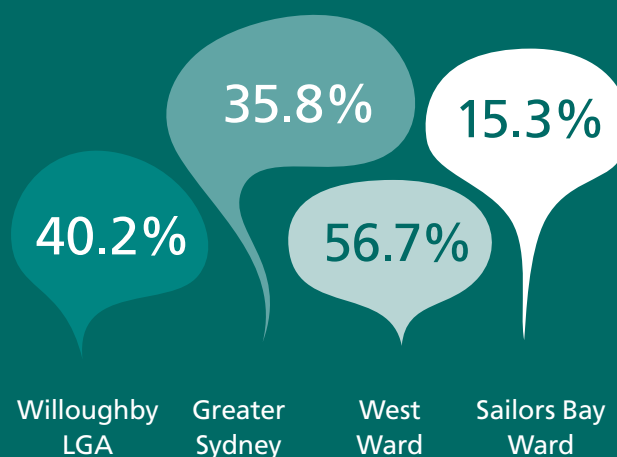
Source: Willoughby City Council, Micromex Research, 2020

Cultural diversity (2016)

Born overseas

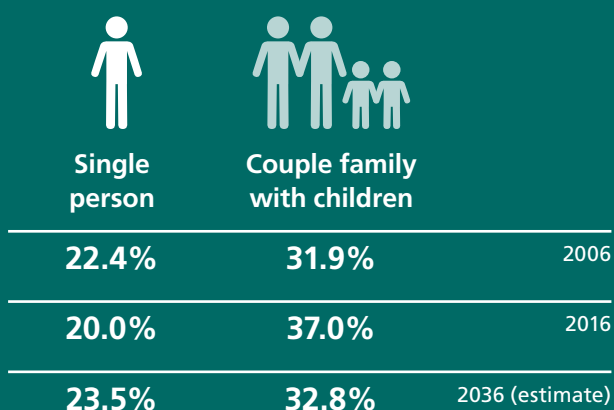


Don't typically speak English at home



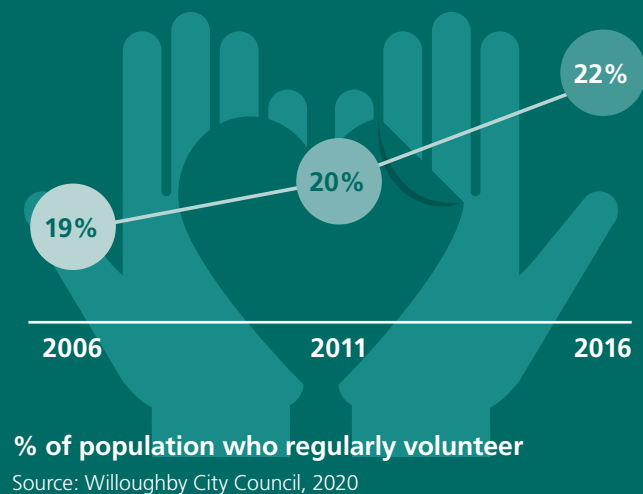
Source: profile.id, 2021

Household type

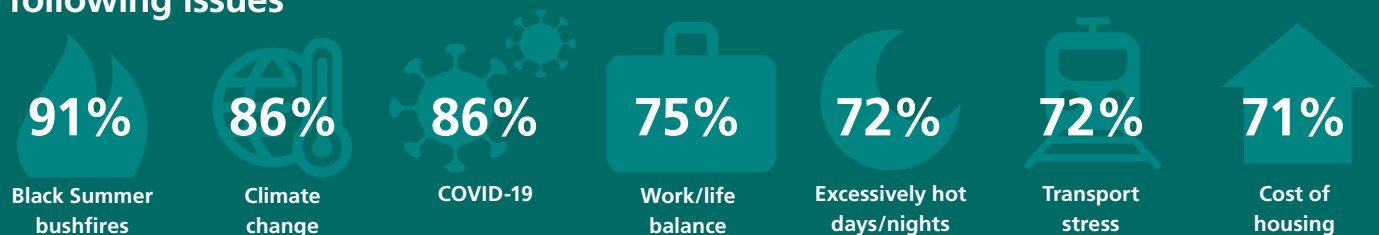


Source: profile.id, 2021

Volunteering

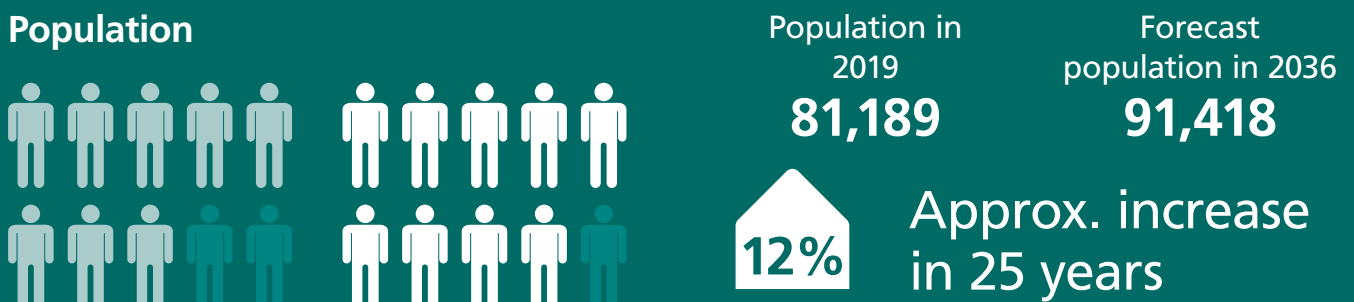


Percentage of population concerned or very concerned about the following issues



Source: Willoughby City Council, Micromex Research, 2020

Population



Source: profile.id, 2021

2. Willoughby profile

2.2 Our place

Chatswood is the **sixth largest office market** in metropolitan Sydney, with



a gross annual regional product of **\$11.5 billion**

Source: Willoughby City Council, 2020



In 2020, there were **13,210 businesses** in Willoughby local government area, mostly located in **Chatswood, St Leonards and Artarmon**

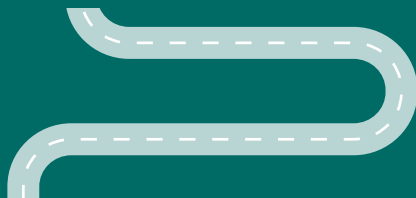
profile.id, 2020

In the past five years in the Willoughby LGA,

9.6 kilometres of bike paths

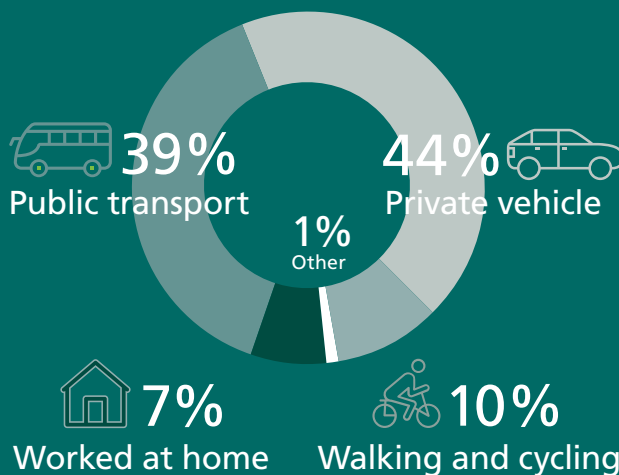
have been completed or are under construction, and a further

13.3 kilometres are being designed



Source: Willoughby City Council, 2020

How Willoughby residents travelled to work in 2019



Uptake of photovoltaic (PV) panels in Willoughby LGA – 2013 to 2019

All Sectors – Solar Capacity



Source: Resilient Sydney data platform, by Kinesis

Figure 3: Map showing major land uses in Willoughby LGA



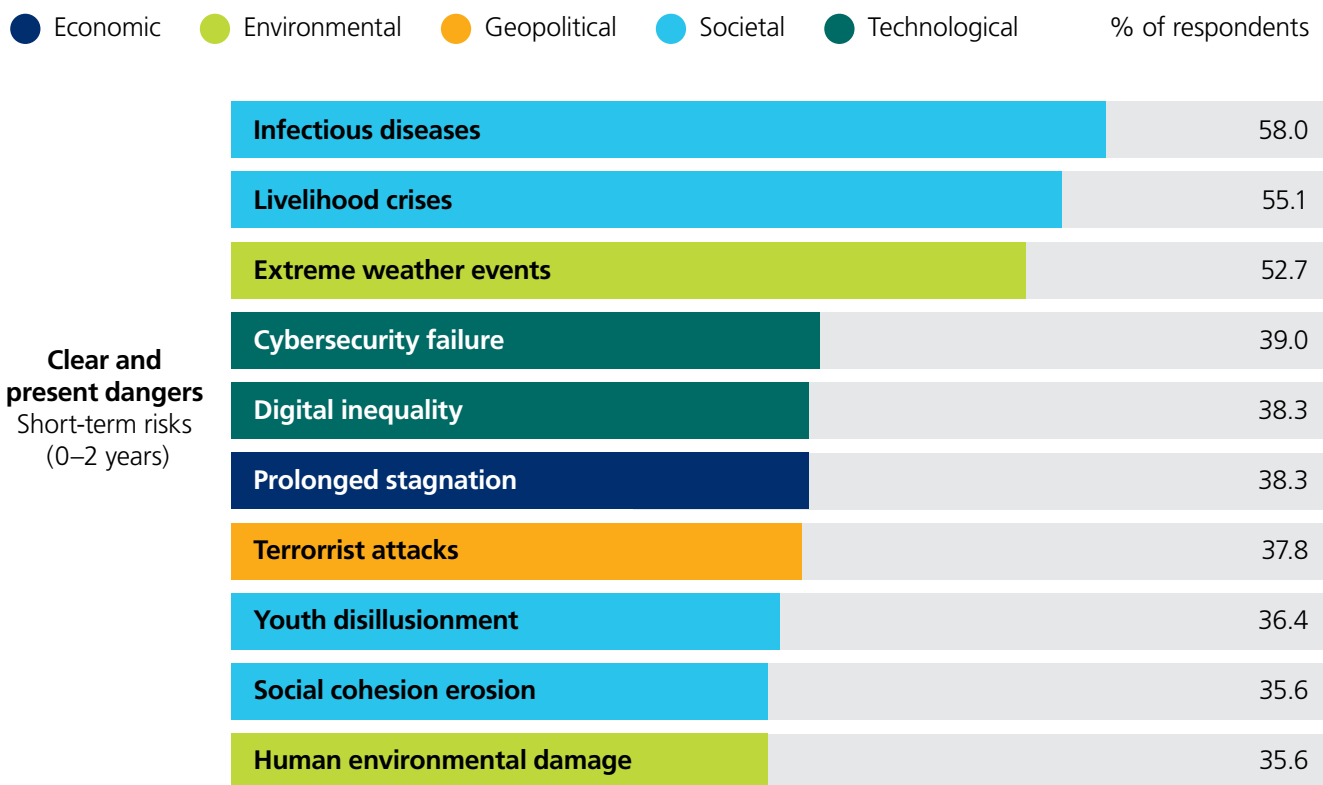
3. The resilience challenge

3.1 Global and national

The 21st century is marked by a range of socio-political, environmental and economic challenges such as increasing climate change, globalisation, urbanisation and declining trust in governments and institutions. These challenges are taking their toll on people in both developing and developed parts of the world.

Each year the World Economic Forum publishes a *Global Risks Report* outlining key risks confronting the global community in the short to long terms. Figure 4 summarises 'clear and present dangers' from the 2021 *Global Risks Report*. The dangers represent high-risk challenges that will impact on the global population in the next two years.

Figure 4: Global risks horizon



Source: World Economic Forum, *Global Risks Report*, January 2021³

Australians experienced a particularly disruptive year in 2019–2020, with a series of unprecedented shocks. These included record-breaking drought and heat, the Black Summer bushfires and the COVID-19 pandemic, the latter of which plunged the global economy into a significant recession.

Numerous institutional, government and academic reports and studies predict that these ‘unprecedented’ shocks are most likely to be repeated, some with increasing regularity.

“Climate change is happening today, so we have to build a more resilient tomorrow. The world has just concluded the hottest decade on record during which the title for the hottest year was beaten eight times. People, planet and prosperity are vulnerable to climate change. We need to prevent the un-adaptable and adapt to the un-preventable.”

European Commission, Forging a Climate-Resilient Europe – the new EU Strategy on Adaptation to Climate Change, 2021⁴

In addition to pandemic and climate change shocks, a number of stresses are undermining community wellbeing and established ways of living in many parts of the world.

Across Australia, the stresses include increasing environmental degradation and species extinction; unaffordable housing; employment insecurity; increased social isolation; mental and physical health challenges; and the threat of economic recession.

“Social isolation, along with disruptions to our sense of connection ... can greatly impact on our mental health and can lead to an increase in loneliness, anxiety and depression. Red Cross already makes more than a million wellbeing phone calls a year to people who are elderly and living alone.”

CEO Australian Red Cross, 29 April 2020 <https://www.redcross.org.au/news-and-media/media-centre/media-releases/covid-connect-launch⁵>

Figure 5: Bushfire smoke over Sydney, December 2019



Source: Shutterstock

“Scientists are observing changes in the Earth’s climate in every region and across the whole climate system. Many changes are unprecedented and some of the changes, such as sea level rise, are irreversible over hundreds to thousands of years. However strong and sustained reductions in emissions of carbon dioxide and other greenhouse gases would limit climate change”

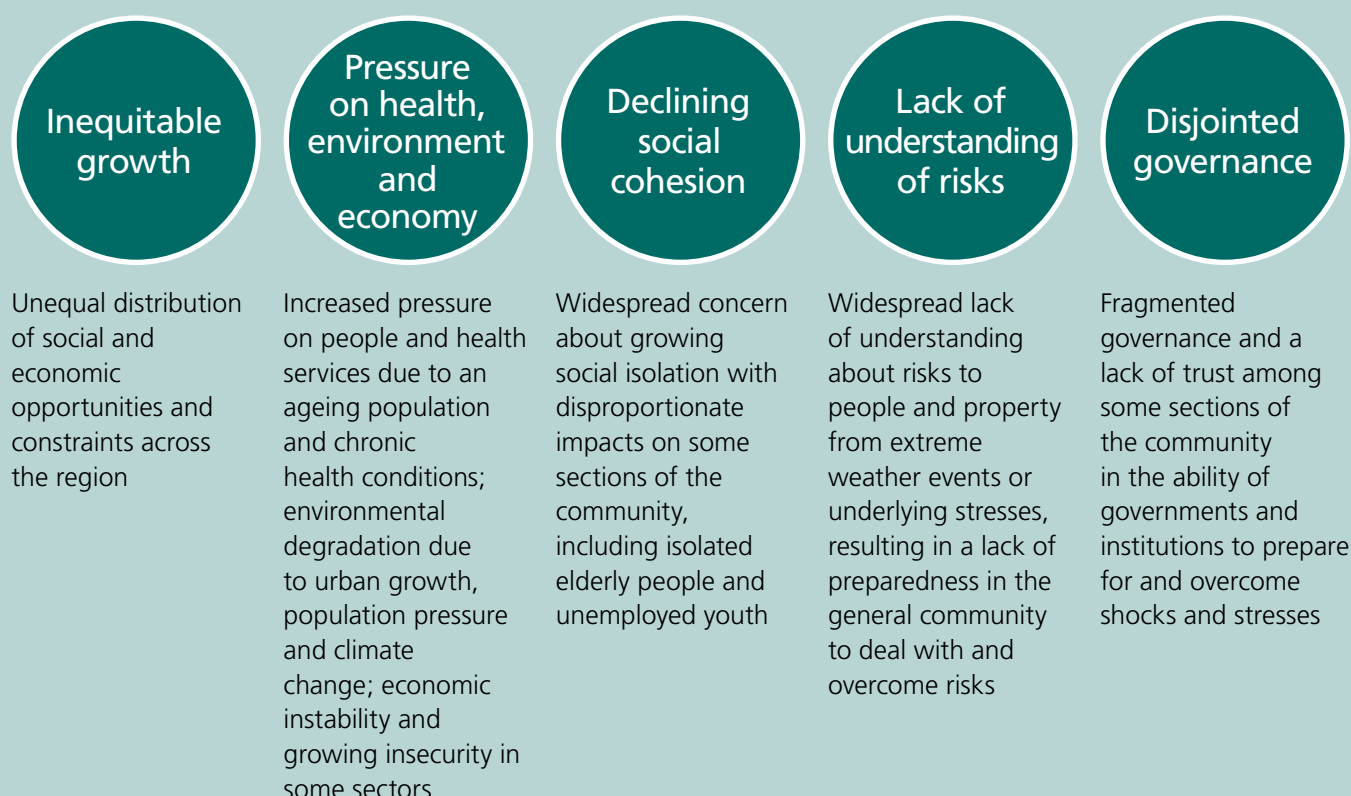
IPCC Working Group 1 Report, Climate Change 2021: The Physical Science Basis⁶

3. The resilience challenge

3.2 Metropolitan and local

Research undertaken by Resilient Sydney and Willoughby City Council demonstrates how global and national risks translate to resilience challenges at a metropolitan and local level.

In 2016 Resilient Sydney commenced an extensive two-year program of community consultation and technical assessment to identify the main resilience challenges confronting the Sydney metropolitan region. These challenges are summarised as follows:



"Climate change can be considered a pandemic because of its sweeping effects on the health of humans and the natural systems we depend on (ie, planetary health). The Global Syndemic – obesity, undernutrition, and climate change ... represents the paramount health challenge for humans, the environment, and our planet in the 21st century"

Lancet Commission, UK; www.thelancet.com Vol 393, February 23 2019⁷

Sydney-wide resilience challenges impact on people at a local level. In November 2020 Willoughby City Council commissioned Micromex Research to conduct a telephone survey about the resilience challenges of most concern to the Willoughby community. The 604 residents interviewed were concerned about a mixture of shocks and stresses. Table 2 summarises the top five responses in order of greatest concern.

Table 2: Top five shocks and stresses

	Shocks of greatest concern	Stresses of greatest concern
1	Black Summer bushfires	Climate change
2	COVID-19	Cost of housing
3	Current state of Australia's economy	Work/life balance
4	Last summer's storms and floods	Transport stresses in Willoughby
5	Excessively hot days and/or nights	Employment opportunities and job security

Source: *Willoughby Community Perception and Resilience Survey – 2020*, Micromex Research, December 2020⁸



3. The resilience challenge

Not everyone was concerned about shocks and stresses to the same degree.



- **Women** were significantly more concerned than men about bushfires, COVID19, climate change and impacts on overall health.



- **Non-English speaking households** were significantly more concerned about employment security, work/life balance, crime and safety and their ability to cope with and adapt to change.



- **Home renters** were significantly more concerned about cost of housing, excessively hot days/nights, lack of social contact and impacts on mental and/or physical health.



- **Home owners** were particularly concerned about bushfires, climate change, the Australian economy, storms and transport stress.

Survey participants nominated areas or activities they believe Council should focus on to enhance resilience in the community. Suggestions were wide-ranging including:

"More community services such as libraries and nature tours, architectural tours. Things that help with mental health."

"Make Willoughby a much greener place with the ability to get around without being reliant on cars."

"More information about things happening within the community."

The resilience challenges highlighted in research conducted by Resilient Sydney and Willoughby City Council informed development of the *Resilient Willoughby Strategy and Action Plan*.

"Whilst many of us work and spend in economies, we all live and die in communities the most vulnerable groups in these communities are always the hardest hit in a major crisis like this pandemic"

Bernie Fraser, Former Australian Reserve Bank Governor, September 2020

3.3 Impacts on people

Shocks and stresses impact on people at different times in life and in different ways. Although young working families with school-age children may lead active, sociable lives, they may also struggle to afford suitable housing. Later in life, elderly people may often own their own home, but also experience social isolation and loneliness.

Similarly, the impacts of shocks and stresses are not distributed equally across the population. People already affected by chronic stresses such as ill health, social isolation, housing stress or insecure employment have less capacity to overcome acute shocks such as COVID-19 or extreme heatwaves.

Social demographers Profile.ID conducted an 'analysis of vulnerability' for Council. It demonstrates that vulnerability varies across the Willoughby local government area.

Vulnerability

Metric	Area with highest percentage	Area with lowest percentage	Willoughby local government area average
People aged over 80	Chatswood West – Lane Cove North 8.1%	St Leonards 1.9%	4.3%
Older single-person households (65+ years)	Chatswood West – Lane Cove North 13.2%	St Leonards 3.1%	7.7%
Poor proficiency in English	Chatswood (CBD) 17.9%	Castlecrag 1.4%	7.6%
Unemployment rate	Chatswood (CBD) 7.6%	Northbridge 3.4%	5.0%
Disengaged youth	Willoughby 5.5%	North Willoughby– Willoughby East 1.1%	3.9%
Need for assistance due to disability	Chatswood West – Lane Cove North 5.8%	Castlecrag 2.2%	3.4%
Housing stress	Chatswood (CBD) 18.3%	Castlecrag 1.8%	8.5%

Source: profile.id, 2021

3. The resilience challenge

A national survey of young people for the *Our World, Our Say 2020* report, published by the Australian Institute for Disaster Resilience, shows increasing concern amongst young people about the existential threat of climate change.

"As young Australians, we are united in the opinion that our nation needs to do more to reduce its carbon emissions and become a greener, more sustainable nation. We are aware of climate change, and we are worried about climate change. Young people feel unprepared, under-educated, concerned and increasingly scared by the prospect of a disaster. The 2020 bushfires demonstrated that you need not live in the bush to be affected by a bushfire'."

Australian Institute for Disaster Resilience, *Our World, Our Say 2020* report⁹

These concerns have been compounded by the impacts of COVID-19 on education and employment opportunities for young people, as outlined in Willoughby City Council's *Economic Recovery Plan 2020*¹⁰.

The World Economic Forum's *Global Risks Report 2021*³ identifies youth disillusionment as being a "clear and present danger" over the next two years.

This Plan recognises the uncertainty many young people feel about their future, and prioritises actions that aim to address youth well-being and enhance resilience among Willoughby's young people, in particular those at risk.

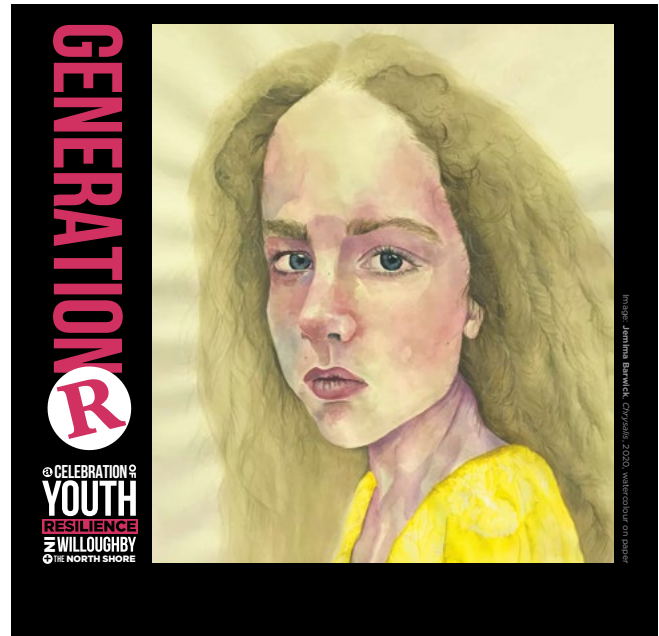
The Plan draws on relevant curriculum frameworks developed by Federal and NSW education agencies.

"Outcome 1: Children have a strong sense of identity"

- children feel safe, secure and supported
- children develop their autonomy, inter-dependence, resilience and a sense of agency"

My Time – Our Place Framework for School Age Care in Australia; Australian Government Department of Education and Training, 2011¹¹

Figure 6: Jemima Barwick, *Chrysalis*, 2020, watercolour on paper



Source: Generation R youth arts program, presented by Willoughby City Council, 3–28 March 2021

"Here we were, all locked up. Most of us going ballistic. Seeking help, friends, experiences, anything. Yes it was restricting. Yes it was tedious. However, I still think we all have different opinions that matter. In my opinion, what matters most is the way we handle the situation. Look. Reflect. The mirror you look into represents yourself. Not the way you look, but the way you are as a person."

"Looking into a Mirror" by Alayna Fahd, aged 13 – Celebration of Youth Resilience, Willoughby City Council, March 2021

3.4 The resilience of Aboriginal people

Willoughby City Council is fortunate to have a rich history of Aboriginal culture and heritage. The areas around Middle Harbour and the Lane Cove River were mainly inhabited by the Cammeraygal clan and contain many enduring elements of their ancient culture.

Shelters, art, engravings, middens and various artefacts exist in the Willoughby area, and at other sites on the North Shore and in the Greater Sydney region.

The British colonisation of Australia in 1788 completely disrupted a culture that had evolved over tens of thousands of years. This single, all-engulfing shock decimated Aboriginal society and caused widespread disease, displacement and death.

“Over a short period of time the Europeans depleted fish stocks by netting huge catches, reduced the kangaroo population with unsustainable hunting, cleared the land and polluted the water. As a result, the Aboriginal people throughout the Sydney Basin were soon close to starvation. Introduced European diseases, the battle for Sydney and the practice of genocide reduced the Sydney population by 80–90%”.

History at Willoughby – Fact Sheet No. 13 – Aboriginal people – Willoughby City Library Services, 2014¹²

For many generations since, Aboriginal people have demonstrated courage and resilience in the face of ongoing shocks and stresses. We acknowledge and respect the skills, characteristics and behaviours that enable Aboriginal people to maintain their resilience and continue to deal with and overcome adversity.

Figure 7: A midden on the shore of Middle Harbour



Source: Aboriginal Heritage Office, Northern Sydney Region NSW; April 2021

Figure 8: Taking of Colbee and Benelon



Source: NSW State Library

3. The resilience challenge

3.5 Overview of Willoughby resilience challenges

This section provides an overview of the resilience challenges in Willoughby, drawing on a range of studies, surveys and analyses conducted by Willoughby City Council and others (see section 5.2).



People

Willoughby's community is complex and diverse. Small pockets of disadvantage are surrounded by some of Sydney's most affluent suburbs. As the *Willoughby Council Community Wellbeing Survey 2019*¹³ shows, some in our community are isolated or lonely, particularly our elderly. 18% of residents living in an apartment 'feel like an outsider' in their local community. 17% of families with children find that maintaining a good work/life balance is a challenge. Although our multi-cultural community contributes significantly to our City's vitality and cosmopolitan identity, it can be vulnerable to social isolation and discrimination due to a lack of fluent English. 23% of residents have seen or experienced discriminatory attitudes. Newly arrived migrants working long hours can be vulnerable to job insecurity.

"Social cohesion has traditionally been high in Australian Society, defined as the presence or absence of social trust and communication between citizens. However social cohesion between our different communities is decreasing and social isolation is increasing."

City of Sydney, Resilient Sydney: A strategy for resilience 2018¹

Figure 9: Elderly people are often more vulnerable to shocks and stresses



Figure 10: Changing weather patterns due to climate change can cause damage in residential areas



Source: Willoughby City Council



Buildings

Willoughby is a city of contrasts. Modern, multi-storey buildings cluster around transport interchanges and retail hubs in Chatswood and St Leonards. These centres are surrounded by more traditional, low-rise residential and commercial suburbs, leading to significant urban bushland and the high-value foreshore areas of Middle Harbour. People living in lower-cost rental properties and older houses, may rely on expensive air conditioning to cope with extreme heat. Power outages caused by storms can leave residents stranded, particularly in high-rise buildings. Council's *Local Strategic Planning Statement 2020*¹⁴ notes that housing in Willoughby has become increasingly unaffordable, particularly for young families, key and essential workers and low-income residents.

"Low-income households suffer from overheated or cold homes and experience problems associated with energy inefficiency and poor indoor environmental quality (IEQ), which ultimately affect residents' quality of life, comfort, well-being, physical and mental health."

Institute of Physics, Conference Series: <https://iopscience.iop.org/article/10.1088/1757-899X/609/4/042067>¹⁵



Places

The pressures of a growing city are encroaching on the main centres of Chatswood and St Leonards. Conversely, some local centres are declining due to a lack of local services, retail diversity and job opportunities, as acknowledged in Council's *Willoughby Local Centres Strategy 2020*¹⁶. Traffic congestion is a major problem in parts of the Willoughby area, particularly near busy roads such as the Pacific Highway. Council's *Integrated Transport Strategy 2036*¹⁷ notes that dispersed residential areas are often car-dependent, with limited access to reliable or frequent public transport.

As outlined in *Our Green City Plan 2028*¹⁸, urban bushland and much-loved parks are heavily used and under increasing pressure from population growth, climate change and the ecological impacts of pollution, weeds and feral animals. Local creeks and foreshores are vulnerable to stormwater pollution and recreational pressures.

"Green infrastructure is fundamental to creating a high quality of life and is important in creating a region that is climate-resilient and adaptable to future needs."

*Greater Sydney Commission, North District Plan, 2018*¹⁹




Governance

2019–20 has been one of the most challenging years in the past century for Australian governments at every level. Unprecedented bushfires, persistent drought, storms and the COVID-19 pandemic have stretched government resources. Additional stresses on the community include unaffordable housing, issues with the natural and built environment, and social problems ranging from discrimination and family violence to youth anxiety. Although our public services are effectively tackling many of these stresses, problems may occur due to inadequate communication, poor coordination, under-resourcing or a lack of sufficient evidence on which to base decisions.

"Australia's social cohesion has withstood the COVID-19 pandemic, with attitudes largely positive and trust in government significantly higher. Whilst COVID-19 was seen as the most important issue facing the country, a majority of Australians remained optimistic about the future (70% in July, and 75% in November), and trust in government was the highest ever recorded in the surveys (54%)".

Mapping Social Cohesion Report 2020, Scanlon Foundation – <https://scanlonfoundation.org.au/2020-mapping-social-cohesion-report-out-now/>²⁰

4. Resilience planning network



The methodology and structure of the Plan reflects an approach to resilience planning developed over several years by a network of resilience organisations at a global, state and metropolitan level.

4.1 100 Resilient Cities

100 Resilient Cities (100RC) was established by the Rockefeller Foundation in 2013 to act as a catalyst for global cities to build resilience in the face of the growing shocks and stresses of the 21st century.

In 2019 100RC evolved into the self-supporting Resilient Cities Network who's role is to:

"Bring together global knowledge, practice, partnerships, and funding to empower our members to build safe and equitable cities for all."

<https://resilientcitiesnetwork.org/about/>²¹

1,000 cities applied to join the network and 98 cities have been accepted as members, as at July 2019. They include Luxor (Egypt), Rio De Janeiro (Brazil), Vancouver (Canada), Boston (US), London (UK), Dakar (Senegal), Jaipur (India) and Huangshi (China).

Australia's member cities are Sydney and Melbourne.

4.2 Australian Government

In May 2021 the Federal Government formed the new National Recovery and Resilience Agency (NRRA) in response to the recommendations of the 2020 Royal Commission into Natural Disaster Arrangements following the Black Summer bushfires.

Providing national leadership and coordination, the Agency is driving efforts to reduce the impact of natural disasters. It provides expertise in natural disaster response, recovery and resilience.

"The NRRRA will help support communities respond to large-scale natural disasters and undertake new initiatives to manage the impact of future events and the changing climate."

www.pm.gov.au/media/helping-communities-rebuild-and-recover-natural-disasters²²

"A focus on good design will help create resilient cities and places that mitigate and adapt to the effects of a changing climate. Decisions made now will continue to affect our lifestyles for decades into the future. Design can help explain the interrelatedness of things such as climate and resources in managing risk and unintended consequences."

*Better Placed: An integrated design policy for the built environment of NSW, Government Architect of NSW 2017*²³

4.3 NSW state government

In May 2020 Shane Fitzsimmons AFSM was appointed by the NSW State Government as the inaugural Commissioner of Resilience to lead the newly established Resilience NSW (formerly the NSW Office of Emergency Management).

Resilience NSW is the:

"Lead disaster management agency for NSW, responsible for all aspects of disaster recovery and building community resilience to future disasters. The agency oversees and coordinates emergency management policy and service delivery with a focus on social, economic, infrastructure and natural environment outcomes".

Many other parts of the NSW Government are involved in resilience building, including strategic planning organisations such as Infrastructure NSW, Greater Sydney Commission and the NSW Department of Planning, Infrastructure and Environment; research entities such as Adapt NSW; and operational agencies such as Transport for NSW, NSW Fire and Rescue and the NSW National Parks and Wildlife Service.

Strategies, plans and guidelines developed by NSW Government agencies informed the development of this Plan, as outlined in section 5.2.

4. Resilience planning network

4.4 Resilient Sydney

Sydney successfully applied to join the Resilient Cities Network in 2015. The City of Sydney hosts the Resilient Sydney office comprising the Chief Resilience Officer and a small support team.

Resilient Sydney is a collaboration across 33 Sydney metropolitan councils, state agencies such as Resilience NSW and the Greater Sydney Commission, business representatives and the community.

A steering committee chaired by the City of Sydney's CEO provides policy advice and strategic direction to the NSW Government and member councils via the Resilient Sydney Office. Willoughby City Council's CEO is a member of the Steering Committee. Each council nominates a Resilience Ambassador and a Local Emergency Management Officer (LEMO) to support the program and ensure their council is represented and engaged.

The Resilient Sydney team provides a range of support services to member councils to facilitate a coordinated approach to resilience planning and action across Metropolitan Sydney.

Willoughby City Council would like to acknowledge the invaluable advice and support provided by the Chief Resilience Officer and her team during the development of the Plan.





5. Developing the Plan

Council adopted a staged approach to the development of the Plan. The stages are outlined in Figure 11 below.

The first three stages (research, consultation and risk analysis) informed the development of a strategic framework with desired outcomes and a series of new, prioritised actions to complement Council's existing resilience-building activities.

Sections in this Plan

Figure 11: Resilience planning stages



5.1 Strategic context

Two key documents have provided the strategic context for developing this Plan.

Resilient Sydney – A strategy for city resilience

Published by Resilient Sydney in 2018, this was the first resilience strategy for metropolitan Sydney. The strategy:

“sets the direction we must take to strengthen our ability to survive, adapt and thrive in the face of increasing global uncertainty and local shocks and stresses”.¹

Informed by engagement with over 1,000 people and over 100 organisations, the strategy outlines a five year action plan with five strategic directions and 40 specific actions to address the resilience challenges outlined in section 3.2. The five strategic directions are:

- 1) Create a people-centred city:** include communities in decision-making for growth and equity
- 2) Live with our climate:** adapt to sustain our quality of life and our environment
- 3) Connect for strength:** make every Sydneysider feel they belong in our community and city
- 4) Get ready:** know how to prepare, respond and recover
- 5) Be one city:** operate as a unified city



Source: Resilient Sydney

5. Developing the Plan

Sydney resilience challenges – what makes Sydney vulnerable?

1

Create a
people-
centred city

Growing
inequity and
differential
opportunities
across the city

2

Live with
our climate

Lack of actions
adapting to heat
and climate

3

Connect
for strength

Declining social
cohesion

4

Get ready

Poor community
understanding
and
preparedness
for emergencies

5

Be one city

Disjointed
governance and
distrust

Our Future Willoughby 2028 – Community Strategic Plan

Published by Willoughby City Council in 2018, the *Community Strategic Plan*²⁴ outlines the vision and priorities for Willoughby as:

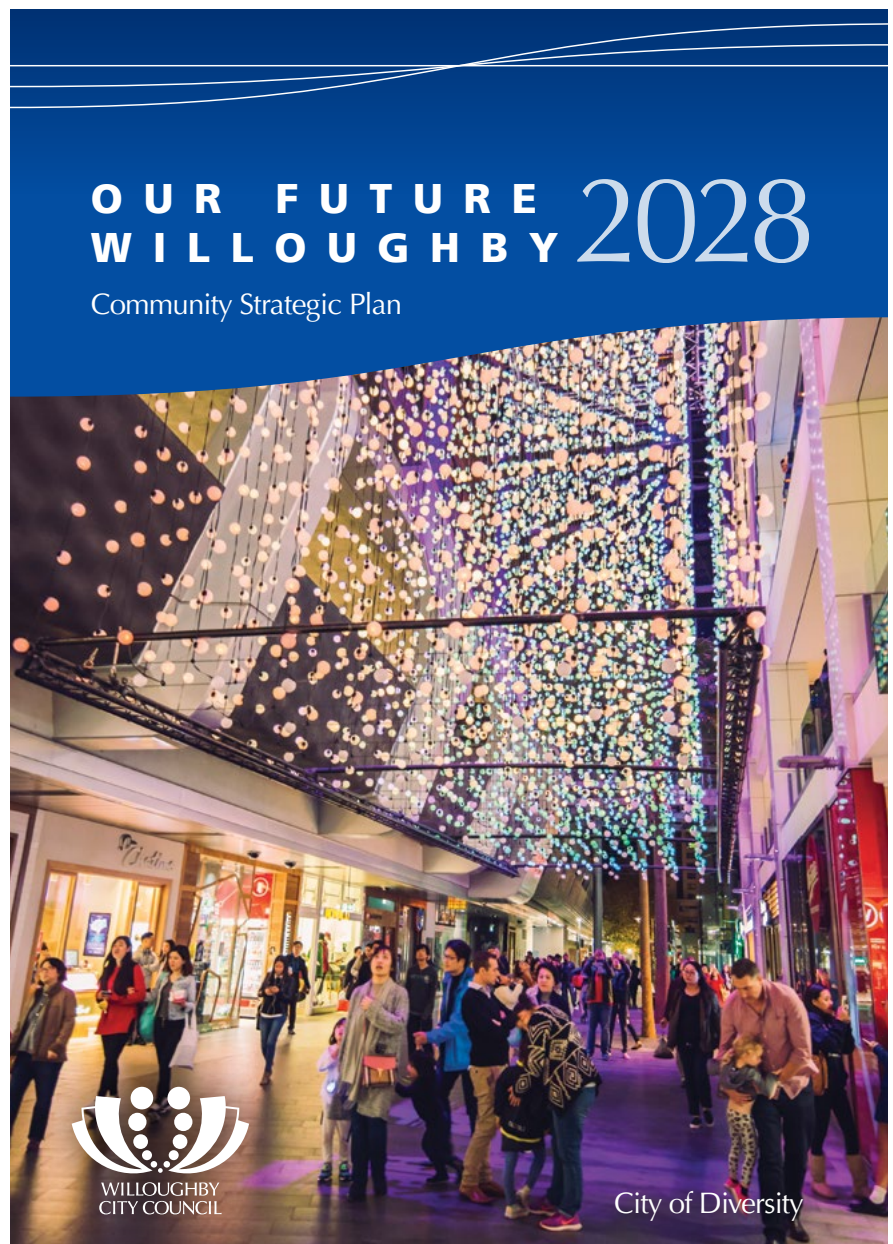
*A city of diversity:
diverse landscapes,
people and businesses.*

The Plan sets out five strategic outcomes and 29 community priorities to achieve the community's vision over the next ten years.

- 1) Green** Our City will become a leader in sustainability
- 2) Connected and inclusive** Our City is connected through our people, transport, technology and history
- 3) Liveable** Our City is safe, engaging, vibrant and supported by great urban design
- 4) Prosperous and vibrant** Our vibrant City will have a robust, creative and innovative economy with meaningful and diverse employment opportunities close to home
- 5) Effective and accountable** Our City is governed by an ethical and informed Council that is open, transparent and accountable

The selection and prioritisation of actions in this Plan are informed by the strategic directions in both the *Resilient Sydney – a strategy for city resilience*¹ and the *Willoughby Community Strategic Plan: Our Future Willoughby 2028*²⁴.

This ensures that Council's investment in resilience-building contributes to the achievement of the long-term vision and strategic direction for both metropolitan Sydney and the City of Willoughby.



5. Developing the Plan

5.2 Research and consultation

The Plan has been informed by a range of research and consultation actions including those outlined in the table below.

Table 3: Research and consultation actions

Action	Source
Desktop analysis of strategies and plans developed by planning authorities, resilience groups and response agencies	Resilient Sydney, Greater Sydney Commission, Willoughby City Council and other agencies (see page 35)
Targeted community surveys at a local, regional and national level	<i>The Pulse of Greater Sydney 2020 Report</i> , Greater Sydney Commission; ²⁵ <i>COVID19 Community Pulse Survey 2020</i> , Northern Sydney Regional Organisation of Councils; ²⁶ <i>Community Perception and Resilience Survey 2020</i> , Willoughby City Council ⁸
Consultation with specific community sectors and third party service providers	Culturally and linguistically diverse (CALD) communities, Willoughby and Lane Cove SES, Nextdoor social media platform
Consultation with a wide range of internal and external resilience stakeholders	Internal: councillors and executive leadership team; unit managers, operations staff External: Resilient Sydney, NSROC, WSROC, GSC, DPIE, Government Architect NSW
Public exhibition of the draft Plan from 18 June to 1 August 2021 via Council's 'Have Your Say' community engagement platform.	Residents, service providers, community associations, external agencies and resilience stakeholders, Council staff

During public exhibition of the draft Plan community members were invited to 'Have Your Say'. There was universal support for the strategic directions and individual actions outlined in this Plan.

Comments submitted included the following:

"A great road map for much-needed change"
resident's comment

"The Plan is the basis for a stronger response to the many difficult issues that lie ahead for our community" resident's comment

"We commend Council for preparing a Plan which comprehensively addresses a range of physical, social, political and economic issues"
North Sydney Local Health District

"Need to involve community partners already working in this people space" resident's comment

"I particularly support the bushcare program and green spaces for people and wildlife"
residents' comment

"Commendable and well-presented. The risk analysis is comprehensive. The Plan outlines a clear path of actions and a way to measure outcomes"
Resilient Sydney

Key documents and programs

Some of the resources used to inform the *Willoughby Resilient Strategy and Action Plan* include:



● Global resources

- United Nations (UN) – *Sendai Framework for Disaster Risk Reduction 2015–2030*²⁷
- UN – *Sustainable Development Goals 2015*²⁸
- World Economic Forum – *2021 Global Risks Report*³
- Resilient Cities Network – *various*
- UN IPCC Working Group 1 report, *climate change 2021: The Physical Science Basis*²⁹

● National resources

- Council of Australian Governments – *National Strategy for Disaster Resilience 2011*³⁰
- Climate Council of Australia – *various*
- Commonwealth Government – *Disaster Response Plan 2020*³¹
- Australian Government Department of Education and Training, *My Time-Our Place Framework for School Age Care 2011*¹¹

● State resources

- Premier's Priority – *Greening our city 2019*³²
- NSW Government – *NSW Climate Change Policy Framework 2016*³³
- Government Architect NSW – *Greener Places: An urban green infrastructure design framework 2020*³⁴
- Government Architect NSW – *Better Placed: An integrated design policy for the built environment of NSW 2017*²³

● Regional resources

- Greater Sydney Commission – *Greater Sydney Region Plan: A Metropolis of Three Cities 2018*³⁵
- Greater Sydney Commission – *North District Plan 2019*¹⁹
- Resilient Sydney – *A strategy for city resilience 2018*¹
- Northern Sydney Regional Organisation of Councils – *10-Point Plan 2018–19*³⁶

● Local resources

Various Willoughby City Council publications, including:

- *Disability Inclusion Action Plan, 2017*³⁷
- *Our Future Willoughby 2028*²⁴
- *Our Green City Plan 2028*¹⁸
- *Integrated Transport Strategy 2036*¹⁷
- *Local Strategic Planning Statement, 2020*¹⁴
- *Chatswood CBD and Urban Design Strategy 2036*³⁸
- *Affordable Housing Policy, 2020*³⁹
- *Community Recovery Plan, 2021*⁴⁰

Other relevant local government publications

Figure 12: UN Sustainable Development Goals relevant to resilience



5. Developing the Plan

5.3 Risk analysis

Council undertook a risk analysis to inform development of this Plan. The analysis focused on two aspects:

- Risks to the community
- Risks to Council assets and community services

The risk analysis assessed potential disruptions or threats to the Willoughby community and to Council (acute shocks and chronic stresses) and generated over 100 resilience actions to address them.

Many of these actions are already being implemented by Council and its partners. New actions generated are prioritised to address resilience gaps and create additional economic, social and environmental benefits, as detailed in the Action Plan (section 6).

Figure 13: Meals on Wheels services help to maintain the resilience of elderly residents



Source: Willoughby City Council

5.4 Strategic framework

A value proposition and four resilience outcomes provide the strategic framework for the implementation of the Action Plan.

The value proposition is:

a thriving, vibrant City that is resilient, sustainable and connected

The resilience outcomes are:



Resilient people: our diverse community is healthy, adaptable, self reliant, inclusive and connected.



Resilient buildings: our buildings are safe, well-designed, affordable and sustainable.



Resilient places: our places can withstand the challenge of climate change, sustain biodiversity, and support vibrant, connected communities.



Resilient governance: our public agencies and institutions are trusted, efficient, and responsive to community needs.

5.5 Prioritising actions

The efficacy of each action was assessed against six resilience criteria and a high-priority was assigned to those actions which scored well.

Table 4: Criteria for prioritising actions to achieve a resilient city

The action is ...	
integrated	It addresses multiple community resilience challenges
achievable	It is cost-effective and viable
needs-based	It focuses on meeting the needs of vulnerable communities
place-specific	It achieves tangible community benefits on the ground
engaging	It promotes community participation, ownership and a culture of self-reliance
strategic	It addresses one or more of the strategic outcomes outlined in <i>Community Strategic Plan: Our Future Willoughby 2028</i> ²⁴ and <i>Resilient Sydney: A Strategy for City Resilience 2018</i> ¹

The high-priority actions are listed in the Action Plan in section 6 and will provide the focus for Council’s resilience building activities in the short to medium term (0 to 5 years).

This will require some budgetary commitments in Council’s four-year delivery plans and annual operational plans. External grants will also be sought for some of the actions.

Detailed project bids will be prepared for each action and resources allocated in accordance with Council’s project management and control system.

Figure 14: *Tenacious Realm*, Willoughby Visual Arts Biennial, Willoughby City Council 2019 – Tamara Whyte, *Bulman Hybrid*, 2018, video still



Source: Willoughby City Council

6. Action Plan



The Action Plan table details new, high priority actions to achieve additional resilience outcomes.

These new actions complement a range of resilience-building actions identified in the risk analysis which are already being implemented by Council, as detailed in section 7.

The columns in the Action Plan table below provide the following information:

Risk – the risk to the Willoughby community or Council arising from a major shock, stress or challenge

Strategic direction – a high level statement describing Council's strategic response to the risk

Action – individual actions to be implemented by Council and partner(s) to address the risk

Partners – organisations or groups who Council may partner with to implement the action



Resilient People

our diverse community is healthy, adaptable, self reliant, inclusive and connected

New actions

Risk	Strategic direction	Action	Partners
Increasing social isolation and loneliness reduces capacity to withstand shocks and stresses	Engage and connect communities, promote self-reliance	<ol style="list-style-type: none"> 1. Launch <i>Nextdoor</i> social media platform <i>November 2021</i> 2. Initiate <i>Know Your Neighbours</i> program, including events, community-driven place making projects to celebrate unique characteristics e.g. "adopt a street", public art, pop-up parklets, activities for isolated and vulnerable people, social research into good-neighbourliness <i>Ongoing</i> 	Volunteer groups (e.g. Bushcare, Clean Up Australia), social network platforms (e.g. Nextdoor, Willoughby Living), community groups (e.g. Neighbourhood Watch, service clubs, seniors groups)

6. Action Plan

Risk	Strategic direction	Action	Partners
Increased youth anxiety, resentment, disillusionment and loneliness	Increase targeted support to build resilience amongst vulnerable and at-risk youth	<p>3. Launch comprehensive <i>Resilient Youth Program</i> based on successful pilots at Chatswood High School, Waves of Wellness, Willoughby Girls High School, to provide targeted support to young people to develop resilience e.g. positive psychology; consent and addiction counselling; primary school programs</p> <p><i>Annually</i></p>	Schools; universities and colleges; youth support groups; NSW DoE, NSW DCJ; NSW Police; youth service providers e.g. inter-agency groups, Headspace
Increased car dependency causes congestion, emissions and stress and reduces fitness, social connections and independence	Increase community awareness and participation in schools active travel	<p>4. Establish <i>Schools Active Travel</i> pilot program in two schools to support more walking and riding to school</p> <p><i>December 2022</i></p>	Cycling advocacy groups (e.g. Bicycle Network, Bike North), TfNSW, NSW DoE, local schools, SINSW
Extreme weather causes damage to people and property and associated trauma	Increase community awareness of extreme weather risks and strengthen self-reliance	<p>5. Implement “<i>Connecting the Disaster Dots</i>” – emergency planning program for CALD communities</p> <p><i>October 2021</i></p> <p>6. Run an awareness program to support <i>Red Cross Get Ready</i> campaign</p> <p><i>September 2021 – ongoing</i></p> <p>7. Launch <i>Climate-Wise Communities</i> Program to assist households and neighbourhoods prepare for emergencies e.g. bush fires, floods, extreme heat</p> <p><i>October 2022</i></p>	Willoughby-Lane Cove SES, NSW Fire and Rescue, Resilience NSW, NSROC, partner councils, NSW Health, Resilient Sydney, inter-agency networks, CALD community groups



Resilient buildings

our buildings are safe, well-designed, affordable and sustainable

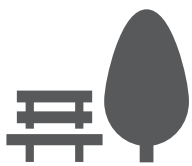
New actions

Risk	Strategic direction	Action	Partners
Increasing proportion of income spent on housing with resulting increases in housing stress	Initiate and/or enhance access to affordable housing programs and funding mechanisms	<p>8. Enhance <i>Affordable Housing</i> opportunities e.g. improved access for vulnerable people and key workers, increased supply</p> <p><i>Ongoing</i></p> <p>9. Launch <i>Mind Your Budget</i> project to enable vulnerable residents to develop financial resilience and reduce housing stress</p> <p><i>Ongoing</i></p>	Commercial and not-for-profit affordable/social housing developers and operators, DPIE, NSW Land and Housing Corporation, NSW DCJ, not-for profit financial services, TAFE
Extreme heat impacts comfort, productivity and health	Initiate and/or enhance sustainable programs to address thermal comfort in the built environment (indoors and outdoors)	<p>10. Deliver <i>Beat the Heat</i> program, including <i>Cooler Homes</i>, <i>Cooler Streets</i> and <i>Cooler Schools</i> pilot programs and a <i>Cool Retreat</i> register</p> <p><i>July 2024</i></p>	Residential and commercial building owners/landlords, NSW DPIE, NSW DCJ, NSW Health, NSW LHC, community service providers, NSW Education and local schools, universities, non-profit and faith-based groups, RoCs

Figure 15: The Concourse, Chatswood



6. Action Plan

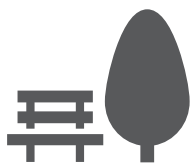


Resilient places

our places can withstand the challenge of climate change, sustain biodiversity and support vibrant, connected communities

New actions

Risk	Strategic direction	Action	Partners
Drought causes decline in biodiversity, water restrictions, bushfire smoke and dust	Increase community capacity to address drought impacts, air quality issues and water cycle management challenges	11. Deliver <i>Don't Dry Out</i> awareness program to help people prepare for and overcome drought, poor air quality and other impacts e.g. drought resistant gardens, WSUD (water sensitive urban design), use of face masks and air filters on smoky days <i>December 2022</i>	DPIE, NSW GA, NSW EPA, stormwater and WSUD sector, Sydney Water, NSW Health, design and development sector
Decline in urban biodiversity and tree canopy, reduced availability of green infrastructure	Extend neighbourhood support for, access to and enjoyment of urban greening, biodiversity and green infrastructure	12. Launch <i>Bushcare 2.0</i> to increase bushcare volunteer numbers, especially amongst young people, seniors and CALD (culturally and linguistically diverse) communities <i>March 2022</i> 13. Launch <i>Gardening Willoughby</i> to encourage participation in community gardening e.g. programs for high-rise building residents, neighbourhood propagation and community nurseries <i>August 2022</i> 14. Initiate two <i>Urban Greenways</i> to better connect our unique green spaces and enhance opportunities for residents to enjoy nature and improve fitness by walking and cycling <i>December 2024</i> 15. Implement <i>Urban Forest Program</i> to enhance community awareness, protect and extend the urban tree canopy (including green walls and roofs) <i>Ongoing</i>	DPIE, TfNSW, utilities, NSWGA, Resilient Sydney, AILA, not-for-profit urban greening sector, residents' and community groups, progress associations
Unsustainable waste practises generate social, economic and environmental costs and impacts	Implement sustainable, resilient waste management	16. Launch <i>Willoughby Waste</i> to encourage greater take-up of more sustainable waste practises at the neighbourhood level e.g. food waste and composting trial, circular economy pilot projects (coffee pods, plastics, textiles) <i>June 2024</i>	NSW EPA (Waste); waste and recycling sector; universities; ROCs (e.g. SSROC); construction sector; place-based community groups; progress associations, local business organisations



Resilient governance

our public agencies and institutions are trusted, efficient and responsive to community needs

New actions

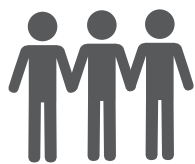
Risk	Strategic direction	Action	Partners
Cyber-attack disruption of digital and on-line services causes social, economic and environmental impacts	Increase community awareness of the strengths and weaknesses of the digital environment	17. Initiate <i>Cyber Safe Willoughby</i> program to raise community awareness of scams and cyber-attack e.g. Tech Savvy Seniors, social media literacy and LOTE (language other than English) programs <i>June 2022</i>	Services NSW, NSW DCJ, NSW Police, third party service providers for the elderly and vulnerable
Pandemic disruption of everyday life causes major social and economic impacts	Maintain community awareness of pandemic threats and defence measures	18. Develop <i>Pandemic Awareness Program</i> for existing and new pandemic threats e.g. resilience for seniors programs <i>Ongoing</i>	NSW Health, emergency response agencies, ROCs
Resilience needs of vulnerable residents are inadequately met due to miss-communication and/or poor coordination	identify gaps and enhance coordinated delivery of community services	19. Deliver <i>Willoughby Collective Impact Model</i> to address gaps and facilitate a more coordinated approach to community services provision e.g. via inter-agency groups <i>June 2023</i>	Community services providers (agencies, not-for-profit groups), community stakeholders, relevant inter-agency groups
Disjointed and/or ineffective institutional responses to resilience shocks and stresses	Enhance leadership, collaboration and delivery of effective and integrated resilience strategies and programs	20. Actively partner with resilience organisations, local, state and federal agencies to evaluate progress and enhance resilience thinking and action <i>Ongoing</i>	State and federal agencies; Resilient Sydney; local government; universities and industry groups

7. Existing resilience actions

The risk analysis identified a wide range of actions at a strategic and operational level which are already being implemented by Willoughby City Council to support and strengthen community resilience.

This Plan provides an opportunity to focus on these existing actions and the resilience outcomes and benefits they generate.

Some existing actions may be extended and new actions commence when additional internal or external resources become available.



Resilient People

our diverse community is healthy, adaptable, self-reliant, inclusive and connected

Existing actions:

- Extend digital platforms to connect with 'hard to reach' groups
- Provide professional and volunteer-based community services to support vulnerable people
- Implement resilience-themed Live Well in Willoughby programs
- Extend fitness and wellbeing programs for vulnerable groups
- Promote cross-cultural understanding through events and multi-cultural programs
- Present arts exhibitions and programs that can thematically support resilience outcomes
- Promote inter-generational understanding and support through activities and programs
- Extend road safety
- Support citizen-science and general environmental awareness in the community
- Advocate and support healthy work/life balance
- Conduct surveys and social research to evaluate programs and their impacts on community well-being, neighbourhood connections and resilience

Figure 16: Council-run 'Live Well in Willoughby' workshops improve residents' well-being



Source: Willoughby City Council



Resilient buildings

our buildings are safe, well-designed, affordable and sustainable

Existing actions:

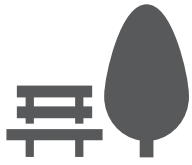
- Equip council buildings and assets to withstand the impacts of extreme weather
- Support and extend DDA (Disability Discrimination Act) design requirements and controls in buildings and places
- Develop innovative planning controls to facilitate 'smart', sustainable buildings and community infrastructure
- Mitigate urban noise in built and natural environments
- Promote "COVID-friendly" buildings and public space design
- Encourage and support sustainable business practises
- Affordable housing provisions in relevant strategies and plans e.g. LEPs

Figure 17: Willoughby City Council solar farm, Westfield Centre car park, Albert Avenue, Chatswood



Source: Willoughby City Council

7. Existing resilience actions



Resilient places

our places can withstand the challenge of climate change, sustain biodiversity and support vibrant, connected communities

Existing actions:

- Improve thermal comfort in pedestrianised places
- Provide robust playing surfaces in parks and ovals
- Implement 'safer by design' principles and practises in highly pedestrianised areas and open spaces
- Review planning policies, guidelines and incentives to facilitate place-based planning and the achievement of resilience outcomes in new developments
- Conserve and extend urban tree cover
- Implement innovative and sustainable bushland management
- Manage and protect foreshores and waterways
- Implement sustainable stormwater management through best practise water sensitive urban design (WSUD) and pollution control
- Promote shared-use of infrastructure corridors to optimise benefits to the community
- Conserve and interpret Aboriginal heritage
- Facilitate growth in walking and cycling, including expansion of cycle and pedestrian infrastructure
- Protect employment lands
- Stimulate the night-time economy and reinvigorate declining local centres

Figure 18: *The Tenacious Realm*, Willoughby Visual Arts Biennial, Willoughby City Council – Louis Pratt, *Legacy*, 2019, coal, fibreglass, resin and steel



Source: Willoughby City Council



Resilient governance

our public agencies and institutions are trusted, efficient and responsive to community needs

Existing actions:

- Support integrated and coordinated planning, design and delivery of place-based improvements
- Support and/or facilitate inter-agency collaboration in emergencies through local emergency management committees and other means
- Encourage sustainable procurement and operations
- Provide resilience training and support
- Maintain and enhance business continuity and risk management practise
- Adopt innovative approaches to climate change risk assessment and valuation of green infrastructure
- Procure appropriate insurance and natural disaster funding to address growing risks from climate change

Figure 19: Ecological and hazard reduction burning



Source: Willoughby City Council

8. Implementation and monitoring

Successful implementation of the *Resilient Willoughby Strategy and Action Plan* requires effective collaboration and integration of outcomes across a number of Council's strategic and operational areas.

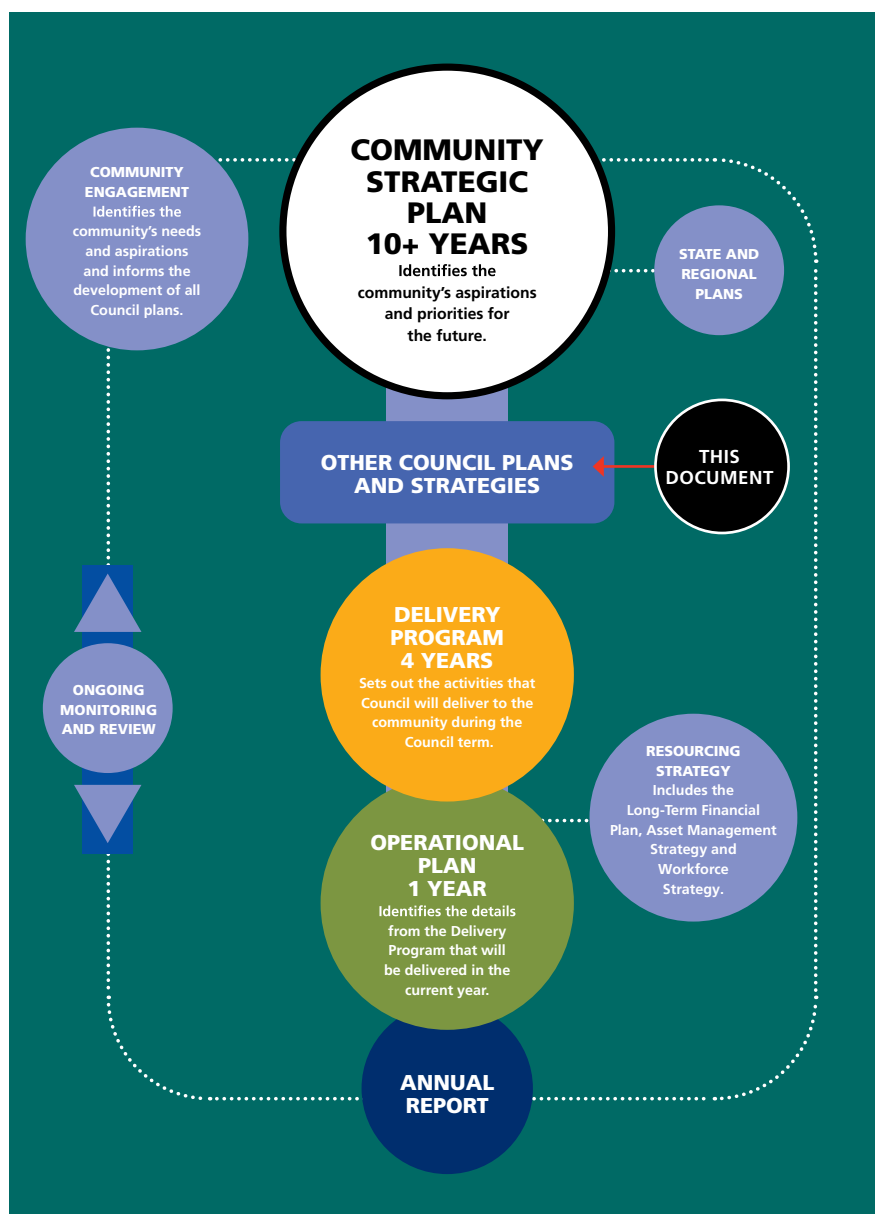
We will continue to emphasise collective leadership, knowledge sharing, community participation, diverse stakeholder engagement and capacity building.

Combining services to deliver measurable resilience outcomes has the potential to benefit a number of different parts of Council, delivering innovation, cost efficiencies and community benefits.

Outcomes reporting for this Plan will be incorporated in Council's existing Integrated Planning and Reporting Framework.

Willoughby City Council, in collaboration with Resilient Sydney and other resilience partners will continue to monitor and evaluate the benefits to the community and Council of investment in resilience-building activities.

Figure 20: Community Strategic Plan – *Our Future Willoughby 2028*



Source: Willoughby City Council

This will involve a combination of:

Standard reporting required as part of Council's Integrated Planning and Reporting Framework. This will include surveys of community wellbeing and customer satisfaction undertaken by Council at regular intervals.

Peer review of specific elements of the Plan, conducted by resilience partners and specialist organisations such as Resilient Sydney and the Greater Sydney Commission (GSC).

Community consultation and stakeholder feedback involving input from specific communities involved in or benefiting from resilience activities, for example bush care volunteers, and stakeholder partners involved in delivering community services with Council, for example culturally and linguistically diverse (CALD) community workers.

Social research on specific aspects of resilience, such as social cohesions, neighbourliness and vulnerability in the community

Information and data from the monitoring and evaluation process will feed directly into annual and four-year reviews of the *Resilient Willoughby Strategy and Action Plan*.

Progress reporting will inform reviews of other relevant council programs and plans, including *Our Green City Plan 2028*¹⁸, *Our Future Willoughby 2028*²⁴, the *Willoughby City Local Strategic Planning Statement*¹⁴, the *GSC North District Plan*¹⁹, and the *Lane Cove/Willoughby Emergency Management Plan*⁴¹.

"Valuing the dividend is critical to more fully understanding why we should build resilience and encourage resilience planning. The full impacts are often not immediately recognised, and can be difficult to estimate. But, like major infrastructure investment that forecast decades worth of economic benefit, we must do the same for resilience planning if decision-makers are to invest in policies and projects that promote resilience."

Judith Rodin, President (2015–2017), Rockefeller Foundation⁴²

Figure 21: Willoughby Council workshop on resilience issues facing non-English speaking communities



Source: Willoughby City Council

8. Implementation and monitoring

Figure 22: The role of resilience

Where does resilience sit?



"Sydney is subject to a range of natural and urban hazards which can be exacerbated by climate change ... to be resilient, communities need social cohesion, access to economic resources, and access to quality information about hazards that may affect them."

Greater Sydney Region Plan – A Metropolis of Three Cities, Greater Sydney Commission, 2018³⁵



Glossary

100RC: The 100 Resilient Cities initiative, established by the US-based Rockefeller Foundation in 2013. In 2019, it evolved into the 100 Resilient Cities Network: resilientcitiesnetwork.org

AILA: Australian Institute of Landscape Architects

BASIX: The Building Sustainability Index, a planning tool used to measure water and energy usage, and thermal comfort performance

CALD: Culturally and linguistically diverse

DCJ: NSW Department of Communities and Justice

DDA: *Disability Discrimination Act 1992*

DoE: NSW Department of Education

DPIE: NSW Department of Planning, Industry and Environment

GANSW: Government Architect NSW

GreenWay: multi-purpose urban environmental corridor

Green Grid: network of connected waterways and urban green corridors

GSC: Greater Sydney Commission

LGA: Local government area

IPCC: UN Intergovernmental Panel on Climate Change

LEMO: Local emergency management officer

LEP: local environment plan

LOTE: language other than English

NABERS: The National Australian Built Environment Rating System, used to measure and compare the environmental performance of Australian buildings and tenancies

NGO: Non-government organisation

NSRR: National Recovery and Resilience Agency

NSROC: Northern Sydney Regional Organisation of Councils

NSWLHC: NSW Land and Housing Corporation

Resilience: The capacity of individuals, communities, businesses and systems within a city to survive, adapt and thrive no matter what kinds of acute shocks and chronic stresses they experience

ROC: Regional organisation of councils

SES: State Emergency Service

SINSW: Schools Infrastructure NSW

TfNSW: Transport for NSW

UN: The United Nations

WSUD: Water-sensitive urban design

WSROC: West Sydney Regional Organisation of Councils

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Contact:

For further information about the Resilient Willoughby Program and development of this Plan, please contact Council's Resilience Specialist, Nick Chapman@www.willoughby.nsw.gov.au/resilient-willoughby



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ADDRESS

Level 4, 31 Victor Street, Chatswood, NSW 2057
PO Box 57 Chatswood, NSW 2057

PHONE

02 9777 1000

EMAIL

email@willoughby.nsw.gov.au