

WELLINGTON CYCLEWAYS PROGRAMME MASTER PLAN

- PROJECT INSIGHTS

AUTHORS AND PRESENTERS:

Sam Corbett

MCP, BS, Member of IPENZ
Section Leader, Transport Planning, Jacobs
Sam.Corbett@jacobs.com

Terri Collett

BPlan (Hons), Member of IPENZ
Senior Transportation Planner, Jacobs
Terri.Collett@jacobs.co.nz

ABSTRACT:

Jacobs was commissioned to prepare a cycleway master plan for Wellington City Council to create a blueprint for improving cycling in the city. The master plan proposes a city wide cycleway network estimated at approximately \$101 million to construct over the next 20 years. The development of the master plan involved a series of workshops with councillors in which eight different cycling investment packages were evaluated. Based upon the feedback from these workshops, a preferred package was selected that prioritises creating a connected regional cycling network to increase the number of trips completed by people on bikes in Wellington. The master plan also recommends educational and promotional cycle related programmes to improve cycle safety and awareness in Wellington. The Wellington Cycleways Programme Master Plan was unanimously approved by the Transport and Urban Development committee of the Wellington City Council on 9 September 2015. The NZ Transport Agency has recently approved the programme business case, which has been developed in tandem to the cycleway master plan, enabling Wellington City Council to proceed with developing indicative business cases for key cycleway corridors throughout the city. This paper details the purpose for creating the Wellington Cycleways Programme Master Plan and describes the process undertaken to gain collective agreement on the Master Plan vision and programme for cycling in Wellington and highlights the importance of a collaborative and strategic approach for developing an integrated cycle transport network and 'blueprint'.

INTRODUCTION

Cycleway programmes are gaining momentum in a number of regions around New Zealand with the support of \$100 million of additional funding being allocated through the Urban Cycleways Programme (UCP). Together with investment from local councils and the National Land Transport Fund, the Programme provides a total of \$333 million to expand and significantly improve New Zealand's urban cycling network by 2018.

Wellington City's forecast population growth of more than 50,000 people over the next 30 years will place additional pressure on the existing transport network. To support this forecast growth, provide Wellingtonians with improved transport options and alleviate congestion on the transport network, cycle facilities were proposed throughout the city by Wellington City Council.

However, some of these planned cycle facilities were met with community opposition, in part due to the limited public information on the demand for, and importance of, providing the cycle facilities along with how the cycle facilities were part of a wider connected and safe cycleway network.

To support the implementation of cycleways throughout Wellington and to provide the community with accessible information of the wider cycleways programme, the Wellington City Council requested that a Master Plan be developed to serve as a guide for the Council to successfully deliver new cycling infrastructure that best meets the needs of the community and the available funding resources.

The purpose of the Master Plan was to provide the strategic framework for cycle infrastructure in Wellington City at a city wide level and to identify the supporting principles for how the Council will identify and prioritise the implementation of the cycle programme. The Master Plan is a living document and will be continuously updated with the inclusion of technical appendices as the principles of the Master Plan are developed into detailed business cases for the identified corridors and initiatives.

The Master Plan details a proposed Cycleways Programme, including cycling infrastructure, safety and engagement initiatives, to be implemented over time with a focus on the first three years. It establishes the priorities to identify the cycle network, how it will connect key locations throughout the city, and ultimately how it will increase the number of people who choose to get around by cycle.

This paper details the purpose for creating the Wellington Cycleway Master Plan and describes the process undertaken to gain collective agreement on the Master Plan vision and programme for cycling in Wellington and highlights the importance of a collaborative and strategic approach for developing an integrated cycle transport network and programme 'blueprint'.

BACKGROUND INFORMATION

Cycling is part of a multi-modal Wellington transport network that aims to enable people to travel and access the CBD and key amenities easily. Investment in cycling gives Wellington residents and visitors more travel choice and, over time, will make a greater contribution to reducing congestion for those travelling by private vehicle.

Without making significant improvements to existing cycling infrastructure, the number of people cycling within Wellington has been growing steadily over the past decade. The number of people using cycling as their main means of commuting to work has increased from 2.43 percent in 2006 to 4.04 percent in 2013 (Statistics New Zealand, 2006, Statistics New Zealand, 2013).

Transport monitoring surveys carried out across the Wellington CBD have observed an increasing trend in the number of people on bikes in most corridors. As shown in Figure 1, the trend suggests that the number of people cycling will further increase with Wellington's forecast growth. However, improved cycling infrastructure is required to ensure this growth continues.

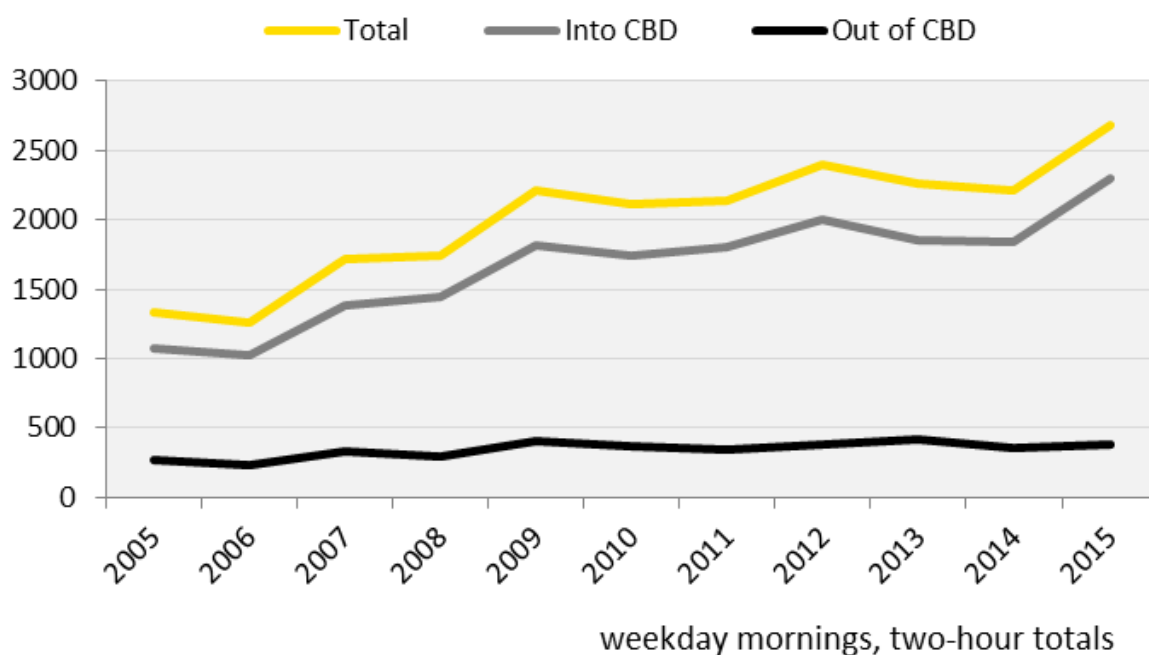


Figure 1 - Volumes of people cycling entering and leaving the central city in AM 2-hour peak (Wellington City Council, 2015c)

ISLAND BAY PARADE CYCLEWAY CASE STUDY

Prior to the development of the Cycle Master Plan, Wellington City Council developed plans for a protected cycleway in Island Bay, a southern suburb in Wellington next to Cook Strait. As shown in Figure 2, the final cycleway design consists of a protected cycleway on The Parade, a 15m wide carriageway providing a direct north-south connection through Island Bay. There is on-street parking on The Parade and the protected cycleway is estimated to remove approximately 45 car parking spaces, leaving approximately 270 spaces in the treated section.



Figure 2 – Proposed protected cycleway on The Parade, Island Bay, Wellington (Wellington City Council, 2015b)

Wellington City Council conducted two phases of public consultation and 81% of public submissions were in support of the protected cycleway option (Wellington City Council, 2014a). However, there was opposition to the protected cycleway from residents of The Parade with their primary concerns related to loss of on-street parking spaces, loss of trees and a perceived reduction in safety for other road users. In addition to these concerns, opponents of the protected cycleway argued that not many people cycle in Island Bay at present and that the proposed facility is a “cycleway to nowhere”. The cycleway project became quite divisive and served as a lightning rod for debate among the local community. Figure 3 provides an image of the community opposition to the cycleway project.

After more than a year of public debate, Wellington City Council approved the traffic resolutions in June 2015 allowing the project to proceed with the final vote coming down to a narrow victory for the protected cycleway, 8-6. The public debate regarding the Island Bay cycleway exposed a weakness in the Council’s approach to delivering cycleways, notably the lack of a comprehensive master plan to guide the delivery of new cycle infrastructure to best meet the needs of the community. As such, the Wellington City Council called for the development of a cycleway master plan that would be a blueprint for investing in cycle facilities to increase the number of people who choose to get around by cycle.



Figure 3 – Community opposition to Island Bay protected cycleway (Chapman, 2015)

INTERNATIONAL CYCLING TRENDS

Globally, cycling is gaining recognition for the large part it can play in the overall transportation network. Cycling's many benefits make it an attractive element of transport networks in cities around the world — cycling is quiet, clean, inexpensive, healthy, sustainable, space efficient and fun. Investing in cycling facilities can pay significant dividends by increasing cycling rates, reducing collisions and generally making cities more civil and enjoyable places to live.

Many cities have implemented cycle plans with clear strategic visions for the future of cycling and have experienced significant benefits as a result. A few of the more notable examples are listed below:

1. Portland Bicycle Plan for 2030 (City of Portland Bureau of Transportation, 2010)

Portland has more than 500 kilometres of cycleways and the plan aims for cycling to make up at least 25 percent of all trips three miles or less by 2030. Portland has made significant advances in attracting new riders – with cycling to work increasing from 1.1 percent in 1990 to 6.8 percent in 2011. Portland's cycle network has cost approximately \$60M to build which is less than the cost of one mile of urban motorway.

2. The Mayor's Cycle Vision for London (Greater London Authority, 2013)

Between 2000 and 2012, the number of daily trips made by cycle doubled in London to 580,000 and the aim of the mayor's cycle vision is to double the number of daily cycling trips again over the next 10 years. A key outcome of the plan is to provide a network of high capacity, connected routes. The Vision has inspired Transport for London and the boroughs to work together to develop an East West Cycle Superhighway and a comprehensive cycle network.

3. New York City Bicycling Routes Project (New York City Department of Transportation, 2009)

New York City has been transforming the city's streets from unwelcoming corridors predominantly used for vehicular traffic to public spaces that are safer and well utilised by all road users. Between 2007 and 2013, New York City constructed approximately 500 km of cycle paths and lanes, installed more than 8,000 new cycle racks, distributed more than 75,000 free cycle helmets and launched the largest cycle sharing system in North America. The strategic aim of the plan was to double the numbers of commuting cyclists between 2007 and 2012 and tripling the number by 2017. Counts completed by the city indicate that they are on-track to reach their goals as cycling has increased by 152% between 2000 and 2012.

These international examples highlight the importance of providing a strategic document that provides a clear vision and cycle network that guides future funding allocation and priorities and influences decision makers to provide cohesive facilities and a connected and safer cycle network.

WELLINGTON CYCLEWAYS PROGRAMME MASTER PLAN

The Master Plan proposes a city wide cycleway network estimated at approximately \$101 million to construct over the next 20 years, along with the provision of safety and promotional initiatives.

The Wellington Cycleways Programme Master Plan, as shown in Figure 4, was unanimously approved by the Transport and Urban Development committee of the Wellington City Council on 9 September 2015.



Figure 4 – Wellington Cycleways Programme Master Plan (Wellington City Council, 2015d)

The key to the success of the Master Plan was that the Plan and the recommended Cycleways Programme were developed by Wellington City Council Elected Members representing their communities, Council Officers and Transport Agency representatives through a series of workshops, which ensured the proposed cycle network best aligns with community needs and available funding resources.

The workshops:

- Highlighted the demand for cycling within Wellington and its main corridors into the city;
- Identified the problems of the current cycle facilities and provision;
- Highlighted the benefits of providing new and upgraded cycling facilities and a connected network to help make it safer and easier to cycle around the city;
- Developed aims and desired outcomes for the cycleways programme; and
- Identified and evaluated investment options to determine a preferred cycleways programme.

Confirming the Problem

The strategic case states that only a very small proportion of the city’s key cycle routes can currently be considered cycle-friendly. There are a number of current problems identified for cycling in Wellington city (Wellington City Council, 2015a) as included below and shown in Figures 5, 6 and 7.

Problem One: Poor cycle uptake is due to the perception that cycling is unsafe and inconvenient

Only 21 per cent of Wellingtonians consider accessibility of cycling to be ‘good’ or ‘very good’, as compared to 85 per cent of Wellingtonians who consider walking to be ‘good’ or ‘very good’.

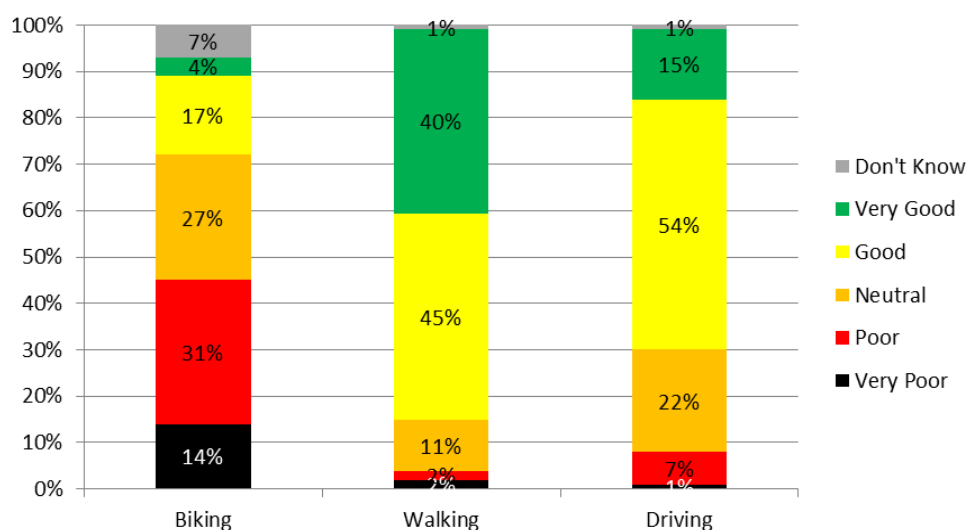


Figure 5 – Travel perceptions by mode (Greater Wellington Regional Council, 2012)

Problem Two: Unforgiving infrastructure and poor road user behaviour is resulting in significantly higher than average rates of harm to people on bikes

The number of injuries is unacceptably high with nearly 70 people being hurt in traffic related cycle crashes every year.

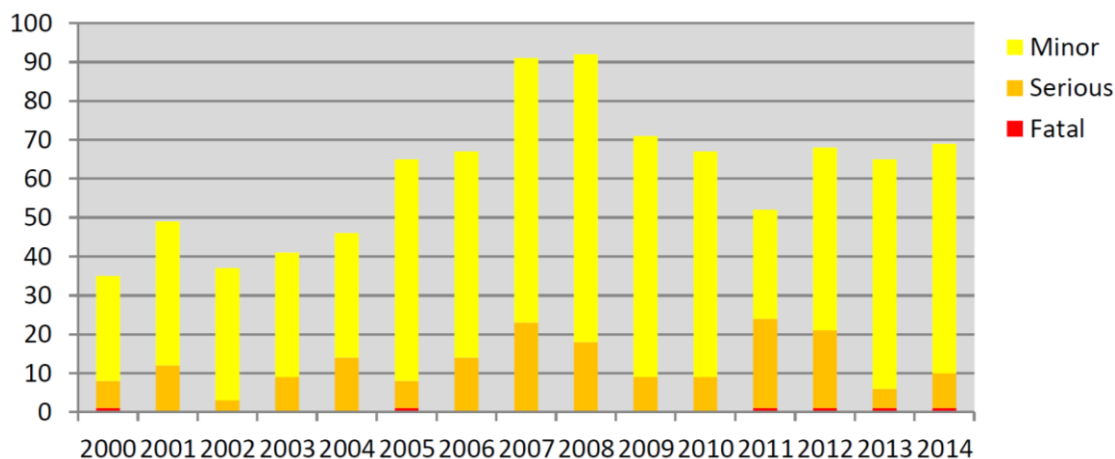


Figure 6 – Reported Cycle Crashes - Wellington City (Wellington City Council, 2015a)

Problem Three: An unappealing environment for people on bikes is reducing transport and recreation choices for Wellingtonians

Only 18 per cent of Wellingtonians consider level of service for cycling to be ‘good’ or ‘very good’

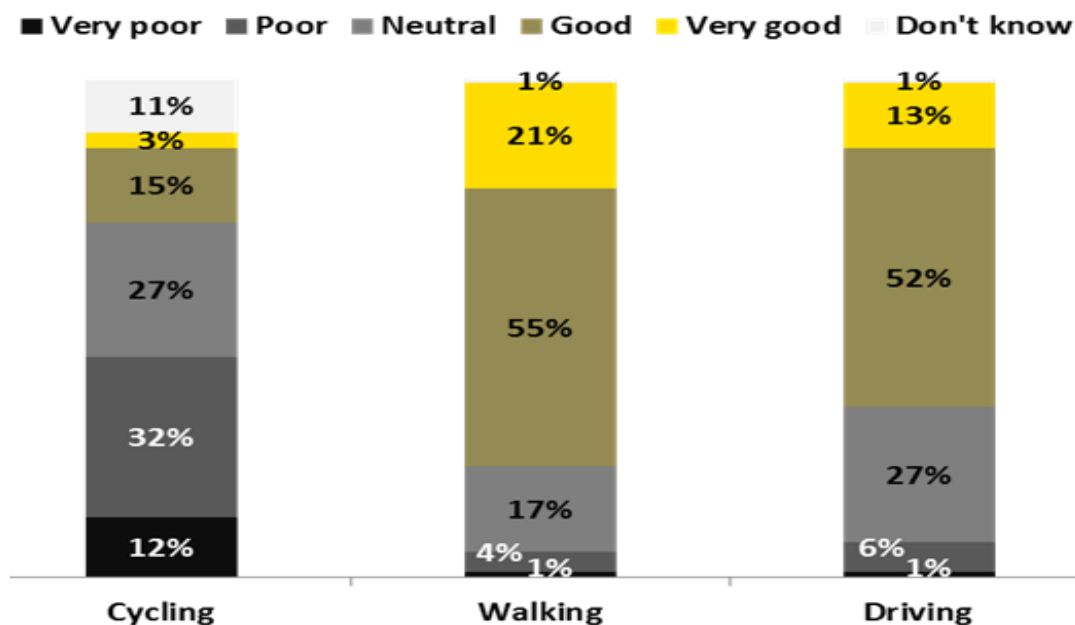


Figure 7 – Level of service by mode (Greater Wellington Regional Council, 2012)

These problems are current issues that will be exacerbated by Wellington’s forecast population growth over the next 30 years if no additional investment in cycle facilities is made.

Agreeing on Aims and Desired Outcomes

The aims and desired outcomes were developed based on existing strategies and align with the Strategic Case and the framework set out in the Council’s Urban Growth Plan. Figure 8 includes the agreed aims and desired outcomes for the Wellington Cycleways Programme. It should be noted that many of the aims and outcomes of the Wellington Cycleways Programme are not exclusively related to cycling which is fairly unusual compared to many other cycling strategies. This was not an accident, however, as it was felt that the aims and outcomes of the cycleway programme should be well integrated into Wellington’s other strategic documents and should support the city’s overall aspirations, such as becoming a more sustainable, liveable and attractive city.

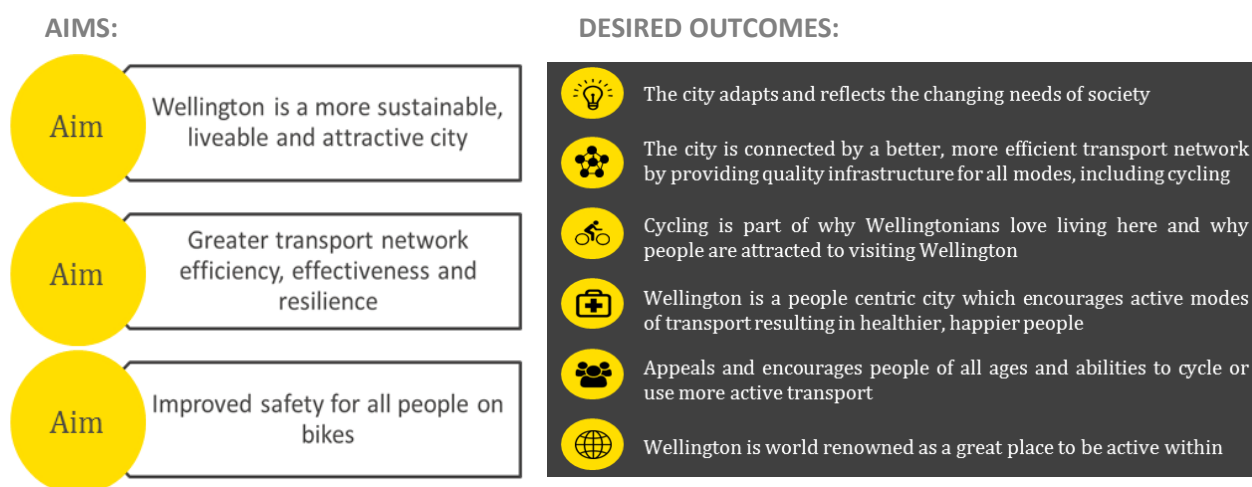


Figure 8 - Cycleways Programme aims and desired outcomes (Wellington City Council, 2015d)

Identifying Demand

Demand for cycling within Wellington City is shown in Figure 9, which highlights that while only 9 per cent have identified cycling as their transport mode, 31 per cent of the city’s population would prefer to cycle. It should be noted that these trip percentages relate to all trip types, not just commuting which was reported on earlier in this paper.

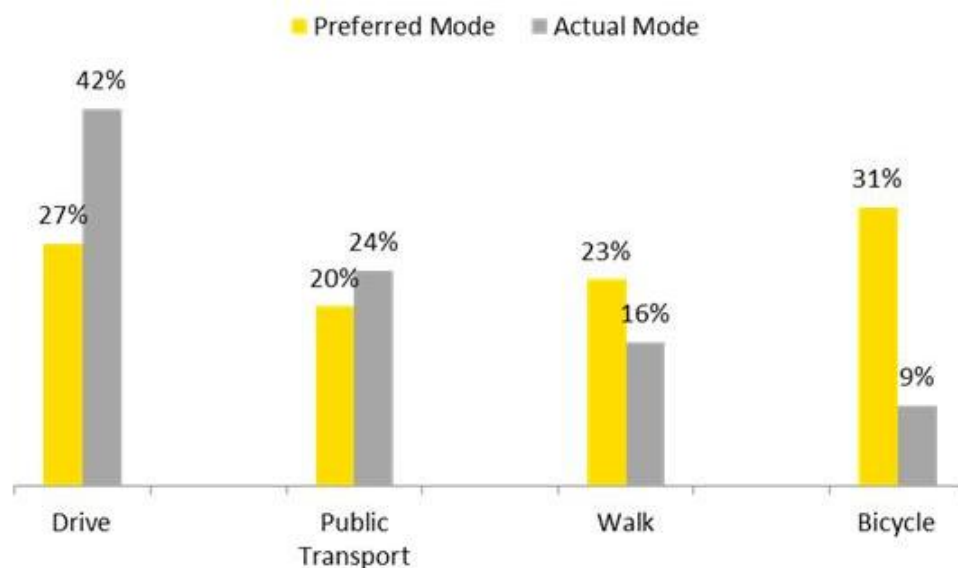


Figure 9 – Preferred mode (Wellington City Council, 2014b)

The Wellington community has shown strong support for cycling infrastructure to increase cycle usage and to decrease the number of crashes. In 2014, the City Council carried out a cycling survey which found that 76 percent of Wellingtonians over the age of 18 would consider cycling if improvements were made to provide safe, separate cycling infrastructure. This is highlighted in Figure 10. The survey results indicate that there could be as much as a three-fold increase in cycling once a safe cycleway network is in place (Wellington City Council, 2014a).

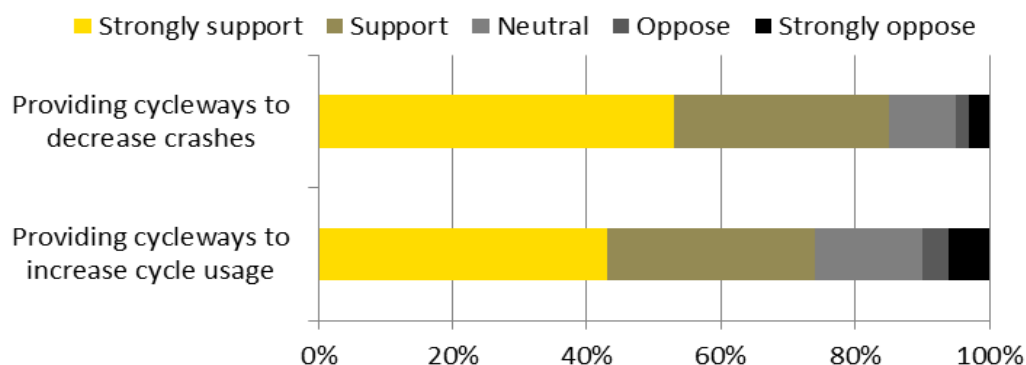


Figure 10 – Levels of support across the city (Wellington City Council, 2014b)

Developing and evaluating investment packages

Within the workshops eight cycling investment packages were evaluated, ranging from a Do Minimum option of only minor works to options investigating different cycle infrastructure provision priorities in the short, medium and long term. The packages were assessed against key investment objectives and the Transport Agency funding criteria covering Strategic Fit, Effectiveness and Economic Efficiency. This programme evaluation process is further detailed in the Wellington Cycle Network Programme Business Case, 2015.

Based upon the feedback from these workshops, a preferred cycleway package was selected that prioritises creating a connected regional cycling network to increase the number of trips completed by people on bikes in Wellington. The Master Plan also recommends educational and promotional cycle related programmes to improve cycle safety and awareness in Wellington.

Developing a connected and higher quality network

The identification of where and when the cycle routes will be provided will be further investigated through the business case process. In order to prioritise the implementation of the cycle corridors three levels of priority were established during the Master Plan development process:

- Primary corridor, high priority
- Primary corridor, medium priority
- Secondary corridor

The following principles to prioritise the corridors were established during the Master Plan development and will be applied during the business case process:

- Provide cycle facilities along main corridors to create a backbone network connecting all areas
- Provide cycle facilities where the highest level of service improvements can be gained
- Develop the network in an equitable manner so the facilities are spread throughout the City and construction impacts are minimised
- Future proof for cycle infrastructure. When other projects, e.g. road upgrades are being planned, make future provision for cycling infrastructure
- Potential to increase uptake of cycling along the corridor

In fact, the principles listed above have already shaped the development of the evaluation framework that is being utilised by Wellington to prioritise the cycling corridors for investment. Figure 11 presents the proposed implementation of the Cycleways Programme and how the programme can be delivered over time. The business case process will evaluate potential cycle routes within each of the cycle corridors using a multi criteria analysis approach.

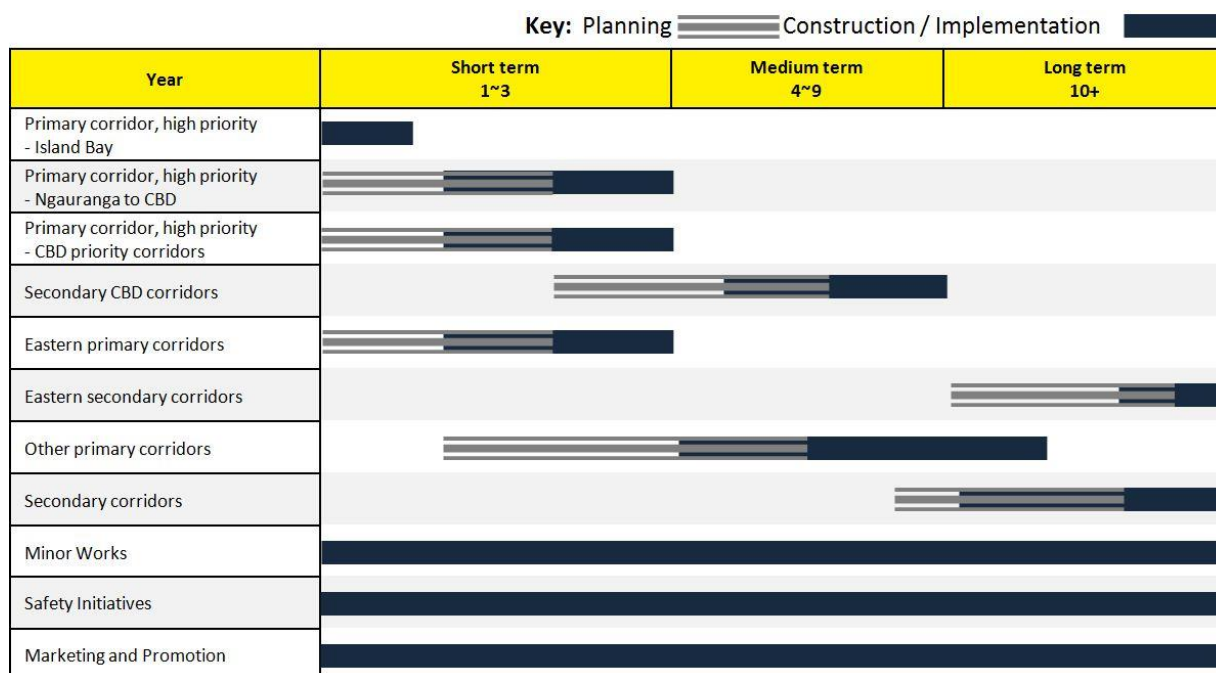


Figure 11 - Cycleways Programme Implementation

To unlock funding from the National Land Transport Fund the process followed the NZ Transport Agency business case approach and involved a parallel effort to develop the programme business case (PBC), which outlines the case for investment in the Wellington cycle network. The NZ Transport Agency has recently approved the programme business case enabling Wellington City Council to proceed with developing indicative business cases for key cycleway corridors throughout the city.

If more funding becomes available the Cycleways Programme can be accelerated.

Living document

The Master Plan is a living document and will be updated further as more detailed investigations are undertaken on the development of the Cycleways Programme. Figure 12 illustrates how the Master Plan will be regularly updated with the inclusion of technical appendices to ensure it provides up to date and comprehensive information.

Figure 12 also shows how a stakeholder working group will be created to provide input into the indicative business cases and public consultation with affected parties will provide input into the detailed business cases.

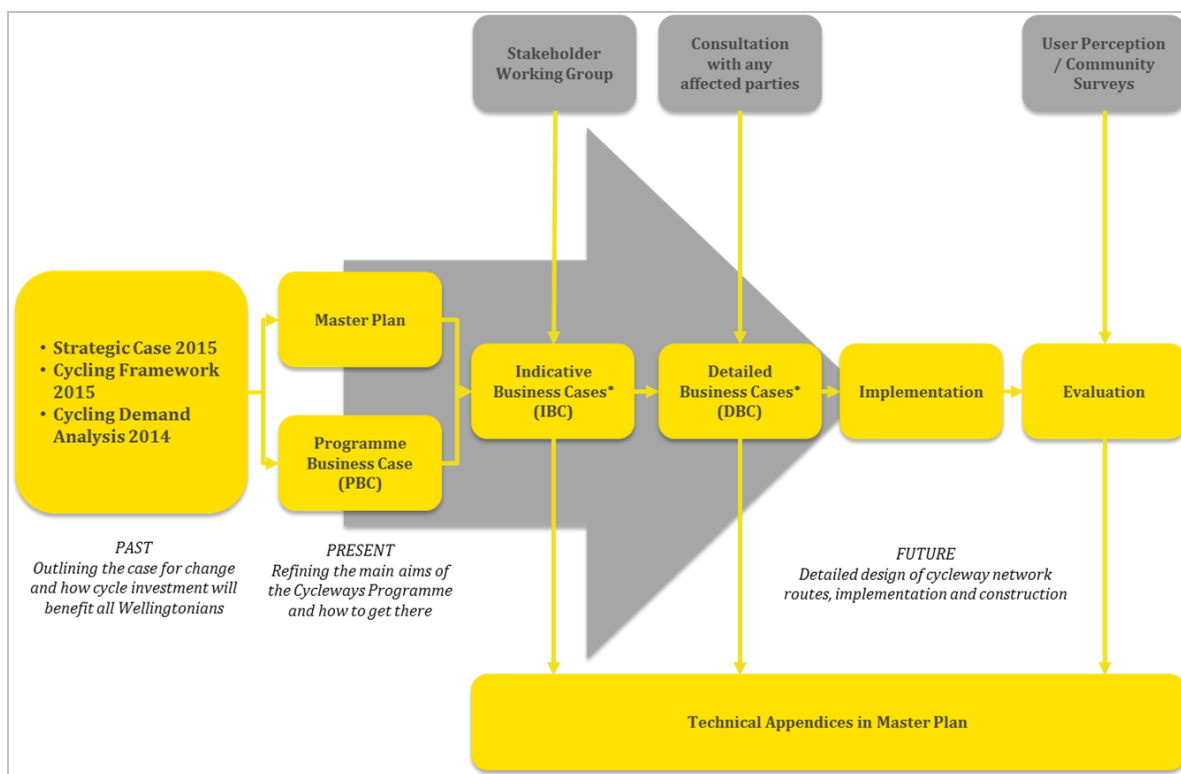


Figure 12 - Cycleways Programme next steps

PROJECT INSIGHTS

Throughout the journey, from ad hoc implementation of cycle facilities to the development of a Master Plan to guide the implementation of safe and connected cycleways, there are a few key project insights which provide valuable lessons learnt.

Firstly, and most importantly, the absence of a public facing strategic plan can lead to a lack of understanding within the community of the justification of the provision of cycle facilities. Without the clear understanding of the wider vision, cycle network and benefits the implementation of cycle facilities can easily be misunderstood as ‘cycleways to nowhere’ and result in increased opposition, as occurred in Island Bay.

Secondly, Master Plans are important strategic documents which have the potential to influence transformational change and provide communities and decision makers with the supporting information for why change is required, how it can best be achieved and how cycle corridors fit into a wider and safer comprehensive cycle network which will benefit all road users.

All communities want to understand how their proposed local cycle facilities fit into a wider regional cycle network. The planning process involves developing technical documents to support funding applications and design for construction. However, when it comes to community consultation the level of information provided often does not match the communities’ expectations and they sometimes feel as though the project is being done to them rather than for them. A Master Plan tells the story of the community benefits of developing a cycle network and provides residents with the opportunity to understand the need for a cycle facility in their area before detailed planning is undertaken.

Thirdly, the master planning process is a vital tool to develop universal agreement amongst decision makers. In order to get ‘buy-in’ to the process, decision makers must come along for the whole journey and ultimately own the outcomes of the Master Plan. To achieve this, decision makers should be involved in the development of the vision, outcomes and programme. This can be achieved through frequent workshops that include all decision makers and cover key elements of the plan. By following this process, consensus can be reached even with councillors who represent different communities’ aspirations.

Fourthly, one of the primary functions of the master plan is to provide strategic guidance and identify the principles to guide successful outcomes that align with Elected Members and community aspirations and are not overly prescriptive. If a Master Plan is overly prescriptive then it risks becoming outdated and irrelevant, may restrict unforeseen beneficial outcomes and may not achieve the function of gaining both political and community support. It is important to note that a master plan does not need to develop a detailed cycle route network plan to be successful. In fact, it is often preferable to keep the Master Plan cycle network at a high level to ensure that the most important cycle corridors are identified in the plan. Subsequent investigations can assess and evaluate the various route options to best deliver upon the strategic cycle corridors identified in the Master Plan. As noted above, it is important to have a feedback loop back to the Master Plan so that it does not become outdated as more detailed investigations are undertaken.

CONCLUSIONS

To assist in community engagement, to support future growth and mode share shift and to establish the strategic direction of a connected and safe cycle network it is vital that a Master Plan is developed. The Master Plan assists in establishing a common understanding and agreement of the vision, problem, outcomes and way forward. It also outlines the current and future need for a cycle network and provides the high level context to manage the implementation of the cycle network and funding over time.

REFERENCES

- CHAPMAN, K. 2015. Controversial Island Bay cycleway is going ahead. *The Dominion Post*.
- CITY OF PORTLAND BUREAU OF TRANSPORTATION 2010. Portland Bicycle Plan for 2030. Oregon, United States.
- GREATER LONDON AUTHORITY 2013. The Mayor's Vision for Cycling in London - An Olympic Legacy for all Londoners. London, United Kingdom.
- GREATER WELLINGTON REGIONAL COUNCIL 2012. Transport Perceptions Survey. Wellington, New Zealand.
- NEW YORK CITY DEPARTMENT OF TRANSPORTATION 2009. Sustainable Streets 2009 Progress Report. New York City, United States.
- STATISTICS NEW ZEALAND 2006. Tables about individuals in the Wellington Region - part 3b. New Zealand.
- STATISTICS NEW ZEALAND 2013. Tables about individuals in the Wellington Region - part 3b. New Zealand.
- WELLINGTON CITY COUNCIL 2014a. Cycle Improvements for Island Bay. Wellington, New Zealand.
- WELLINGTON CITY COUNCIL 2014b. Cycling Demand Analysis. Wellington, New Zealand.
- WELLINGTON CITY COUNCIL 2015a. Cycleway Programme - Strategic Case. Wellington, New Zealand.
- WELLINGTON CITY COUNCIL. 2015b. *Section 1: The Island Bay Parade Upgrade and Cycleway* [Online]. Wellington, New Zealand. [Accessed 18 November 2015].
- WELLINGTON CITY COUNCIL 2015c. Wellington City Council 2014/15 Annual Report. Wellington, New Zealand.
- WELLINGTON CITY COUNCIL 2015d. Wellington Cycleways Programme Master Plan. Wellington, New Zealand.

ACKNOWLEDGMENTS

Acknowledgement is made to the Wellington City Council Elected Members and officers who shaped and contributed to the Master Plan.