

<http://researchcommons.waikato.ac.nz/>

Research Commons at the University of Waikato

Copyright Statement:

The digital copy of this thesis is protected by the Copyright Act 1994 (New Zealand).

The thesis may be consulted by you, provided you comply with the provisions of the Act and the following conditions of use:

- Any use you make of these documents or images must be for research or private study purposes only, and you may not make them available to any other person.
- Authors control the copyright of their thesis. You will recognise the author's right to be identified as the author of the thesis, and due acknowledgement will be made to the author where appropriate.
- You will obtain the author's permission before publishing any material from the thesis.

Cycling on the Verge?
**Exploring the Place of Utility Cycling in Contemporary
New Zealand Transport Policy**

A thesis
submitted in partial fulfilment
of the requirements for the degree
of
Master of Social Sciences
at
The University of Waikato
by
MEGAN SMITH



THE UNIVERSITY OF
WAIKATO
Te Whare Wānanga o Waikato

2014

Abstract

Efforts to increase cycling as a mode of transport (utility cycling) occur at central, regional and local levels of government through a range of supportive strategies, research, and guidelines. Despite these efforts, utility cycling levels in New Zealand have remained persistently low. This thesis examines the apparent disparity between policy intent and policy result, using a discourse analytical approach. It examines how cycling is positioned in contemporary New Zealand transport policy documents, and explores whose priorities are shaping transport policy with what implications for utility cycling.

This study uses a critical discourse analysis (CDA) approach to analyse the land transport documents from across the institutions of government. The CDA approach, grounded in the work of van Dijk and Fairclough, draws on ideas from the interpretive tradition of discourse analysis, inspired by Foucault's concepts of knowledge and power. This approach reveals the position of utility cycling by exposing the framing, dominant discourses, and discursive strategies that privilege certain transport objectives and activities over others.

The findings show transport is promoted almost exclusively by central government as an activity to facilitate economic growth and efficiency, despite its potential (and actual) impacts on health and well-being, social justice, and environmental sustainability. The discursive practices of the government privilege private motor vehicle use, helping to both legitimate and maintain that privilege at all levels of government, while positioning utility cycling as a marginalised mode of transport.

This thesis contributes to scholarship on utility cycling and land transport policy in New Zealand by identifying how the discursive strategies of government control the position of utility cycling in New Zealand. This study underscores the need for a central government-led, long-term strategic vision for a genuinely integrated, multi-modal transport system, in order for the benefits of utility cycling to be fully maximised.

Acknowledgements

As any who have undertaken a body of work such as this will know, it is not achieved without the support of others. I would like to acknowledge the financial support of the Faculty of Arts and Social Sciences gained through the Masters Thesis Award 2013, and the University of Waikato with the Masters Research Scholarship 2013. Thanks also to faculty and library staff, including my subject librarian, Jillene Bydder, for their patient efforts in answering my queries.

My supervisors, Dr Patrick Barrett and Associate Professor Priya Kurian, deserve recognition and my heartfelt gratitude for their efforts in guiding me through this process. Our supervision sessions were not only academically useful, but an important source of encouragement and motivation. Particular thanks go to Patrick for helping me get started on this topic and methodology, and for your ideas, readings and time when I was tearing my hair out trying to find the way forward. To Priya, I am thankful for your expertise and guidance through the final review and edits – and for prompting a journey into the world of en dashes and em dashes!

Hours at the keyboard in the library were made easier by a steady supply of coffee and the company of fellow students who provided a welcome source of fun, motivation and empathy! In particular, thanks go to Fai, Whitney, Rae, Tui and Ashleigh – best wishes as you complete your own dissertation or thesis.

To my husband Stephen, who despite the hope that one day I will make a longer-term commitment to work that pays me for my efforts, continues to support my never-quenched thirst for knowledge. To our son Mitchell, who knows the importance of laughter, and somehow makes me laugh despite insisting I don't have a sense of humour! I am grateful for you both each and every day.

To my parents Heather and Alastair Pearce, and parents-in-law Jean and Warren Smith, thank you for your time and support around home and in providing cover during school holidays (which never align nicely deadlines

or the university recess!). Finally, to all the friends and family who provided practical support and generously asked how I was going, and in doing so learnt so much more about transport policy discourses and utility cycling than they ever thought possible. Thank you.

Preface

Consideration of the place of utility cycling in New Zealand transport policy presented itself to me as a topic as I cycled the roads of Hamilton East on my way to university. In spite of some minor hassles, I found cycling to be an enjoyable way to combine exercise with getting where I needed to go when travelling short distances. On my journeys I saw surprisingly few others joining me on two wheels. I had the impression that cycling for transport was considered a positive and yet slightly unusual thing to do; the question was, why?

Being a student of public policy, I wondered how policy had contributed to what I observed.

Table of Contents

Abstract.....	i
Acknowledgements.....	ii
Preface	iv
Table of Contents.....	v
List of Figures and Tables.....	viii
Figures.....	viii
Tables.....	viii
List of Abbreviations.....	ix
1. Introduction	12
Background	12
Setting	15
Outline of Thesis.....	16
2. Transport, Public Policy and Neoliberalism: A Review of the Literature	17
Utility Cycling	17
Cycling Discourse	19
Sustainable Transport.....	22
Transport Discourse	29
Neoliberal Discourse.....	35
Neoliberalism – The New Zealand Experiment.....	38
Deregulation: 1984-1999	38
Fifth Labour Government: 1999-2008	41
Fifth National Government: 2008-2014	43
Summary, Research Questions and Rationale	45
3. Research Methodology	47

Interpretive Policy Analysis (IPA)	47
Discourse Analysis.....	48
Argumentation and Discourse Analysis	49
Discursive Tradition	51
Storylines and Path Dependence	51
Critical Discourse Analysis (CDA)	53
CDA and Public Policy	55
CDA and Power	56
CDA and Ideology.....	58
Summary.....	59
Research Methods	60
Literature Review	60
Data Selection / Collection.....	61
Document Analysis	62
Ethical Considerations	63
Limitations and Other Considerations for this Study	63
4. Thematic Positioning of Cycling in Contemporary New Zealand	
Transport Policy	66
Transport Activity	67
Sustainable Transport.....	70
Recreational Cycling and Transport.....	75
Summary.....	78
5. Positioning of Utility Cycling by the Government in Contemporary New Zealand	
Transport Policy	81
Discursive Strategies of Power	81
Neoliberal Discourse – Setting the Scene.....	81
Genre – Replicating and Influencing.....	83
Funding – Enabling and Constraining	86
Objectives for Sustainable Transport?	91

Transport 'Objectives'	91
Sustainable or <i>sustainable</i> ?	93
Summary	94
6. Regional and Local Government Positioning of Utility Cycling in Contemporary New Zealand Transport Policy	97
Integrated Planning.....	99
Creating Space for Change – Challenging Power	102
Summary	105
7. Conclusions and Recommendations.....	107
Stimulating change	109
Central Government	110
Regional and Local Government	111
Significance	112
Policy Recommendations	112
Further research	113
References.....	115
Appendices	134
Appendix A: Documents	134
Appendix B: Results of Keyword Search & Context Hierarchy: Cycling	140
Appendix C: New Zealand Transport 'Objectives'	142
Appendix D: GPS 2011 in Transport Policy Setting	149
Appendix E: Current Walking & Cycling Strategies in Transport Policy Setting	150
Appendix F: GPS 2011 Activity Class Definitions	152
Appendix G: Highlighted Activity Class Changes	154
Appendix H: Cost of Walking & Cycling Activities.....	156

List of Figures and Tables

Figures

Figure 1: Four Essential Factors of Transportation System Sustainability	24
Figure 2: Backbone Metaphor Visually Represented	31
Figure 3: Vehicle Kilometres Travelled (VKT) by Car 1984-1998	39
Figure 4: Percentage of Travel by Car and Cycle, to Work and School ...	43
Figure 5: Trip Legs to Work and School 2008-2012	45
Figure 6: Different Approaches to Discourse Analysis	49
Figure 7: Walking and Cycling Expenditure Hamilton City	90
Figure 8: Current Walking and Cycling Strategies in Transport Policy Setting	151

Tables

Table 1: Cost of Walking and Cycling Activities for New Zealand	156
Table 2: Walking and Cycling Costs for Hamilton City	157

List of Abbreviations

ACC	Accident Compensation Corporation
CBA	Cost Benefit Analysis
CDA	Critical Discourse Analysis
DA	Discourse Analysis
EECA	Energy Efficiency and Conservation Authority
EECS	Energy Efficiency and Conservation Strategy
EST	Environmentally Sustainable Transport
FAR	Funding Assistance Rates
GDP	Gross Domestic Product
GPS Funding	Government Policy Statement on Land Transport
GPS 2008	Government policy statement on land transport funding 2009/10 –2018/19 (2008)
GPS 2009	Government policy statement on land transport funding 2009/10 –2018/19 (2009)
GPS 2011	Government policy statement on land transport funding 2012/13 –2021/22 (2011)
GPS 2015 (Draft)	Government policy statement on land transport 2015/16-2024/25: Engagement draft
HCC	Hamilton City Council
HIA	Health Impact Assessment
IPA	Interpretive Policy Analysis
LTCCP	Long Term Council Community Plan
LTMA	Land Transport Management Act 2003

LTMA 2008	Land Transport Management Act 2003, reprint as at 1 August 2008
LTMA 2010	Land Transport Management Act 2003, reprint as at 27 November 2010
LTMA 2013	Land Transport Management Act 2003, reprint as at 4 October 2013
MBIE	Ministry of Business, Innovation and Employment
MED	Ministry of Economic Development
MOT	Ministry of Transport
NIP	National Infrastructure Plan
NIU	National Infrastructure Unit
NLTF	National Land Transport Fund
NLTP	National Land Transport Programme
NLTP 2012	National Land Transport Programme 2012-15 (2012)
NLTS	National Land Transport Strategy
NPS	National Policy Statement
NRSC	National Road Safety Committee
NZ	New Zealand
NZCT	New Zealand Cycle Trail (Nga Haerenga)
NZEECS 2007	New Zealand Energy Efficiency and Conservation Strategy (2007)
NZEECS 2011	New Zealand Energy Efficiency and Conservation Strategy 2011-2016 (2011)
NZG	New Zealand Government
NZTA	New Zealand Transport Agency

NZTS 2008	New Zealand Transport Strategy 2008
OECD Development	Organisation for Economic Co-operation and Development
PDF	Portable Digital Format
RLTP	Regional Land Transport Programme
RLTP 2012	Waikato Regional Land Transport Programme 2012/13-2014/15
RLTS	Regional Land Transport Strategy
RLTS 2011	Waikato Regional Land Transport Strategy 2011-2041
RPS	Regional Policy Statement
RONs	Roads of National Significance
VKT	Vehicle Kilometres Travelled
WRC	Waikato Regional Council

1. Introduction

Efforts to increase cycling as a mode of transport (utility cycling) occur at central, regional and local levels of government through a range of supportive strategies, research, and guidelines. Despite these efforts, utility cycling levels in New Zealand (NZ) have remained persistently low. Existing scholarship on transport policy in NZ and overseas notwithstanding (for example, Cupples & Ridley, 2008; Harker, Taylor, & Knight-Lenihan, 2012; Imran & Matthews, 2011; Koorey, 2011; Low, Gleeson, & Rush, 2005; Paget-Seekins, 2013; Rissel, Bonfiglioli, Emilsen, & Smith, 2010; Schwedes, 2011; Vigar, 2000), there has been little analysis of the discourses that shape land transport policy and specifically utility cycling, and the implications of such discourses for the development of a long-term sustainable transport system.

This thesis examines the place of utility cycling within contemporary transport policy in NZ, and particularly in Hamilton, in order, first, to understand better how we have arrived at current policy settings which privilege the use of motor vehicles and, second, to provide a basis for the promotion of more sustainable transport initiatives.

Background

Recreational cycling is growing in NZ, as illustrated by the development and use of the popular Nga Haerenga, The New Zealand Cycle Trail¹. However, cycling as a regular mode of transport, for example for those travelling to work, declined between 1996-2006 (see census data, Statistics New Zealand, 2009); while 2013 shows a slight increase in numbers – but remains within .3 per cent of 2006² (Statistics New Zealand, 2014). This aligns with the NZ Household Travel Survey finding of a two decade stagnation of between two and four per cent for adults engaging in cycling on roads and footpaths on travel days (Ministry of Transport,

¹ The NZ Cycle Trail was initiated in 2009 as a joint project of the government and the Green Party of Aotearoa New Zealand. The project creates a network of recreational cycle trails which have been enjoying high patronage (www.nzcycletrail.com).

² Cycling was the chosen method of travel to work by 2.4 per cent 2001, 1.9 per cent 2006, and 2.2 per cent in 2013.

2011c). These results are despite the efforts of various organisations to increase cycling as a mode of transport (see for example, Ministry of Transport, 2008c).

At a local level, the Hamilton City Council (HCC) and the Waikato Regional Council (WRC) have made efforts to encourage cycling, including increasing the on and off road cycle way network to 101 km (Wilke, Lieswyn, & Taylor, 2012, p. 4). Both authorities have strategies addressing active transport or cycling in some way – *Active Travel Action Plan* (Hamilton City Council, 2010b) and *Walking and Cycling Strategy for the Waikato Region* (Waikato Regional Council, 2009). However, despite this commitment – and recently a small amount of positive movement – the number of cyclists counted in the annual ‘Cycle Cordon Count’ remains persistently low in comparison to volumes during the 1980s (Hamilton City Council, 2010b). This disparity between apparent policy intent and policy result is a dilemma that warrants further investigation.

Policy is influenced by compromise, negotiation and ‘struggle’ between various actors, politics, and objectives. These struggles challenge and change policy intentions – and can result in policy that is difficult to interpret, and as a result, implement (Hill & Hupe, 2009). Transport has a wide range of stakeholders seeking to influence policy direction, as demonstrated by the 719 submissions made on the Auckland Draft Public Transport Plan³ by individuals and numerous organisations (for example business, community, government agencies, education providers, advocacy groups, transport providers, professional associations, local government authorities and boards). As expected these stakeholders have their own priorities and ‘real-world problems’ (Wagenaar, 2011) in relation to transport policy. But how do we identify these priorities or motivating real-world problems? In turn, whose priorities are shaping transport policy and how do they prioritise utility cycling? Is there clarity regarding the place of utility cycling in transport policy? How do

³ Submissions to the Draft Auckland Transport Plan can be viewed at <http://www.aucklandtransport.govt.nz>.

organisational and individual transport priorities influence transport policy implementation and outcomes?

Inter-governmental relations between central and local government are another feature of this transport policy puzzle. Contributing to the complexity of the struggle described above are the different layers of responsibility and varying priorities expressed through transport policy. How robust is the apparent intent to promote sustainable transport such as utility cycling? Does implementation resourcing accompany policy rhetoric? Where does the dominant transport discourse place utility cycling at each layer of government and whose voices are expressed in policy? Does this contribute to the disparity between transport policy intent and the results achieved?

This apparent duality between intent and policy result in contemporary NZ transport policy creates a confused environment where conflict is common – both in policy settings (for example at local government, see Koorey, 2011) and on the roads⁴. Are cyclists viewed as legitimate road users in NZ?

Ultimately this topic presents us with a puzzle: why is it that the number of people travelling by bicycle remains low, by international standards and historic NZ statistics, despite an apparent intent by national and local authorities to increase utility cycling? This thesis seeks to unravel this puzzle by addressing some of the above questions through a discourse analytical approach which examines how cycling is positioned in contemporary NZ transport policy documents. A literature review provides an overview of transport, cycling, ideology, and discourse methodology. Land transport documents across the institutions of government are then analysed to uncover the framing, dominant discourses, and discursive strategies that privilege certain transport objectives and activities over others, revealing how policy currently positions utility cycling.

⁴ A www.stuff.co.nz search for reference to conflict between cyclists and motorists returned numerous articles outlining everything from a 'war' between the two groups in Wellington, to road rage type incidents.

Setting

The context of the study is the national policy setting environment of NZ, the region of Waikato and the city of Hamilton. With a population of 403,641⁵, the Waikato region is the fourth most populous in NZ. WRC is responsible for regional land transport with particular responsibility for strategic planning as it relates to road safety, land, and passenger transport. Hamilton city, population 141, 615⁶, is the main urban centre in the Waikato region, and HCC must plan for the funding and delivery of local road improvement, renewal and maintenance, as well as parking, street lighting, road safety, and walking and cycling. Both WRC and HCC participate in the National Land Transport Programme (NLTP) funding process.

In order to understand transport policy in NZ, and the place of utility cycling within it, it is important to grasp the broader regulatory context of the last three decades. Drastic changes in the legislative and regulatory framework have had a fundamental impact on the formulation and implementation of transport policies. These changes began in 1984 with the implementation of the fourth Labour-led government's market-led economic strategy. Currency devaluation (and subsequent float), tax reform (including the introduction of GST – the goods and services tax), and the deregulation of most sectors, came in with a business model approach for delivering government services (McLauchlan, 2014).

The fifth Labour-led government (1999-2008) worked within the largely neoliberal economic context of the time in a centrist, consensus-based manner to achieve social justice outcomes⁷. Despite government intent to balance economic development while addressing outcomes relating to social justice and sustainability, transport strategy and works were found to continue in a manner where the motor vehicle dominated (OECD, 2007). Since then, there has been a return to clearer neoliberal values

⁵ Source: Census 2013, Regional Summary Tables from <http://www.stats.govt.nz/>.

⁶ Source: Census 2013, Usually Resident Population Counts from <http://www.stats.govt.nz/>.

⁷ Sometimes described as the 'Third Way' - a 'modernised' social democracy response to both neoliberalism and traditional social democracy.

under the fifth National-led government (2008-current), where an economic growth agenda has driven policies (New Zealand National Party, 2011).

The manifestation of neoliberalism on the NZ regulatory context is reviewed further in chapter two.

Outline of Thesis

This thesis has been divided into seven chapters with this, chapter one, providing the background and setting of the research. Chapter two, through a literature review, explores the discourses which shape our understanding of utility cycling and its position relative to wider transport policy. The chapter includes a section on the influence of neoliberalism on decision-making and transport policy. This leads to the research questions and rationale.

Chapter three describes the field of interpretive policy analysis, identifying critical discourse analysis as the relevant methodological approach to the research. The chapter presents the research design and other methodological considerations for the study. The following three chapters are devoted to the findings and analysis of the research. Chapter four addresses the positioning of utility cycling in contemporary NZ transport policy through thematic framing. Chapters five and six present how utility cycling is positioned in the discourses of the government, and regional and local government respectively.

Conclusions and recommendations complete the thesis in chapter seven. This chapter presents the main points of the study along with policy recommendations and considerations for future research.

2. Transport, Public Policy and Neoliberalism: A Review of the Literature

Policy settings that provide for utility cycling are established within the broad context of ideas, concepts and categories through which we understand, and give effect to, transport policy. This chapter explores the ideas, concepts and categories through which our understanding of utility cycling, and its position relative to transport policy, is shaped. The chapter ends with a review of neo-liberalism as it is manifested in NZ.

Utility Cycling

Utility cycling (commuter cycling, cycling for transport) describes cycling activity that is for the purpose of transport rather than recreation, for example, active commuting. This version of cycling contributes a virtually carbon-neutral option towards sustainable transport, while at the same time increasing levels of physical activity (Fraser & Lock, 2011). This form of transport leads is of interest both to public health researchers (see for example Milne, 2012; Richards, Murdoch, Reeder, & Rosenby, 2010), and to sustainable transport advocates and scholars (for example Jay & Morad, 1997; Matthews & Imran, 2010; Parkin, 2012).

Utility cycling studies have examined a varied range of benefits for individuals and society, including, reduced sick days (Hendriksen, Simons, Garre, & Hildebrandt, 2010), improved cardiovascular health (Andersen et al., 2011), and reduced air pollution and improved public health (Lindsay, Macmillan, & Woodward, 2011). Overall, studies have shown positive effects of a modal shift to cycling, particularly for fitness and cardiovascular risk factors, although results for other health benefits were inconclusive and warrant further research (Oja et al., 2011).

In relation to sustainable transport, utility cycling gains much support as a strategy for reducing emissions, fossil fuel consumption, and land-use demand (Horton, 2006; Pucher & Buehler, 2012b). While there is little dispute as to the environmental benefits of cycling, debate persists as to its realistic ability (along with walking, and public transport) to impact on the dominance of automobility, and indeed whether that is something we

should even be aiming for (Cupples & Ridley, 2008; Garrison & Ward, 2000).

A large number of studies focus on safety aspects of utility cycling and on considerations of how to promote this mode of transport. Infrastructure – including on-road and off-road provision for cycling, specialised traffic signage and signals – is explored, through its benefit to attract cyclists, particularly women (Garrard, Rose, & Lo, 2008), and through increased safety, accessibility and appeal (Heesch & Sahlqvist, 2013; Herr, 2012; Reynolds, Harris, Teschke, Crompton, & Winters, 2009). Safety and risk are features of studies examining motivations and barriers to cycling, and are shown to be a significant concern, see, for example, helmets as a deterrent to cycling (Borissenko, 2014; Fyhri & Phillips, 2013), and the perception of cycling as unsafe, (Lawson, Pakrashi, Ghosh, & Szeto, 2013).

Other studies show that motivations to cycle for transport are complex and constantly renegotiated (Cupples & Ridley, 2008; Jones & Ogilvie, 2012), demonstrating a greater potential for policy to consider strategies that promote utility cycling in varied ways and on many occasions. In addition, addressing social views and perspectives towards cycling and cyclists, where negative views are often expressed or highlighted (Daley & Rissel, 2011), or are shown to be outside the social norm (Muggeridge, 2012), are important policy considerations.

Cycling is a form of transport accessible to large numbers of the population, allowing for improved mobility, and as a result, is one of the most socially equitable transport modes (Pucher & Buehler, 2012b). Promoting cycling with children has the immediate benefit of increasing their independence and mobility, while establishing habits of physical activity and cycling for transport. A recent NZ study (Hinckson, Garrett, & Duncan, 2011) showed that regional transport initiatives can have a positive impact on the downward trend in utility cycling of children, and, like other studies (for example see, Pucher & Buehler, 2007), notes that multi-faceted, integrated approaches to increasing cycling are most likely to succeed.

Milne puts forward a strong case for integrated, cross-sector policy considering the Rose hypothesis⁸ – that greater health gains are made through small changes across the population, than large changes in a few, “Thus in tackling the epidemic of obesity, a greater impact would arise from small alterations of exercise behaviour in the whole population [such as modal shift in regular commuting] than from large changes among the most obese” (Milne, 2012, p. 62). For others, integrated land-use and transport planning offer important opportunities to address issues, such as barriers to utility cycling, created through isolated development (Bertolini, le Clercq, & Kapoen, 2005; Jay & Morad, 1997; Koorey, 2003).

The literature demonstrates the potential for utility cycling to contribute to broad transport outcomes (for example, through delivering health, and environmental sustainability), while its ability to do so is not universally accepted. This lack of acceptance is not so much predicated on the benefits attributed to cycling, as to a questioning of the value and scope of its potential impact. Overall, this positions utility cycling as a minor (and less valued) transport activity where narrow transport aims are sought. In contrast, broad transport outcomes accommodate the multifarious applications of utility cycling, affording it a stronger, more valued position. Having explored the concept of utility cycling the following section moves to consider the discourse through which cycling is understood.

Cycling Discourse

Language influences how we frame policy problems and their solutions, and ultimately how officials and the public take action in response. The term ‘cyclist’ (and indeed ‘motorist’) can seem to be dichotomous by implying that cycling and driving a motor vehicle are mutually exclusive, when in fact most people who cycle also drive a motor vehicle (Skinner & Rosen, 2007). What do we mean when we use the term cycling or identify someone as a cyclist? Are there differences in the cycling discourse of individuals and policy actors?

⁸ The Rose hypothesis is attributed to epidemiologist Geoffrey Rose.

Terms have associated meanings for different people and in accordance with the context (Koorey, 2011). In a study of workplace cycling, individuals who commute by bicycle categorised themselves apart from ‘other cyclists’ and ‘other motorists’ – these ‘others’ were seen to exhibit dangerous road behaviour and lack understanding of the perspective of the ‘other’ mode users (Skinner & Rosen, 2007, p. 92). How transport choices form part of the identity of an individual is complex, fluid, and determinant on a variety of factors. Therefore, it follows that a notion of “fixed and obdurate” (Skinner & Rosen, 2007, p. 85) ‘barriers’ to cycling is a particularly risky assumption, just as a simplistic ‘build it [cycle lanes] and they will come’ approach alone is insufficient to promote cycling (Pucher & Buehler, 2012c).

Associations attached to the term ‘cyclist’ in NZ are influenced by the increase in recreational cycling (which includes large numbers involved in highly visible road cycling – frequently in groups), ‘fluoro lycra’ wearers, and ‘young, fast and fit urban road warriors’, with others seen as ‘tree-hugging greenies’ (Koorey, 2011, p. 2 & 6). The result is that people who cycle are not seen to be the norm. A recent New Zealand Transport Agency (NZTA) ‘share the road’ campaign⁹ aims to “...personalise and humanise people cycling so that motorists see them as real people who have a right to share the road safely. We want drivers to see the person not simply the bike” (New Zealand Transport Agency, 2014). The campaign is presenting people cycling as ‘normal’ dads, aunties, daughters, etc. and highlights people cycling during the morning commute rather than sport or recreational riders.

A British study investigating household choices in relation to local travel, identified three discourses, including ‘cycling sanctifiers’¹⁰ (Jones et al., 2012). Freedom, convenience, entitlement to use the road, efficiency, and positive effect to health and well-being, were features of the ‘cycling sanctifiers’ discourse. ‘Cycling sanctifiers’ also expressed a “strong moral procycling stance” (Jones et al., 2012, p. 1415). This expression of

⁹ The advertising campaign runs in Auckland, Hamilton, Wellington and Christchurch with possible introduction to other regions in 2014/15: www.nzta.govt.nz.

¹⁰ The two remaining categories are ‘pedestrian prioritisers’ and ‘automobile adherents’.

morality was also noted by Green, Steinbach, and Datta (2012) who found a “new moral economy of transport” (p. 285) emerging in London citizens. In the London study, ‘moral mobility’ was seen to demonstrate citizenship through an expressed knowledge of the city; commitment to self (through enhanced health and well-being, and autonomous mobility); as well as commitment to society (through environmentally friendly transport choices). The study found that discourses on responsibility were by no means universal across different population groups (Green et al., 2012).

Values and beliefs about cycling and cyclists (such as those expressed above by the public) both reflect, and are influenced by, the discourse choices of the media. The prominence given to a particular discourse by the media influences the priority it receives as a policy ‘issue’ (Rissel et al., 2010). Scholars have identified both negative and positive representations of cycling, and people who cycle, in the news media. The negative discourse is dominant, with representations of ‘cyclists’, either their death or injury, or characterisations as an odd, or out-of-control, minority (Bogdanowicz, 2004; Rissel et al., 2010). Positive representations focus on ‘cycling’ as promoting health and well-being, environmental benefits, and convenience (Rissel et al., 2010). How cycling is portrayed influences non-cyclists in their choice of whether to cycle or not in different contexts (Skinner & Rosen, 2007). For example, in Sydney, such portrayals were found to suggest a clear hierarchy of cycling contexts with recreational cycling ranked highest, followed by sport, transport/commuter, and couriers (Daley & Rissel, 2011).

Representations of cycling made by actors in the policy forming and implementing process (such as central and local government, environmentalists, and cycling advocates) were found by Cupples and Ridley (2008), to be “...presented [almost ubiquitously] as something which is cheap, easy, convenient, improves fitness and helps reduce carbon emissions, road congestion and the strain on health services”(p. 254). Their study found that a fundamentalist belief was evident in promoting cycling – something that led to a “...vision for citizenship based on the separation of the virtuous and the vicious” (Osborne and Rose, 1999, as cited in Cupples & Ridley, 2008, p. 257). The expression of a

morality discourse through transport mode choice evident in studies in the United Kingdom (Green et al., 2012; Jones et al., 2012) is clearly also echoed in NZ.

As demonstrated by the discourses explored, environmentalism, sustainability and cycling discourses frequently converge. Horton (2006) describes the bicycle as a material vehicle for environmental causes. He argues that the bicycle is a vehicle of distinction – through its visibility; opposition – to the car as a mode of transport and what it represents; and sustainability – as a way to reduce carbon emissions. Therefore “...the bicycle is both a symbol of and vehicle for the environmentalist struggle for sustainability” (Horton, 2006, p. 54).

As a user of transport one’s identity is formed in part through transport choices, which are influenced by heterogeneous factors. The terms ‘cyclist’, ‘motorist’ and ‘cycling’ represent different discourses – many of which can be polarising, and frequently contribute to the positioning of cycling as a minor consideration, both for individuals to consider as a mode of transport, and as a mode within transport policy. This suggests that the *promotion* of utility cycling needs to focus on the collective benefits of ‘cycling’ as a choice amongst other modes (avoiding a ‘moral high ground’); and *provision for* ‘cycling’, rather than the needs of ‘cyclists’ or other distinct user groups.

Sustainable Transport

As noted in the previous section, utility cycling is frequently positioned in connection to sustainable transport. This section explores the literature in regard to sustainable transport, examining why sustainability is a transport consideration in order to better understand the relative contribution of cycling.

Sustainable transport has developed out of a growth in sustainability awareness; concern about, and recognition of, some of the destructive effects of road-oriented planning; and recognition of some of the positive effects of motorised traffic reduction strategies (Schiller, Bruun, & Kenworthy, 2010). There is a diversity of definitions, both broad and narrow, for sustainability, and in turn, sustainable transport. One of the

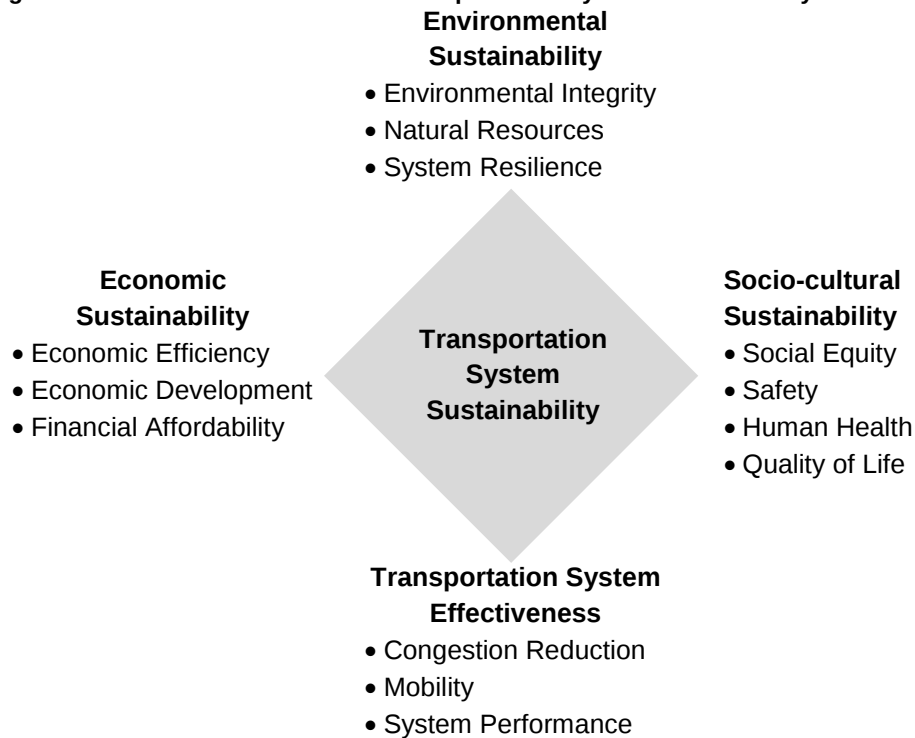
most commonly quoted definitions for sustainability comes from *Our Common Future* (World Commission on Environment and Development, 1987)¹¹: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (p. 43). Expansion of this introduces the concept of limitations “...imposed by the state of technology and social organization on the environment’s ability to meet present and future needs” (World Commission on Environment and Development, 1987, p. 43). Applying this broad definition to transportation, The University of California Berkley’s Transportation Sustainability Research Center (n.d.) defined “...transportation sustainability as meeting the needs of the present without compromising future generations; this includes the three pillars of sustainability: environment, economy, and society”.

In their comprehensive review of current evaluation initiatives for sustainability in transport systems, Jeon and Amekudzi (2005) found indicators which could be classified into four categories, see (Figure 1: Four Essential Factors of Transportation System Sustainability

), namely transportation system effectiveness, and environmental, socio-cultural, and economic, sustainability (as cited in Jeon, Amekudzi, & Guensler, 2013, p. 11). They found current efforts to address sustainability goals with transportation systems focussed on effectiveness, along with the associated effects (particularly air quality); this had an accompanying lessening of focus on economic and social impacts (Jeon et al., 2013). Others (see, for example, Haughton & McManus, 2012) have found that the efficiency focus is an aspect of the economic drive of transportation projects and systems.

¹¹ Also known as the Brundtland Report, and the Brundtland Commission, after the Chairperson, Gro Harlem Brundtland, former Prime Minister of Norway.

Figure 1: Four Essential Factors of Transportation System Sustainability



Source: Jeon, Amekudzi, & Guensler, 2013

The OECD, while acknowledging the broader requirements for social and economic sustainability, limited their focus for the ‘Environmentally Sustainable Transport (EST) Project’ to a solely environment focused definition:

An environmentally sustainable transport system is one that does not endanger public health or ecosystems and meets needs for access consistent with (a) use of renewable resources at below their rates of regeneration, and (b) use of non-renewable resources at below the rates of development of renewable substitutes.
(OECD, 2002a, p. 16)

So, a narrow definition of sustainable transport can be defined as describing a transport system which is *environmentally or ecologically* sustainable (Harker et al., 2012; Low, Gleeson, & Rush, 2003). It thus focuses on a transport system which reduces the environmental impact of transport choices. The environmental issues identified within the literature are primarily related to greenhouse gas emissions (Ministry of Transport, 2007), and the effective use of resources and energy (Schwedes, 2011). Schiller et al. (2010) further elaborate by stating that in addition to greenhouse gases and resource depletion, a transport system that is auto-dependent may have to deal with a range of environmental issues from

noise pollution and photochemical smog to acid rain (Newman & Kenworthy, 1999, in Schiller et al., 2010).

The environmental impact of transport choices are of high interest to many governments, with the integration of environmental concerns into transport policy a focus of international attention¹². In NZ the last significant work relating to sustainable transport was made by the fifth Labour government through their discussion paper 'Sustainable Transport' (Ministry of Transport, 2007). Since that time a wide range of research under categories of sustainable transport or environmental effect¹³ has been undertaken by the NZTA. Within government policy documents and legislation, however, there has been a move away from overt reference to sustainability goals since 2009. The Harker et al. (2012) study examining recent GPS regarding land transport funding, found in their analysis that "...perfunctory consideration and negligible advancement of sustainability objectives [was given] by the government in the context of the transport sector"(pp. 350-351). Indeed, the term 'sustainable' no longer forms part of the purpose of the Act, nor the preparation of the GPS on land transport within the *Land Transport Management Act 2003* (Reprint as at 2013, 4 October)¹⁴.

The 2013 report on climate change from the Prime Minister's Science Advisory Committee baldly states:

In 1990 the contribution to New Zealand's gross emissions from methane and CO₂ were nearly equal but an increase most notably from road transport has led to CO₂ overtaking methane slightly as New Zealand's main contributor to greenhouse gas emissions. New Zealand has a road fuel consumption per capita that is more than 1.5 times that of the Euro area, and significantly above the OECD average. In 2011, transport was responsible for 19% of all New Zealand's greenhouse gas emissions. (New Zealand Office of the Prime Minister's Science Advisory Committee, 2013, p. 18)

¹² The OECD report *Indicators for the Integration of Environmental Concerns into Transport Policies* was published in 1999.

¹³ This research can be found at [www.nzta.govt.nz/resources >research & reports>](http://www.nzta.govt.nz/resources/research-reports) 'Sustainable land transport' and 'Environmental effects'.

¹⁴ Amendments led to five versions of the *Land Transport Management Act 2003* in 2013.

While the significance of greenhouse gas emissions from road transport is acknowledged by the Ministry for the Environment (2013), it features little within transport policy, as highlighted previously (Harker et al., 2012). The NZ government has recently committed to a new target for emission reduction¹⁵, and while transport research is frequently focused on assessing the impact of transport modes and the positive potential of cycling (see, for example, Lindsay et al., 2011, for their study on the benefits of even a minimal modal shift to cycling for short journeys), the majority of work by the Ministry of Transport regarding emissions is focussed on improving the efficiency of vehicles. This improvement is to occur largely through a drive for a younger fleet and more energy efficient engines meeting higher emissions standards¹⁶.

A solely 'tailpipe' solution focus, however, is thought to be inadequate for reducing the environmental impact of emissions, and policy solutions will need to include the active management of motor vehicle transport volumes (Macbeth, 2004; Schiller et al., 2010). A demand-management approach to "...transport planning [is] centred on managing for demand for road travel rather than catering for it" (Vigar, 2000, p. 19) through increased road capacity. This allows for reduced motor-vehicle use within the range of solutions for reducing emissions. Demand-management has developed in counterpoint to 'predict and provide' (Goulden, Ryley, & Dingwall, 2014) approaches and is seen as one of the key tools for moving toward a sustainable transport system. Reducing motorised traffic can occur by "...optimising and reducing traffic flows on the road network [and] changing travel behaviour, influencing the choices people make on how, when and where they travel" (Hamilton City Council, 2010d, p. 1).

Transport strategies are developed at both national and local levels in NZ, and these include reference to sustainability goals and / or cycling-focussed guidelines (Hamilton City Council, 2010a). Koorey, Macbeth, &

¹⁵ Having withdrawn from the Kyoto Agreement New Zealand recently set new binding targets (to reduce emissions to 5 per cent below 1990 levels by 2020 under the UN Framework Convention. See <http://www.beehive.govt.nz/release/new-zealand-commits-2020-climate-change-target>).

¹⁶ The Vehicle Exhaust Emissions Rule 2007 – requires higher emissions standards for all vehicles (used and new) entering the New Zealand fleet.

Wilke (2005) review the movement towards best practice guidelines for planners, engineers and others working in this domain. Developments have resulted in national guidelines for planning networks (Land Transport Safety Authority, 2004), designing facilities (Transit New Zealand, 2008), and preparing strategies (Macbeth, Boulter, & Ryan, 2005). The importance of strategic district plans has long been acknowledged (Jay & Morad, 1997), and Henning, Muruvan, Feng, and Dunn (2011) seek to enhance that usefulness with the contribution of a benchmarking process for the NZ transport sector against sustainability and environmental targets.

There is frequently a tension between transportation objectives, such as those for efficient access (for many individuals this is by car), and those for sustainable transport options (such as public transport and cycling) (Jay & Morad, 1997). Further tension exists from the certain tractability of sustainability to accommodate a myriad of doctrines. Baeten (2000) posits that the concept of sustainable transport is so expansive, and carries with it such comprehensive global political acceptance, that it allows multiple proponents to utilise it to further their own doctrines, from the neoliberal economists to the ecologists. He further argues that

...the orthodox sustainable transport vision actually leads to the further empowerment of technocratic and elitist groups in society while simultaneously contributing to the further disempowerment of those marginalized social groups who were already bearing the burden of the environmental problems resulting from a troubled transport system. (Baeten, 2000, p. 70)

However, the potential for sustainable transport policies to address multiple objectives is believed to be possible through a comprehensive, integrated policy approach (Pucher & Buehler, 2012c). By addressing the economic and social aspects of sustainability, individuals are not constrained by discourses of environmental conservation (of which there are many expressions, such as, recycling, not eating meat, reduced consumerism, to name but a few) in the choice to cycle for transport. The development of heterogeneous approaches to engaging individuals about sustainable transport choices is of critical importance. Research has identified personal travel as the most immediately modifiable, with

indications that “...consumer shopping trips to purchase a pair of jeans may be as significant as the greenhouse gas (GHG) emission per item of the entire supply chain” (Browne, Rizet, Anderson, Allen, & Keita (2005), as cited in Cox, 2010).

Transport is a consistently used indicator in liveability indexes¹⁷ (Wojtarowicz, 2013). Transport features from an environmental point of view (sustainability, emissions, and noise), efficiency of movement (congestion), and the impact on the physical environment (green spaces, roading – including visible and audible air and noise pollution). The place of transport as a liveability indicator signposts the social impact of transport on our lives.

The social aspects of sustainable transportation are being examined through such concepts as accessibility, i.e., “...the ability to reach desired goods and services and activities” (Cox, 2010, p. 9); mobility or “...the means by which... goods, service and activities can be reached, the physical act of travel” (Litman, 2008, as cited in Cox, 2010, p. 10); and through the lens of social equity, examining “...the equitable distribution of impacts (benefits, disadvantages and costs)” (Litman & Brenman, 2012, p. 3). As has been expressed previously, transport planning is frequently focussed on meeting economic objectives (see, for example, Paget-Seekins, 2013), and where social equity objectives exist, methodologies for examining their impacts aren’t standardised (Litman & Brenman, 2012). However, a growing body of literature is concerned with a variety of social impacts, such as the burdens of mobility and our responses to mobility constraints (Elliott & Urry, 2010); the role of technology and how the interface of communications and transportation is influencing our lives, now and in the future (Garrison & Ward, 2000); the social unsustainability of automobility through impacts such as cost and social exclusion (Cox, 2010); and the combined impact of housing and transport policies which

¹⁷ See examples: Monocle magazine, (monocle.com) ‘Most Liveable Cities Index’; The Economist Intelligence Unit, (www.eiu.com) ‘Global Liveability Ranking’; Mercer, (mercer.com) ‘Quality of Living Rankings’.

create isolated neighbourhoods which bear the brunt of damaging social and environmental outcomes (Power, 2012).

This review of the scholarly literature on sustainable transport, finds that while sustainability mostly relates to transport in recognition of its environmentally damaging side-effects, it can also be viewed in a much broader way, examining economic and social considerations. Emissions monitoring and liveability indexes reveal in different ways the enormous impact transport has on our lives. Despite tensions between transport objectives, an integrated policy approach is seen as the most effective for addressing sustainable transport – strategies which include utility cycling, demand-management, energy efficient engines, and alternative fuels. The literature positions cycling as an effective contributor to sustainable transport objectives, but cautions against promoting it solely from an environmental perspective.

Transport Discourse

The ideas, concepts and categories that help us understand, and give effect to, transport policy, form the settings within which utility cycling is grounded. These might be thought of as transport policy discourses, and such discourses are recognised as influencing the way utility cycling is positioned alongside the use of motor vehicles and other transport options (Green et al., 2012; Paget-Seekins, 2013; Rissel et al., 2010; Schwedes, 2011). Transport discourses are informed by the dominant ideologies of individuals and institutions, in turn shaping policy formation, as found in a review of Auckland transport policy (Matthews & Imran, 2010). Exploration of the discourses used by individual actors and institutions in developing and promoting transport policy highlighted that how cycling strategies are presented ('added-on' or integrated) spoke volumes about how important those strategies are to the policy-making institutions (Koorey, 2011).

The environmental transport indicator utilised in NZ, and widely internationally, is vehicle kilometres travelled (VKT). VKT is used as an indicator for the impact (through, for example, emissions, noise pollution, contaminated road run-off, and waste such as used oil, tyres, and batteries) of all forms of road transport on the environment. The last VKT

report (Ministry for the Environment, 2009) indicated many of these environmental pressures were trending the same or getting worse, with unfavourable international comparisons. Balancing concerns about the environmental impact of transport with economic drivers leads to projects such as the Environmentally Sustainable Transport (EST) Project, which noted that preliminary work on the impact of moving to EST are positive: “economies will remain robust, energy security will be increased, society’s costs will be lower, and there could be significant social advantages” (OECD, 2002b, p. 11).

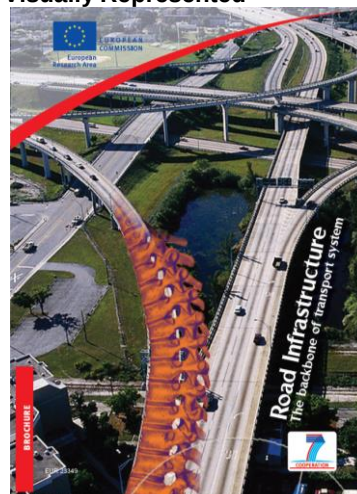
The relationship between transport and economic activity is another measurement using the VKT indicator (VKT per unit of GDP, gross domestic product). Regarding this relationship, the Ministry for the Environment (2009) noted “...over the past few years [between 2001-2007] there is evidence of ‘decoupling’ of the growth in VKT from economic growth (i.e., the economy grew at a faster rate than VKT)” (p. 3). However, this ‘de-coupling’ was thought to be short-lived due to recessionary pressures, and that VKT would resume historic upward trends due to population and economic growth, thus reconnecting the transport / economy link.

Debate regarding this potential link in transport infrastructure investment and economic growth and productivity has been a feature of transport literature for many years. This scholarship has explored, for example, the role particular political, economic, and investment conditions have on transport investment-led economic development (Banister & Berechman, 2001); the causal mechanisms linking transport and economic growth through general equilibrium effect analyses (Lakshmanan, 2011); and the complexity of linkages between transport infrastructure investment and economic production along with potential equations to investigate specific impacts from investment (Talley, 1996). Contributions from the OECD (see for example, International Transport Forum, 2013) show a continued confidence that transport infrastructure investment is correlated to economic growth and development, a correlation that is strongest in economies where income levels are low.

Other connections between transport and the economy come through the use of metaphor, in particular, the imagery of transport as the ‘backbone of the economy’. A metaphor allows us to apply our understanding of one thing to another, where, as van Dijk suggests, there is a “...relation of (partial) similarity” (2011, p. 123). Metaphors sourced from the human body domain are frequently utilised in regard to abstract complex systems (such as transportation and the economy), and are primarily concerned with issues of function, stability, development and condition (Kövecses & Benczes, 2010). Invoking the ‘backbone’ metaphor establishes something as important for stability and strong structural effectiveness, just as the backbone (or spine) is to keeping a human upright and stable by providing strong structural support. The OECD’s intergovernmental International Transport Forum¹⁸ declared that transport infrastructure “...is the backbone of national economies, providing connections for people and goods, access to jobs and services, and enabling trade and economic growth” (2013, p. 2).

The backbone metaphor in transport is in widespread use (see, for example, European Commission, 2008; Fayyaz, 2013; International Road Transport Union, 2014), and includes visual representation such as that shown in Figure 2.

Figure 2: Backbone Metaphor Visually Represented



(European Commission, 2008)

¹⁸ New Zealand is one of 54 member countries and takes on Presidency of the Forum for 2015.

Further developing the human body metaphor in transport are images of circulation and congestion, where circulation aids a "...positive notion of movement where motion is regarded as intrinsically healthy and a symbol of vitality... congestion is usually considered a problem to overcome... a disease to cure" (Galvis & Singh, 2012, pp. 253-254). In addition, congestion is not efficient, as the increased density of vehicles leads to increasingly slow speeds (Stopher, 2004). These images suggest a need to deal with traffic congestion, which in turn supports building more infrastructure, this being to many people "the most intuitively obvious response..." (Downs, 2003, p. 101). Studies suggest there is a need to consider road building as a congestion solution carefully, as increased capacity is not likely to deliver sustained (or any) reduction in congestion (Downs, 2003; Duranton & Turner, 2011; Stopher, 2004).

While congestion is a concern for an efficient transport system, it is also a concern from a sustainability perspective due to the negative impacts of increased emissions and fuel use. Attempts to reconcile sustainable development (the prioritises care for the environment) with economic growth (the focussing driver of most western countries) pose a major challenge for the transport sector. It is noted that a disconnect between policy goals and reality within the European Union potentially stems from tensions between sustainability outcomes and socio-economic needs (such as, access to employment and services) (Button & Nijkamp, 1997). An alternative view considers the limitations or constraints of natural resources, as suggested by sustainable development, not to be absolute but rather, existing until "...technology and social organization can be both managed and improved to make way for a new era of economic growth" (World Commission on Environment and Development, 1987, p. 8). This leads Schwedes (2011) to argue that within the European Union "...sustainability discourse equalized sustainable development with sustainable growth, [and] the new scientific transport discourse put a sustainable transport development on the same level with sustainable transport growth" (p. 15).

Technology in transport discourse is also explored elsewhere. For example, Garrison and Ward (2000), envisage a transportation system for

the future based on technological solutions. They firmly believe that the future of transport is *not* in options such as public transport, cycling, and walking, but in technology – technology which has already developed more efficient motorised options (such as through improved aerodynamics, fuel-efficient high-compression engines, lighter and stronger vehicle construction materials) – and if we wait, the solution will come, as it has in the past (Garrison & Ward, 2000). This stance is echoed, in a broader manner, by Stopher, who suggests that future transport policy must focus on encouraging and implementing technological advances in sustainable automobiles, along with a range of other strategies, including developing niche public transport markets, improved integration with land-use planning, and encouraging flexible work hours to diffuse traffic peak times (Stopher, 2004).

Approaching transport from another direction, the discourses used by cycling advocates was found by Cupples and Ridley (2008) to frequently focus on simplistic understandings of cycling that do not acknowledge either the embodied dimensions of cycling (that it is a physical human activity, creating tiredness, and sweat) or the appropriateness of cycling due to cultural beliefs, responsibilities of family and/or work, logistics, physical skill or mobility. At the same time, cycling advocates often do not acknowledge the validity of choosing the car as a mode of transport for reasons of individualism, independence, mobility, pleasure and so on (Featherstone, 2004, as cited in Cupples & Ridley, 2008, p. 258).

Yet another disjuncture is the tension that exists between what transport users support in the way of sustainable transport and their personal choice to travel by car (Garrison & Ward, 2000; Jay & Morad, 1997; Vigar, 2000), much in the same way as Oscar Wilde's character Dorian Gray would famously '...do anything in the world, except take exercise, get up early, or be respectable' to get back his youth¹⁹. Milne (2012), taking a public health perspective, suggests that the benefits of current individual transport choices (that being for private motor vehicle travel) accrue directly to the individuals and their households "...whereas the same

¹⁹ From the novel *The Picture of Dorian Gray* by Oscar Wilde 1890/1.

individuals and household only bear a tiny part of collective responsibility for adverse effects – most of which apply to others, about whom they care less” (p. 65). These tensions and contradictions present a challenge to policy makers and advocates of sustainable, active transport initiatives. How should transport policy balance private interests (currently focussed on motor vehicle use) and public good (such as health, social and environmental societal benefits)? Not without purposeful intervention, which allows the options which generate long-term societal benefits, to also be preferable at the level of individual choice (Milne, 2012).

An integrated approach to transport planning, as advocated by many (see for example, Pucher, Dill, & Handy, 2010; Schiller et al., 2010), is at times frustrated by competition between modes of transport. This competition is highlighted by the discourses that accompany distinctive categories of users (for example ‘cyclist’ and ‘motorist’), which are perpetuated by the media and public in negative ways (see, Rissel et al., 2010, for example, on the negative representations of ‘cyclists’). Cupples and Ridley (2008) explore how an overly simplistic, representational discourse (particularly as it relates to cycling) illustrates a divisiveness and ‘either / or’ type of competitiveness between modes. They suggest that rather than the environmental sustainability and health & well-being messages, an increased focus on the “...affective dimensions of cycling might highlight its pleasures and its deviance, its sensations and delights as well as its obvious downsides” (Cupples & Ridley, 2008, p. 262), thus being less likely to alienate other mode users as ‘environmentally irresponsible non-cyclists’. A sustainable lifestyle incorporates many more elements and choices than transport alone. Indeed, as an example, cutting meat and dairy consumption is reported to have significant potential for reducing global emissions (Center for Biological Diversity, 2014).

How transportation decisions can be influenced by discourse is illustrated in a study of users, actors and discourse in Atlanta, Georgia (Paget-Seekins, 2013). The study identifies three discourses defining transportation in Atlanta: road congestion, lack of choice (through lack of alternative public transport routes and infrastructure for cycling and walking), and equity of access (to address problems created by historical

urban planning approaches and lack of transport investment in areas of low income and households of people of colour). Transportation users and political actors use these discourses to frame the potential policy solutions and advocate for resource allocation to suit. The principal actor was able to restrict debate in a public referendum by prioritising the discourses it supported (congestion and choice) and omitting what it didn't (equity / access). Analysis of responses to the referendum suggests that the acceptance of a particular discourse depends on the mobility group (for example, choice or forced or potential users of public transport / non-motorised / car) the individual belongs to (Paget-Seekins, 2013).

This section examined a wide range of ideas, concepts and categories that constitute transport policy discourse. Economic values form a strong thread in the discourse, through indicators (VKT), infrastructure and metaphors. These privilege roading and motorised modes as critical to achieving transport outcomes, which are also economic outcomes. Intersected between the economic imperative and environmental sustainability is a call to reduce congestion – thereby improving efficiency and reducing emissions. However, the solutions presented are focussed on technological advances and more roads (although the benefit of further roading is debated), once again marginalising the benefits offered by utility cycling.

The literature also explored the tensions in how cycling is positioned within transport, rarely taking into account the embodied dimensions or appropriateness of cycling for individuals. This influences the acceptability of cycling as a transport choice – one where there are recognised benefits, but not one people are willing to choose for themselves. An integrated approach to planning was advocated, along with purposeful interventions to create truly multi-modal transport systems – where cycling was a genuine option.

Neoliberal Discourse

The positioning of utility cycling in contemporary transport policy requires considering the relation between discourse and power. Ideology is closely tied to this exploration through its functions of legitimisation, defence, and

control (van Dijk, 1998). While sustainable transport has positioned cycling as an integral part of a sustainable transport system, the previous section has shown how general transport discourses have positioned economic concerns (such as economic efficiency) as predominant – a position which marginalises the potential contribution of utility cycling. This section explores neoliberal discourse as a legitimating ideology for the prioritisation of efficiency-oriented transport objectives.

There is no consensus on the conceptual definition of neoliberalism, although there is such familiarity with the term that it tends to be “implicitly and commonsensically” defined (Peck, 2004, p. 393). Associated (particularly since the late 1970’s) with the work of economists Friedman²⁰ and Hayek²¹, neoliberalism is most notably recognised by its belief that “open, competitive and unregulated markets, liberated from state interference and the actions of social collectivities, represent the optimal mechanism for socioeconomic development” (Peck, Theodore, & Brenner, 2009, p. 50).

It is through ‘neoliberally defined’ projects that the discourse of neoliberalism exerts its power. It is the “sheer power” (Dryzek, 2013, p. 122) of the “beguiling” (McCarthy & Prudham, 2004, p. 276) neoliberal discourse which contributes a large part to the hegemony of neoliberalism (Fairclough, 2005). The ideological expressions of neoliberal discourse: those of decentralisation, personal freedom, efficiency and the cost-effectiveness of the private sector (Harvey, 2007), are found as much within transport projects as anywhere else.

The equivocal nature of a neoliberal approach to a transport project can also appear to afford space to environmental and social concerns in the planning and promotion of solutions. In the case of the Sydney cross city tunnel, for example, Haughton and McManus (2012) found that the environmental and social objectives promoted in part as justification for the project, were most vulnerable to being weakened or removed once the

²⁰ Milton Friedman, US economist and economic advisor to Ronald Reagan, recipient of the 1976 Nobel Memorial Prize in Economic Sciences.

²¹ Friedrich Hayek, Austrian then British economist, shared recipient of the 1974 Nobel Memorial Prize in Economic Sciences.

work actually began. This is evidence of the use of environmental discourses as a legitimisation strategy in support of neoliberal policies (Brand, 2007).

Beyond the legitimising role of sustainability discourses for specific projects, action is frequently threatened through the overriding neoliberal discourses of economic imperative, and individual choice and responsibility. Vigar (2000) notes that moves to restrict private car usage (thus creating an environment more supportive of walking, cycling, and public transport), were unlikely to occur in this environment due to the ideological opposition to state intervention in personal matters; in addition was the economic benefit the road network was perceived to offer. The actions to curb the negative social and environmental impacts of "...capitalist productions are "rolled" back, attacked via discourses of national, regional, and urban economic competitiveness..." (McCarthy & Prudham, 2004, p. 276).

The economic link to transport is an early one. Low and Gleeson (2001) tell of the work of the Russian political economist Baron H. F. von Storch²², cited in Marx's *Grundrisse*, that related how transport contributes to cost of goods and therefore how costly delays are to the economy. Congestion and the impact of delays on the economy are among reasons given for the continued capital investment in the road network in current policy (Ministry of Transport, 2011a), despite widespread debate as to this effect (see critiques from, for example, Duranton & Turner, 2011; Sweet, 2011). Utilisation of mechanisms such as private-public partnerships, for funding and progressing transport projects are a feature of neoliberalism and represent a way of "...introducing market discipline to the public sector..." (Haughton & McManus, 2012, p. 92).

While there are several macro-economic models, much of the legitimisation for these approaches to transport comes through supporting cost benefit analysis (CBA) (Lakshmanan, 2011). CBA is a widely applied tool through which all known costs and benefits are quantified (through measurement

²² Author of *Cours d'économie politique* (1823).

and monetary valuation) and evaluated against other options. It remains popular despite there being a number of problems identified with the method, including problems of valuation, commensurability, and intrinsic value (Wolff & Haubrich, 2006). The problems of CBA are in turn problematic for values such as sustainability, access, and mobility, exposing weaknesses in the process which can lead to the domination of economic efficiency and development. Where the economic imperative becomes so dominant, a charge of 'economism' is levelled. Economism is where policy makers have over-emphasised and over-estimated economic efficiency as the policy objective, and in doing so reduced the importance of other values such as sustainability or equality (Wolff & Haubrich, 2006).

The literature explored how neoliberalism provides legitimisation and support for an economic imperative in transport policy through the privileging of such mechanisms as CBA. This approach contributes to a transport environment that is supportive of, and privileges objectives of economic efficiency and development, which in turn privilege roads and motorised transport. This ultimately comes at the expense of sustainability and alternative modes of transport such as cycling.

Neoliberalism – The New Zealand Experiment

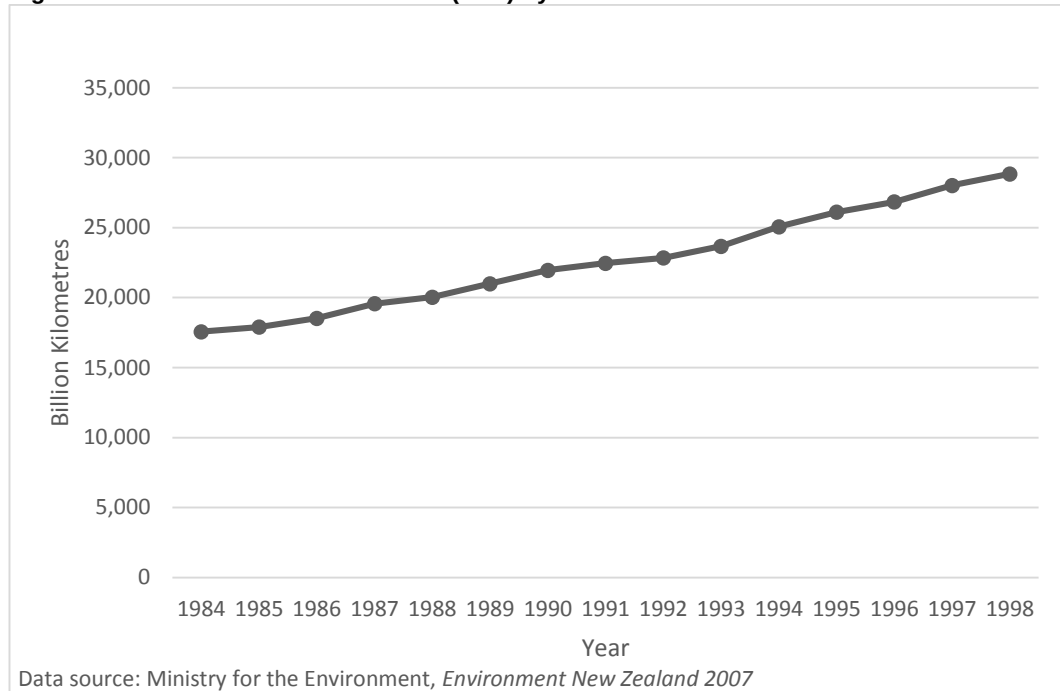
This section explores how neoliberalism was manifested in the NZ transport context through three distinct periods, from 1984 through to 2014.

Deregulation: 1984-1999

The 1984 election of the Fourth Labour Government led to the deregulation of most sectors of the economy as a business model approach for delivering government services was pursued (McLauchlan, 2014). The elimination of subsidies from most areas of business, coupled with the removal of various import restrictions, gave the public access to significantly cheaper cars ("Import flood set to sink car dealers," 1997). Large volumes of second-hand cars imported from Japan became available, along with cheaper new cars; and already high levels of motor

vehicle ownership continued to increase²³ along with road kilometres travelled (see Figure 3). Factors such as these placed pressure on existing transport infrastructure and impacted negatively on alternative modes of transport (Bollard & Pickford, 1998). With the spectre of ‘carless days’²⁴ seemingly far behind them, the *New Zealand Travel Survey* (Land Transport Safety Authority, 2000) showed the population decreased their on-road cycling 19 per cent between 1989/90 and 1997/98.

Figure 3: Vehicle Kilometres Travelled (VKT) by Car 1984-1998



Alongside these developments, the steady improvement of the road network, along with improved access to motor vehicles and air travel, a somewhat ironic mix of dependence and independence, and centralisation and decentralisation developed (Watson, 1996). Individuals had increasing personal independence with their access to fast and efficient private transport, allowing them to live further away from their places of work and study – a “residential dispersal” (Watson, 1996, p. 254) that influenced a sprawling growth in towns and cities.

²³ In 1996, motor vehicle ownership was approximately 64 per 100 people, up from 56 per 100 in 1980. Source: www.mfe.govt.nz ‘Environment New Zealand 2007’.

²⁴ In response to interruptions in oil supply and price rises: July 1979 – May 1980 private motorists had to nominate a day of the week on which to ‘go carless’ <http://www.nzhistory.net.nz/carless-days>.

The increase in access to private motor vehicle transport contributed towards the development of centralised shopping around supermarkets and retailing centres with large car parks (Watson, 1996). It also contributed towards the concentration of some government services into the main centres, an example being rural hospital closures, where improved motor transport, and later helicopter evacuation services, were among the reasons put forward for making large specialised urban hospitals more viable. In contrast, some sectors (such as meat processing) were able to decentralise their operations away from the main trunk lines and ports, taking advantage of more flexible road-based freight options.

The increasing kilometres travelled by cars saw a rise in safety concerns for road users with some seeing the rapidly rising road toll consisting "...of other road users hit by motor vehicles" (Watson, 1996, p. 255).

Legislation for the mandatory wearing of cycle helmets on NZ roads was made effective from 1994²⁵. This legislation is a source of a great deal of debate²⁶ and research about, for example, its efficacy (Meehan, Lee, Fischer, & Mannix, 2013; Povey, Frith, & Graham, 1999; Rissel, 2012), its impact on health and well-being (de Jong, 2012; Robinson, 2006), and its impact on cycling numbers (Fyhri & Phillips, 2013; Rissel & Wen, 2011). The increasing imbalance of motor vehicle traffic volumes compared to those of cyclists brought into play a 'risk of scarcity' effect, whereby the fewer cyclists there are, the riskier it is to cycle (Tin Tin, Woodward, Thornley, & Ameratunga, 2011).

In addition to the economic deregulation over this period, political reform, by way of a move to the Mixed Member Proportional (MMP) voting system in 1996, in part, for the more "effective representation of minority and

²⁵ The instigation for this legislation is largely attributed to the campaigning of Rebecca Oaten following a 1986 accident in which her son was hit by a motor vehicle while cycling to school.

²⁶ See www.helmets.org advocating for helmet use and push for stronger voluntary usage rather than mandatory measures; and the Bicycle Helmet Research Foundation site www.cyclehelmets.org which promotes a sceptical view on helmet use and mandatory laws.

special interest groups” (Moon, 2013, p. 241), was to have an impact on transport strategy during the coming period.

Fifth Labour Government: 1999-2008

The fifth Labour-led government, informed by Third Way²⁷ ideals, pursued strategies that sought to balance economic development while addressing outcomes relating to social justice and sustainability. The *New Zealand Transport Strategy* (2002) and *Land Transport Management Act 2003* (LTMA), were attempts by the government to meet broader transport objectives, in order to create an “affordable, integrated, safe, responsive, and sustainable transport system” (New Zealand Office of the Minister of Transport, 2002, p. 4). They also allowed provision for Public Private Partnerships and tolling as sources of land transport funding.

The Organisation for Economic Co-operation and Development (OECD) noted the continued dominance of the motor vehicle, which in 2006 saw NZ ranked third highest country in the world per capita for car ownership²⁸. The *Environmental Performance Review* of NZ in 2007 documented that “...little has been done to manage demand for private road transport in favour of less polluting modes.” (OECD, 2007, p. 6). It was during this period that there was increased interest by the government in sustainable transport (in part due to Green Party interests and increased involvement within government²⁹). The publications resulting from this focus generally sat outside legislation and policy:

- *Cycle Network and Route Planning Guide* (Land Transport Safety Authority, 2004).

²⁷ The ‘Third Way’ was seen as a ‘modernised’ social democracy response to both neoliberalism and traditional social democracy – in essence it is viewed as a way of working in a centrist, consensus-based manner to achieve social justice outcomes within the largely neoliberal economic context of the time.

²⁸ The first was Portugal, second the United States.

http://www.forbes.com/2008/07/30/energy-europe-automobiles-biz-energy-cx_wp_0730cars_slide_2.html.

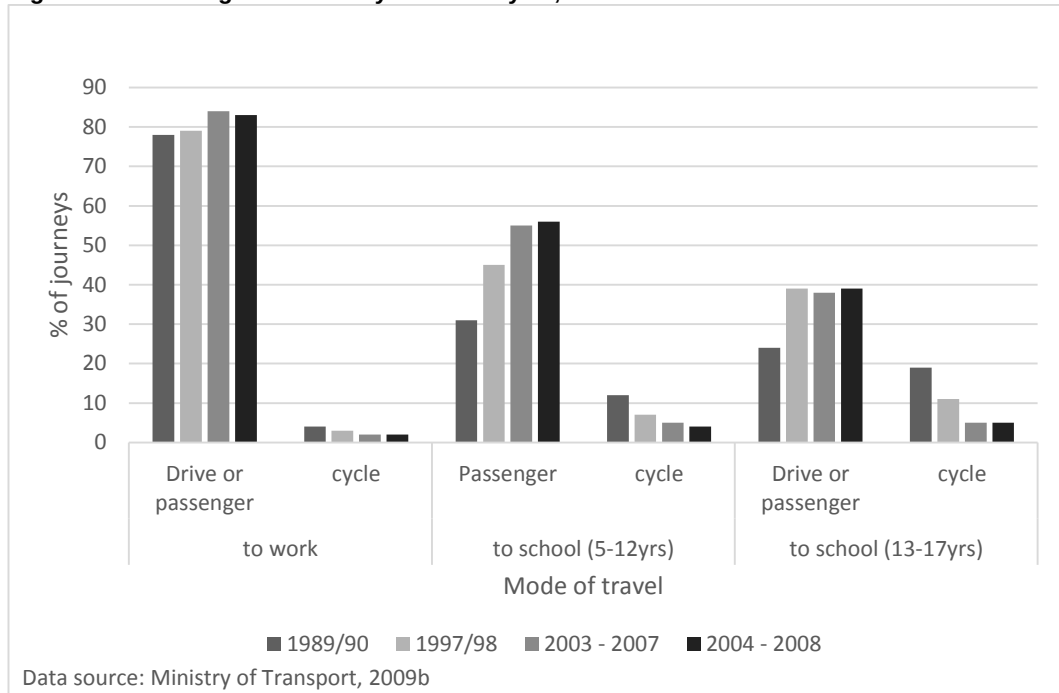
²⁹ For example, the Government Spokesperson for Energy Efficiency and Conservation was Jeanette Fitzsimons, co-leader of the Green Party.

- *Land Transport New Zealand Research Report: New Zealand Walking and Cycling Strategies – Best Practice* (Macbeth et al., 2005).
- *Getting There – on Foot, by Cycle: A Strategy to Advance Walking and Cycling in New Zealand Transport* (Ministry of Transport, 2005).
- *Sustainable Transport: Update of the New Zealand Transport Strategy: Discussion Paper* (Ministry of Transport, 2007).
- *New Zealand Walking and Cycling Strategy Stocktake* (New Zealand Transport Agency & ViaStrada Ltd, 2008).
- *Raising the Profile of Walking and Cycling in New Zealand: A Guide for Decision Makers* (Ministry of Transport, 2008c).

While many of these documents are still utilised and referenced at a local government level in current transport planning documents, such as *Getting There – on Foot, by Cycle* (hereafter *Getting There*) strategy by the Waikato Regional Council (2011), the OECD and others (for example, The Kennett Brothers, 2004), observe that they are failing to amount to an increase in numbers of people choosing cycling for transport. These observations are borne out by a variety of statistics.

Despite stating that “Cycling is a popular form of travel, both for transport and recreation, enjoyed by children and adults” (Ministry of Transport, 2009b, p. 26), the Household Travel Survey reports of the time (Land Transport Safety Authority, 2000; Ministry of Transport, 2009b) show a decreasing trend of travel by cycle against already low numbers as Figure 4 shows (note: percentage does not equal 100%, as other modes of transport are not shown).

Figure 4: Percentage of Travel by Car and Cycle, to Work and School



There was no change to the trend of increasing vehicle kilometres travelled (VKT) as outlined previously; this is attributed to increased population, economic growth (movement of goods), and with drivers, on average, travelling further³⁰. Where and how we live contributes to this, as urban sprawl and personal mobility (from private motor vehicle ownership) have a significant impact on the transport planning and mode choice (Department of Internal Affairs, n.d.; Gow, 2000).

Fifth National Government: 2008-2014

The fifth National government came into office as the GFC³¹ began to have an effect. Although spared the worst of GFC³², the combined effect with the earlier finance company collapses (Chiang & Prescott, 2010)³³, and the 2010 & 2011 Canterbury earthquakes, led NZ into recession³⁴ and

³⁰ <http://www.mfe.govt.nz/environmental-reporting/transport/vehicle-kilometres-travelled-by-road.html>.

³¹ The GFC is generally considered to encompass 2007/8-2011/12.

³² New Zealand banks (largely Australian owned) were not mired in the subprime mortgage lending that crippled banks in the United States and Europe: McLauchlan, G. (2014). *A short history of New Zealand* (New Edition ed.). Auckland: David Bateman Ltd..

³³ New Zealand had its own financial crisis – peaking in 2006 with 40 finance companies going into liquidation or receivership or other restricted trading.

³⁴ Recessionary periods occurred in 2008/09 and 2010 -

<http://www.stuff.co.nz/business/industries/8104408/Economys-growth-hit-revealed>.

policies were chosen to stimulate economic growth (New Zealand National Party, 2011). Under National, planning in regard to environmental concerns is increasingly framed in a way which highlights the pursuit of economic development as the primary goal. This is evident in the movement of responsibility for the energy efficiency and conservation strategy to the Ministry of Economic Development (MED) (2011), from the Energy Efficiency and Conservation Authority (EECA) (2007). In addition to the aforementioned observations of the OECD (2007) on motor-vehicle dominance, transport planning in NZ currently demonstrates a focus on meeting forecasted road user needs (rather than demand-management), economic, and safety objectives, while other objectives (such as sustainability) are largely non-existent. Successive amendments since 2008 to the LTMA and the Government Policy Statement on Land Transport Funding (hereafter GPS³⁵) have focussed on economic efficiency and the roading network, while removing emphasis on modal shift and emissions reduction (Harker et al., 2012).

The current economic and motor vehicle focus in this post-2008 period has been expressed in policy since 2009 through the Roads of National Significance (RoNS)³⁶. These transport projects are the main recipients of significant funding (\$11 billion between 2009-2019) and purport to "...enable economic growth rather than simply responding to it..." (Ministry of Transport, 2011b, p. 1).

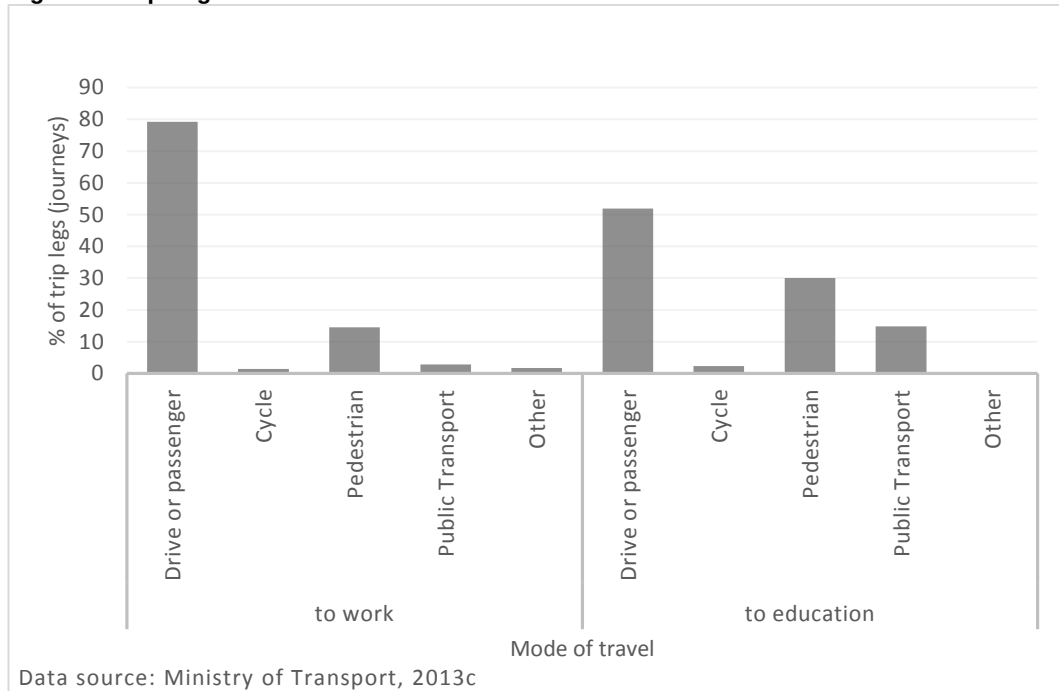
Although collection of statistics during this period was disrupted by the postponement of the 2011 census until 2013 (due to the Canterbury earthquakes), the household travel survey was still undertaken. Cycling data from the Household Travel Survey (Ministry of Transport, 2013c, 2013d) indicates little change in either the distance cycled or cycle mode share from the previous period see (Figure 5: Trip Legs to Work and

³⁵ Government Policy Statements, known as GPS, were introduced under the *Land Transport Management Amendment Act 2008*; they detail the government's funding and aims for land transport.

³⁶ 7 projects: 5 projects in the Waikato / Bay of Plenty / Auckland regions, 1 each in Wellington and Christchurch. <http://www.nzta.govt.nz/network/rons/>.

School 2008-2012. Note that while Figure 5 is not directly comparable to Figure 4, both illustrate a dominance of transport by motor vehicles).

Figure 5: Trip Legs to Work and School 2008-2012



Summary, Research Questions and Rationale

Discourses of neoliberalism and sustainability feature prominently in contemporary society, and have a malleability that makes them adaptable to a multitude of settings. Just as Peck (2004) found neoliberalism to be commonly understood, yet ill-defined and varied in application, Gunder (2006) suggests, “Sustainability is a concept that everyone purports to understand intuitively but somehow finds very difficult to operationalize into concrete terms” (p. 211). Both of these discourses feature in transport policy and are, in turn, complementary (particularly where ‘sustainability’ is used as a legitimising tool for neoliberal economic priorities) and conflicting (when sustainability’s ‘other’ concerns of social equity and the environment are to the fore).

For its part, cycling sits at a juncture between heterogeneous policy areas, representing an opportunity to be applied to a number of policy problems – health (fitness, obesity), social (access, liveability), transport (congestion), and environmental (noise, emissions, space). The myriad of motivations to undertake cycling as a mode of transport, likewise, demonstrate the versatility of the cycle / cycling as having material, embodied, social and

environmental meaning. Equally, it is both dismissed and embraced as a solution. It is clear that there is *potential* in cycling, and equally, that an integrated approach to its advancement stands a greater opportunity for its utilisation. Therefore the placement of utility cycling in transport policy and its subsequent mode share, could be seen to illustrate the state of ongoing tensions between neoliberal and sustainability discourses. Examining this further increases our understanding of how these tensions are expressed in NZ, and the implications for meeting the variety of objectives demanded of transport policy.

This examination of the literature leads to the following questions to illuminate the place of utility cycling:

- How is utility cycling positioned within contemporary transport policy discourse in New Zealand?
- What modes of transport are privileged or excluded?
- What discourses are evident in reference to utility cycling and sustainable transport in policy documents?
- What ideologies underpin the discourses identified?
- Are the discourses identified in official policy documents consistent with each other, particularly within the same institution or layer of government?
- How is discourse used to shape and justify transport policy decisions?
- How do discourses facilitate or impede the implementation of sustainable transport policies?

This chapter highlighted the importance of discourse in understanding transport policy. The following chapter reviews discourse analysis methodology, and concludes with a section on the research design for this thesis.

3. Research Methodology

Making sense of policy and policy change can be considered from a range of perspectives. As highlighted earlier, struggle – between actors or ideologies for example – is a feature of policy formation (Hill & Hupe, 2009). Such struggles reveal how policy is ambiguous and open to multiple interpretations for implementation. Policy making involves the construction of meaning through language, and language is not a neutral medium. Interpretive policy analysis (IPA) is oriented towards uncovering those meanings, given the fact that they powerfully shape what is done.

This thesis adopts an interpretive approach, using specifically, critical discourse analysis to carry out a qualitative study of the place of utility cycling in contemporary NZ transport policy. The chapter provides a broad overview of IPA and discourse analysis before focussing on critical discourse analysis as the methodological approach. The second part of the chapter presents the research methods, and concludes with limitations and considerations relevant for this thesis.

Interpretive Policy Analysis (IPA)

The range of approaches that are captured under IPA explore how political actions and institutions construct and communicate policy, and the meanings that result (Wagenaar, 2011). Approaches to IPA are extensive, and include, phenomenology, structuralism, post structuralism, ethnomethodology, discourse analysis (a sub-group with its own extensive list of approaches), and frame analysis, to name but a few (Wagenaar, 2011). In emphasising greater participation by the public in policy-making, IPA approaches lead to more accountable, and democratic, policy formation and implementation (Fischer & Gottweis, 2013; Glynos, Howarth, Norval, & Speed, 2009).

Interpretive perspectives are concerned with studying the policy *meaning* (what actors bring to policy-making), *argument* (how actors legitimate their policies), along with the hidden assumptions, and implications, of policy (Schneider & Ingram, 1997). This thesis adopts discourse analysis as the main methodological approach. The field of linguistics gives a starting

point for understanding what is meant by discourse and its analysis. Here 'discourse' may be defined as a unit of speech or writing larger than a sentence, and 'discourse analysis' is the study of "the complex structures and mechanisms of socially situated language-use"(Cameron, 2001, p. 7).

Discourse Analysis

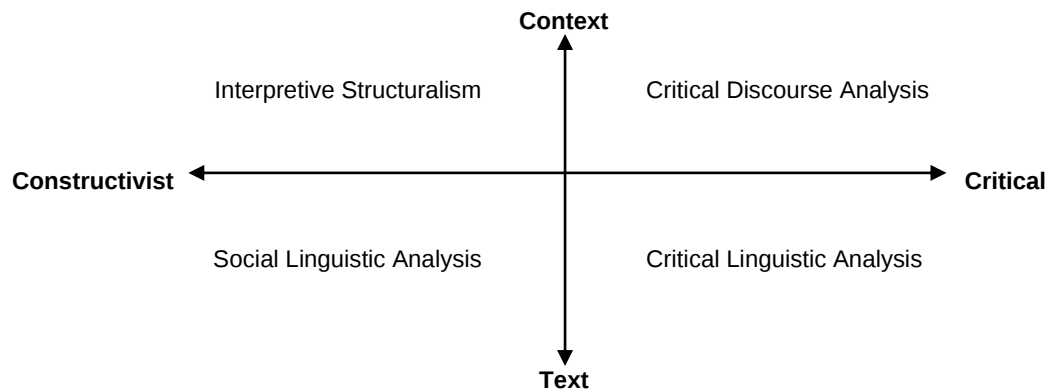
As a general term, 'discourse analysis' is attributed to Zellig Harris (1952), a linguist and mathematical syntactician, who began to survey the relationship between language and context. Further development by historian and philosopher Michel Foucault (in particular see, Foucault, 1972) explored discourse as a representation of the relationship between knowledge and domination – an expression of power. Wagenaar (2011) notes that the development of Foucault's ideas over his career from "... "archaeological" (1960's), "genealogical" (1970's), and "theory of the subject" (1980's)" (p. 112), continued to explore concepts and expressions of power were positive and "productive" (p. 111), without being limited to the state. Foucault didn't see unbeknownst individuals at the mercy of overriding objectives of, for example, the state; neither did he subscribe to the view that individuals were autonomously able to impose their will on their environment or give meaning to everything. Rather, Foucault was interested in the relationship between individual 'freedom', the knowledge individuals hold, and the context of existing conditions. So a 'Foucauldian' style of discourse analysis focuses on power relationships in society as they are expressed through language.

Discourse analysis can be used to explore how language is utilised to construct and present different world views (Paltridge, 2006), and within the social sciences is associated with interpretive, social constructionist, (Guba & Lincoln, 1989, as cited in Hajer & Versteeg, 2005, p. 176), and a variety of critical approaches. Discourse analysis has been applied in many disciplines within social science – including political science and public policy – each with characteristics to suit.

Figure 6 represents four major approaches to empirical discourse analysis on axes illustrating the foci of each particular perspective (Phillips & Ravasi 1998, as cited in Phillips & Hardy, 2002, pp. 20-21). Phillips and

Ravasi located the four approaches on an axis to illuminate the foci of each particular perspective, but iterated that this representation, while illustrative, did not capture the dynamism of a particular approach.

Figure 6: Different Approaches to Discourse Analysis



Source: Phillips & Hardy, 2002

The substantial and dynamic range offered by discourse analysis allows researchers scope to define their particular approach to suit the nature of a topic and their interest in it.

Argumentation and Discourse Analysis

Just as argumentation aims to obtain agreement through the use of language in the defence or countering of a particular position (van Eemeren, Jackson, & Jacobs, 2011), an argumentative approach within interpretive policy analysis sees political actors engaged in a struggle for ‘discursive hegemony’ by arguing for their interpretation of reality (Hajer, 1997). The approach seeks to understand how policy is created, communicated, and ultimately understood and implemented (Fischer & Gottweis, 2013). The method recognises that a rational approach, focussed as it is on empirical-deductive, value-free explanation, fails to address the subjective aspects of policy making and the complexity of problems today. As Hajer (1997) states, the (frequently deductive) “single problem-single answer” (p. 43) approaches are insufficient. In addressing today’s ‘messy’ policy problems which can be characterised as “...heterogeneous, interconnected, often contradictory, and increasingly

globalized...” (Fischer & Gottweis, 2013, p. 429), the argumentative approach becomes one of:

...establishing the interconnections among the empirical data, normative assumptions that structure our understanding of the social world, the interpretive judgements involved in the data collection process, the particular circumstances of a situational context (to which the findings or prescriptions applied) and the specific conclusions. (Fischer, 2003, as cited in Fischer & Gottweis, 2013, p. 430)

Politics by its very nature is argumentative – it is a forum for multiple ideas, concepts, and goals, all of which are given expression through discourse. As Dryzek (2005) reflected, the existence of competing understandings is why politics exists in the first place. Discourse analysis seeks to examine the communications through which this knowledge or ‘truth’ is presented, and in doing so has the capacity to:

- reveal the role of language in politics;
 - reveal the embeddedness of language in practices;
 - answer ‘how’ questions and to illuminate mechanisms
- (Hajer & Versteeg, 2005, p. 175).

One way an ‘argumentative turn’ has been developed in critical policy analysis is through the notion of practical argumentation, which is a feature of the work of Fairclough and Fairclough (2012), who advocate a subset of political discourse analysis where a focus on argumentation would provide “... a principled way of criticizing powerful arguments that are not easily challenged...” (p. 81). Argumentation in political discourse is primarily concerned with actors working out what to do and what particular action to take. Therefore analysis should focus on how representations within discourse provide reason for certain actions – what the authors describe as practical argumentations – and how they provide legitimacy for that action. Fairclough and Fairclough posit that practical argumentation is a focus specifically on the problem-solution forms of argumentation through examination of “...a Value premise, a Goal premise, a Circumstantial premise, a Means-Goal premise and a Claim (or conclusion)” (Fairclough & Fairclough, 2012, as cited in Fairclough, 2013, p. 183).

Discursive Tradition

A discursive tradition to discourse analysis, builds on Foucault's "...concept of power which is 'prior to language'..." (Hastings, 1999, as cited in Hewitt, 2009, p. 2), and is approached in a number of ways by researchers. Building a framework in which to structure research, analysts use tools to identify discourses, such as those employed by Hajer – *storylines*, *metaphors*, and *discourse-coalitions* (Hewitt, 2009). *Storylines* are a condensed form of narrative using metaphors; the concept is described more fully later in this section.

Metaphors are symbolic of key ideas of a particular discourse – for example, 'sustainable growth' or 'greening transportation' – that represent not only new ways of understanding, but also suggest ways of responding to their subject. Through their use, institutions "...educate and form us – especially through the socially enacted metaphors they give us, metaphors that provide normative interpretations of situations and actions" (Bellah et al., 1991, as cited in Princen, 2010, p. 61). Therefore analysing the metaphors evident in policy and/or the discourses employed by an institution is a way of uncovering the basis of a policy argument (Yanow, 2000).

In considering how discourses are created, shared, and perpetuated, Hajer conceptualises *discourse-coalitions* to be "...a group of actors that, in the context of an identifiable set of practices, shares the usage of a particular set of story lines over a particular period of time" (Hajer, n.d.). These coalitions form across all actors involved, formally or informally, and might include, central and local government, interest groups, the public and the media in regard to a particular policy activity (Hewitt, 2009).

Storylines and Path Dependence

As defined by Hajer (1997), "Story-lines are narratives on social reality through which elements from many different domains are combined and that provide actors with a set of symbolic references that suggest a common understanding" (p. 62). They are social constructions which represent and make meaning of complex information using the normative

assumptions and values of the actor(s) or institutions using them, and as such, are representing knowledge in a particular way. Storylines contribute a metaphoric way of understanding a problem and as they become accepted, are used more and more to represent a seemingly coherent problem and approach to that problem. For example, a safety storyline that focussed on promoting motorised vehicle transport was identified by Matthews and Imran (2010) as one of several storylines justifying Auckland's transport policy path privileging road building and was evident in planning documents from 1965 onwards.

Identifying storylines contributes to the examination of how political actors construct and maintain hegemonic discourse or contest it. In addition, analysis is able to illuminate institutional practices and associated power relationships. Fischer (2003) gives an example of cost-benefit analysis being used as a practice which helps ensure the primacy of a market orientation – the very data biasing discussion toward that direction (p. 90). Hajer (1997) emphasises that analysis of storylines and discursive interactions as they relate to specific practices, rather than actors, is preferred. Practices facilitate policy change and Hajer's (1997), case regarding acid rain illustrated how even when the discourse changed, policy change didn't occur as government environmental departments continued to monitor the problem through existing practices.

When our understanding of a problem or approach to a problem is dominated in a particular way, such as by a particular storyline, that understanding can come to dominate decision-making, leading to *path dependence*. Path dependence refers to a notion of self-reinforcing decision-making, whereby once a particular path is started down, it becomes increasingly difficult to reverse or change³⁷. In the context of sustainable transport, Imran and Matthews (2011) have highlighted how traditional storylines which privilege motor vehicle use have shaped Auckland urban transport policy reinforcing these particular solutions over many decades. A case study exploring strategies for breaking path

³⁷ A range of perspectives exist on this idea – from political science to economics – a useful overview is contained at: <http://govthesis.site.wesleyan.edu/research/methods-and-analysis/analyzing-qualitative-data/path-dependence/>.

dependency highlights the complexity and difficulty of this task, noting “Conflicts are probably unavoidable when breaking path dependencies in policy making, and therefore deliberative processes need to be designed and managed in ways that take seriously the significance of potentially conflicting norms, habits and attitudes” (Hrelja, Isaksson, & Richardson, 2013, p. 203). Alternatively, the study by Garud, Kumaraswamy, and Karnøe (2010) posits path creation – whereby actors are given greater agency to influence pathways, learning from what has occurred in the past to create new options – provides a better representation of the influence of actors in a process such as policy-making.

Work exploring storylines and path dependence in contemporary transport policy in Australia (Low & Astle, 2009; Low & Gleeson, 2001; Low et al., 2003, 2005), suggests a multivalent understanding of path dependence provides greater opportunity to recognise its source and influence. Low et al. (2005, p. 392), argue that three strands of path dependence are evident within institutions: technical (momentum gained from fixed infrastructure and knowledge systems investment); institutional (norms of the organisation); and discursive (assumptions and beliefs about the structure of problems to be solved). In order to influence transport policy one must first understand these sources of path dependence, and how resistance is generated by both existing storylines and new stories that “...justify the continuation of the transport policy ‘business as usual’” (Low et al., 2005, p. 406).

Critical Discourse Analysis (CDA)

Under the domain of interpretive methods of policy analysis, critical discourse analysis (CDA) is the oeuvre of a number of scholars, notably Norman Fairclough, Teun van Dijk, and Ruth Wodak, and has at its core a concern with how power is exercised through discourse. CDA, through its critical approach, is concerned with addressing ‘social problems’, in particular from the perspective of those with the least power, by “...critically analysing those in power, those who are responsible, and those who have the means and the opportunity to solve...[social] problems” (van Dijk, 1986, as cited in Wodak, 2001, p. 1).

CDA brings together language analysis and social theory in a way whereby instances of discourse are viewed as three dimensional, "...being simultaneously a piece of text [the focus of language analysis], an instance of discursive practice [types of discourse and how they are utilised], and an instance of social practice [context and its influence on discursive practice]." (Fairclough, 1992a, p. 4). These dimensions are evident in the micro, meso, and macro levels of social order. To notionally bridge the gap between approaches that concentrate on the micro or macro of social order, CDA can employ a variety of methods, and emphases can be on: *members-groups*; *actions-process*; *context-social structure*; and *personal and social cognition* (van Dijk, 2008).

In addition, Fairclough uses the term genre "...for a relatively stable set of conventions that is associated with and partly enacts a socially ratified type of activity... [therefore] genre implies not only a particular text-type, but also particular processes of producing, distributing and consuming texts" (1992b, pp. 284-285). Also, in considering the genre of policy documents within political discourse, we are reminded that "political discourse is at least partly topically about politics itself" (van Dijk, 1997, p. 25). Therefore attention is given to the influence of political ideology and setting (such as the layers of central, regional, and local government).

Further, intertextuality shows how documents are connected, reproducing certain discourses. Of particular interest, are instances of constitutive intertextuality or interdiscursivity, characterised by "...relations between discursive formations or more loosely between different types of discourse" (Fairclough, 1992a, p. 47); and manifest intertextuality whereby "...texts are explicitly present in the text under analysis... [they are either] "manifestly" marked... [such as with] quotation marks... [or "incorporated" without]... being explicitly cued..." (Fairclough, 1992b).

Genre and intertextuality are two ways in which CDA approaches text from a critical perspective. As described, they contribute to the particular advantage of the CDA approach within the political setting and process of policy-making. The implications of this context are explored more fully in the following three sections.

CDA and Public Policy

Bacchi suggests that those policy analysts who view 'policy as discourse' tend to focus on political projects which "...challenge current 'relations of domination'" (Thompson, 1984, as cited in Bacchi, 2000, p. 55), and by using the term 'discourse' they are saying something about the difficulty of realising advanced social change. Further, their definition of 'discourse' allows scope for contesting the dominant order, by emphasising 'contradiction and multiplicity' (Bacchi, 2000). Ultimately, discourse analysis is able to uncover frames and ideas in problematisations (how politics through policy produces certain types of problem definitions, which in turn, allow for certain types of solutions), which gives space to discuss, and possibly, contest them, and as van Dijk suggests, it may mean "...discourse analysts conduct research in solidarity and cooperation with dominated groups" (van Dijk, 2008, p. 86).

"Discourse... matters in policy change both with regard to its ideational content, that is, its ability to convince of the necessity and appropriateness of a policy program, and to the interactive process by which it enables policy elites to co-ordinate the construction of the policy program and communicate it to the general public" (Schmidt, 2001, p. 250). In order to illustrate this and demonstrate how and when discourse exerts a causal influence on policy, Schmidt (2001) presents an examination of neoliberal economic policy implementation in Britain and France. This comparative study found that discourse can have a legitimating effect on the outcomes of policy change. In contrast to France, the discourse in Britain was transformative, an example of the "...causal influence of communicative discourse..." (Schmidt, 2001, p. 260), securing public buy-in of the policy direction from the time of Thatcher's Conservatives through to the 'New Labour' version under Blair. This transformative discourse was achieved in part through the alignment and promotion of the neoliberal policy objectives with the existing public interests.

As Schmidt's work demonstrates, the interpretation of discourse must be undertaken through a lens of context and a range of factors beyond the written word. The environment into which discourse is expressed shapes

both the discourse itself, and the response to it; further we should see CDA as “...not just the analysis of texts, but rather the analysis of language in the context of action” (Wagenaar, 2011, p. 166). Farrelly (2006, as cited in Wagenaar, 2011) shows how discourse can be contradictory to practice through the concept of interdiscursivity. For example, the constitution of a local government-run community forum states it is to “...provide an open forum to discuss local concerns and issues” but allocates only 30 minutes for “...questions by members of the public” (Farrelly, 2006 as cited in Wagenaar, 2011, p. 167). In order to make sense of the discourse in his study Farrelly uses different lenses (democratism and interdiscursivity), thereby meeting what Wagenaar (2011) suggests as the need for a “...substantive theory of the topic on which you perform critical discourse analysis” (p. 166).

CDA and Power

As stated above CDA is primarily concerned with how power (and its abuse) is exercised by discourse; many dimensions and devices exist to facilitate the critical analysis of discourse for this purpose.

As noted earlier, understanding power through the study of discourse found its origins in the oeuvre of those such as Foucault (see Foucault, 1972). Foucault examined how discourse as an expression of power and knowledge was used to dominate, and reproduce, control in society, particularly through institutions. Similarly, in his seminal case-study on politics, administration, and planning within the town of Aalborg, Denmark, Flyvbjerg (1998), categorically links power and knowledge: “Power determines what counts as knowledge, what kind of interpretation attains authority as the dominant interpretation. Power procures the knowledge which supports its purposes, while it ignores or suppresses that knowledge which does not serve it” (p. 226). This relationship between power and knowledge is expressed in the discursive practices of institutions. For example, identifying transport as an economic activity within transport policy effectively restricts projects to those that support that categorisation; or policy formation processes that restrict consultation control the introduction of knowledge that may differ from the dominant.

In his book on discourse and power, van Dijk (2008) presents CDA as a way of analysing *how* discourse exposes or represents power, by focusing on the ways “discourse structures enact, confirm, legitimate, reproduce, or challenge relations of *power* and *dominance* in society” (p. 86). Different levels of analysis reveal aspects of a whole. For example, at the micro level, analysis may focus on the language used in social order (such as speeches and discussions that describe cycling as a dangerous activity); while the macro level focuses on the expression of power and the inequality between social groups (and may be represented in legislation for mandatory cycle helmet use); and meso levels may cover a multitude of ground in-between (van Dijk, 2008).

There is a notion of ‘mind control’ and how power and dominance are expressed, replicated and accepted through discourse that aligns with existing personal beliefs (as the study by Schmidt, 2001, also found); through the requirement to respond to and acknowledge certain discourses (such as via institutions of work and education); through a lack of alternative discourses expressed by, for example, the media, the public, and other interest groups; and finally through an inability to challenge the discourses through particular existing personal knowledge or beliefs (van Dijk, 2008, p. 92). Therefore particular discourses, in particular contexts, with particular recipients, will hold more or less power. Consequently this suggests mind control is a thorny and complex device to uncover and counter.

Fairclough (1989) refers to power both *in* discourse and *behind* discourse. Power *in* discourse refers to the contextualisations, or cues, (for example, grammatical, verbal, non-verbal), in text or talk that indicate how to interpret or relate to what the writer or speaker has said (Wagenaar, 2011). Contextualisations impose assumptions on the listener or reader, which draw on their knowledge to allow them to interpret, or make sense of, the text or talk – these assumptions of a ‘common background’ or ‘common knowledge’ are ways in which power may be expressed. Fairclough (1989, p. 48), gives the example of a dominant cultural group ‘gatekeeping’ in encounters such as interviewing for a job, where the interviewer assumes all interviewees (irrespective of background) are

familiar with the dominant conventions, and therefore interprets their responses based on that assumed understanding. It is in this way that discourses *in* and *behind* can be seen to combine or overlap.

Dimensions which relate to the power *behind* discourse include standardisation (the evaluation of a particular way of communicating – speaking and writing – as standard, or the ‘national’ language); discourse type (the conventions that are an expression of particular interactions, such as, a university lecture); and access (various ways in which discourses are constrained or given right to use – such as through literacy or formality) (Fairclough, 1989). For Fairclough, power is not undisputed, or fixed, irrespective of where it is found, “...power at all... levels is won, exercised, sustained, and lost in the course of social struggle” (Fairclough, 1989, p. 68).

Bacchi challenges those she describes as ‘policy as discourse’ scholars that there is frequently too much emphasis placed on the “...constraints imposed by discourse/s and a tendency to concentrate upon some groups, those described as having power, as the makers and users of discourse” than the ‘space for challenge’ (Bacchi, 2000, p. 55). In other words, it is important for those conducting CDA, and examining power relations, to ensure that groups of users (those identified as not having the ‘power’ of others), are not disempowered by the analysis – there must be a balance between the constitutive effect of discourse and its potential for contributing to the political change efforts of those groups.

CDA and Ideology

Closely tied to the exploration of discourse and power is ideology. Definitions of ideology vary, but very broadly can be thought of as “...the fundamental beliefs of a group and its members” (van Dijk, 2000, p. 7). Ideological functions of discourse include legitimization, defence and control (van Dijk, 1998). Ideologies (such as communism, racism) have frequently been utilised to legitimate power, to the point where this negative concept of ideology has become pervasive – although ‘positive’ ideologies (such as feminism) also exist to “...sustain and legitimize opposition and resistance *against* domination and social inequality” (van Dijk, 2000, p. 8).

Key to this is an understanding that ideology is not necessarily dominant (it may be fringe or extreme for example), nor negative, but it *can* be, and it is where ideology is entwined with power abuse or dominance that CDA is concerned.

For Fairclough, ideologies contribute "...constructions of reality... which are built into various dimensions of the forms/meanings of discursive practices, and which contribute to the production, reproduction or transformation of relations of domination" (1992a, p. 87). Critical analysis of text, particularly of genres (ways of acting in a discourse aspect), styles (ways of being), and assumptions (implicit meanings), reveal its contribution within a wider analysis of social practices (Fairclough, 2003).

Analysis of ideology in text can be approached in various ways, one of which is 'framing' (Gee, 2004) - an examination of how content is presented, the particular way or slant used. Concepts of 'foregrounding' and 'backgrounding' are related to framing in that they consider what ideas or issues within the text are highlighted or downplayed (Paltridge, 2006). Importantly, ideologies cannot solely be 'read off' text (Fairclough, 1992a; van Dijk, 1998), and as such, macro level analysis must occur in a broader context, particularly taking account of the social background and practices it is situated in.

Finally, Gee (2004) warns that the context we consider in our interpretation of the text must be acknowledged as attributing only to one possible meaning, a concept known as a 'frame problem'. In the sense that it is impossible to consider all possible frames, discourse analysis is always open to further interpretation from alternate frames or new knowledge or information.

Summary

Within the overarching theories of IPA, critical discourse analysis has been chosen as the methodological base for this research. CDA facilitates examination of how context shapes and influences the discourse of policy, which in turn influences and legitimises a particular course of action over another. In this thesis, CDA allows for the location of utility cycling within transport policy, and can reveal how discourses, such as those of

neoliberalism and sustainability, influence that position. Further, it provides an avenue for understanding how current policy settings privilege the use of motor vehicles and, finally, provides a basis for the promotion of more sustainable transport initiatives.

This research can be placed within the critical discourse analysis perspective, grounded in the work of van Dijk (2008, 2011), and Fairclough (1992a, 2003, 2010), while drawing on ideas from the interpretive tradition of discourse analysis (Hajer, 1997), inspired by Foucault's concepts of knowledge and power. CDA allows for consideration of how utility cycling is included or presented in policy documents by analysing the language used, and the themes or storylines evident. Analysis across the documents reveals the consistency, or otherwise, of the layers of government in its treatment of utility cycling, while also revealing the power relations at play in (transport) policy, and the ideological arguments that legitimatise current transport policy.

Research Methods

Two main approaches to research are utilised in this thesis, namely, review of published literature, and a discourse analysis of transport-related strategic and policy documents of all levels of NZ government. The remainder of the chapter sets out the method for these approaches.

Literature Review

A comprehensive, critical literature review of scholarship in the area of utility cycling, sustainable transport, and the discourse of cycling and transport was undertaken.

Early reviews of the scholarly literature were wide ranging in nature, and this provided an overview of transport and cycling that helped to refine the topic to focus more exclusively on the policy treatment of cycling as a mode of transport, rather than aspects of equipment and infrastructure as barriers to cycling. In addition to utility cycling itself, cycling for transport is investigated through the theme of sustainable transport.

A review of literature on neoliberal discourse provides a further contextual framework for this topic.

Data Selection / Collection

Criteria regarding timeframe, document type, source, and format was established to guide the selection of material.

Timeframe and Document Type:

The timeframe of 2008 – 2013 was established as a base period to encompass the direction and development of current policy whilst capturing major policy documents from all levels of government. This timeframe encompasses the 2008 establishment of the New Zealand Transport Agency (from the merging of Land Transport New Zealand and Transit New Zealand), the 2008 – 2012 global financial crisis, and the 2008 election of the current government.

Documents were identified principally through a process of cross-referencing starting with the principal Act. Statutorily required documents were identified in the Act, then those documents, along with the websites of the principal organisations or agencies assisted in identifying the remaining documents (such as the 'Key strategies and plans' identified by the Ministry, see Ministry of Transport, 2013b), with particular focus for those referenced in the writing of other documents. Further documents relating specifically to cycling were identified to supplement the core.

Four key documents have been included that originate from outside this timeframe. The principal Act, *Land Transport Management Act 2003* (particularly for the progression of this Act through Amendments from 2008 to 2013), and the only cycling specific transport strategy, *Getting There – on Foot, by Cycle* (2005), as this is referenced in some of the policy documents at regional and local government level. In addition, the *New Zealand Transport Strategy 2008* (hereafter *NZTS 2008*) and the *2008 Government Policy Statement on Land Transport Funding 2009/10–2018/19* (hereafter known as *GPS 2008* or *GPS 2009*, depending on publication date) provide a comparison to the current policy documents where required. As a result, the documents included in the corpus are the current policy related documents for transportation (and cycling within transportation) in NZ. The corpus can be defined as relatively static,

which means a “...sample of discourse use at one particular point in time...” (Paltridge, 2006, p. 162), is captured.

Sources:

All relevant documents were gathered from the following government bodies. In total, seventeen documents were collected for analysis.

Central government

- Ministry of Transport (MOT)
- New Zealand Transport Agency (NZTA)
- National Road Safety Committee (NRSC)
- National Infrastructure Unit (NIU)

Regional government

- Waikato Regional Council (WRC)

Local government

- Hamilton City Council (HCC)

A list and explanation of the documents is included in Appendix A: Documents.

Format:

For ease of analysis documents were captured first in digital Portable Document Format (PDF) for storage and as an ‘as published’ record, then copied and pasted into Excel to create a data set for text analysis.

Document Analysis

Rather than instigating a complete micro-level discourse analysis of such a large corpus of text, analysis was built across several levels. Two steps of data collection and analysis are undertaken, keyword count, and keyword and phrase analysis. The keyword count was carried out in order to establish any articulation (or otherwise) of cycling. The keywords selected were, cycle, cycled, cycling, cyclist, bicycle, bicycled, bicycling, bicyclist, with the search term >cycl<. The remaining keywords, bike,

biked, and biking, were searched under the term >bik<. Where these words appeared in relation to other transport (such as motorcycling), or in a non-transport context (such as recycling), they were discounted. Analysis of cycling related wording was undertaken for all documents. The text was analysed for the purpose of gaining insights as to how cycling is positioned, and themes that frame it (Gee, 2004). Keyword and phrase analysis offers a context for the cycling reference (for example, as a form of sustainable transport), which allows exploration of how cycling is framed in policy documents. While wary of quantifying these results, the simplified search and count is an expedient method of identifying the presence of cycling and the context in which it is presented. This leads on to consideration of metaphors, and the use of storylines to construct particular understandings of the transport problem.

Building from initial micro level text analysis further examination looks to how, ideological discourse (such as, what ideas are foregrounded or backgrounded, in the framing of transport and cycling - Paltridge, 2006); the influence of genre and genre chains (how particular genre processes sought to replicate and influence knowledge, including through intertextuality) (Fairclough, 1992b; van Dijk, 1997); funding as a strategy for enabling or constraining particular activity; and the setting of multi-layered government, are utilised to influence and control a particular understanding of land transport and the position of utility cycling within. Also considered is how these strategies may create opportunities for challenging the dominant discourse.

Ethical Considerations

There was no need to seek ethical approval for this research as the focus was on analysis of published material.

Limitations and Other Considerations for this Study

It is important to acknowledge that choice of timeframe – and document selection – is open to a degree of researcher bias. Bias has largely been avoided in document selection as the documents are virtually self-selecting, in that they select each other through their inter-referencing - the

relevant Act references the Policy Statement, which references regional policy documents, and so on.

The chosen timeframe restricts the documents included and this can be seen as “...a compromise between the desirable and the feasible’ (Stubbs, 2004, as cited in Paltridge, 2006, p. 163). Were the timeframe larger it would incorporate a larger range of documents, allowing a more dynamic corpus through which to explore more comprehensively any changes in language use over time – illuminating the differences in political context (including the introduction of mandatory cycle helmet use and the increased availability in low cost imported automobiles following deregulation) and its subsequent impact on cycling for transport. However, given the research foci of the placement of utility cycling in contemporary transport policy, this is not a significant limitation.

Concerns regarding the difference between analysis and interpretation must be addressed (Widdowson, 1995). Analysis is clear when it concerns a discrete word (such as cycling), interpretation emerges where the researcher places that word in context. While able to use certain markers to identify the context accurately (for example ‘safety’), there is a degree of interpretation – in the example of ‘alternative transport mode’, it may relate to cycling as a mode to reduce congestion or as simply a transport activity. The resulting data from this type of analysis contributes a general overview of the ways in which cycling is framed in contemporary transport policy.

The format and accessibility of documents is a limitation, as is the method of analysis by not allowing refined analysis, for example counting incidence of occurrence picks up repetitions of the same heading, project etcetera. Using Excel as the tool of text analysis limited accuracy through an inability to refine searches and results without extensive manual effort. This was particularly true for the constraints imposed by the size and format of the chosen document. For example, the *National Land Transport Programme* (New Zealand Transport Agency, 2012b), was both unwieldy and unstructured due to the PDF format being comprised of screen shots of webpages (with multiple visuals and repeated menus,

headings, and footers). This resulted in a disordered body of text within Excel which was time consuming and difficult to analyse.

Ultimately, I have endeavoured to be transparent to readers in order to maintain credibility and overall understanding.

4. Thematic Positioning of Cycling in Contemporary New Zealand Transport Policy

This chapter presents the findings of a micro-level initial analysis of the documents in response to the research question, how is utility cycling positioned within contemporary transport policy discourse in New Zealand? The intent is to reveal the presence of cycling, and how that presence is positioned through contextual framing.

The appearance and frequency of particular words can be considered "...a set of hints or clues to the nature of a text" (Sinclair, 1991, as cited in Alexander, 2009, p. 69), and as such it is a starting point for analysis. The framing starts to reveal the storylines attributed to cycling (and more broadly transport) illuminating the basis for the treatment of cycling within transport policy. Where cycling has a presence in the documents it can be framed in a particular way; through analysis of the documents particular framing categories or themes emerged³⁸. These themes can be loosely grouped in three ways³⁹:

1. Cycling as a *transport activity* within the *transport system*, with the following categories
 - a. Transport Activity – cycling a transport activity that is part of the general transport infrastructure, planning, and funding of the transport system
 - b. Safe System – cycling as an activity within a safe transport system
2. Cycling as a *mode of transport* within a *sustainable transport system*
 - a. Multi-modal Transport Choice – cycling is an integral option within a multi-modal transport system where there is

³⁸ The results of the keyword count, and basic keyword framing analysis are outlined in Appendix B: Results of Keyword Search & Context Hierarchy: Cycling.

³⁹ The remaining category, Heading / Title is where 'cycling' is simply within a heading, or document name within the text and therefore not required beyond revealing the presence of cycling.

- flexibility to choose transport modes that suit a range of needs (for example, journey type, journey length, budget)
- b. Sustainable Transport – cycling as a sustainable mode of transport contributing to environmental sustainability (for example, through reducing emissions, noise pollution, and land use)
 - c. Congestion Solution – cycling as an alternative transport mode to motorised vehicles potentially reducing congestion on roads (for example by moving people from private motor vehicles to bikes)
 - d. Active Transport – cycling as a form of physical activity with associated health benefits (for example, weight loss, cardiovascular fitness)
 - e. Improved Access / Mobility – cycling as a mode of transport that offers a social benefit through increased mobility, improving access to services such as education, employment, and health
 - f. Utility Cycling – cycling for transport (for example, commuting to work, education)
3. Cycling as a *recreational activity*, with the following category
- a. Recreational Activity – cycling as a recreational activity (for example, for leisure, sport, or tourism)

The remainder of the chapter examines these three groups.

Transport Activity

The first grouping of thematic categories views cycling as a *transport activity* within the *transport system*, and incorporates categories relating to the provision of infrastructure, planning, and funding of a safe transport system.

Transport activity classes⁴⁰ are utilised in transport policy documents and are a reflection of the government's priorities for transport through their classification, definition, and funding allocation. The activity classes are

⁴⁰ Transport activities are classified into work categories, which are then organised into activity classes for funding through the NLTP.

articulated in the GPS and allocated funding through the NLTP; cycling has been included as an activity class since the first GPS⁴¹. The GPS determines funding ranges for the transport activity classes within which the NZTA, through the NLTP, must prioritise activities from the various regional programmes.

The two themes – Transport Activity and Safe System – demonstrate a focus on network infrastructure and safety for users of that network. The use of particular metaphors emphasise infrastructure and its economic link, particularly where the genre has a greater public audience (such as *Connecting New Zealand*). Before these metaphors are examined, some consideration must be given to what is understood of the term infrastructure. From the *National Infrastructure Plan* “‘Infrastructure’ is the fixed, long-lived structures that facilitate the production of goods and services and underpin many aspects of quality of life. ‘Infrastructure’ refers to physical networks, principally transport, water, energy and communications” (National Infrastructure Unit, 2011, p. 1). Within the transport activity classes, infrastructure relates to: managing and delivering capital improvement, and renewal and maintenance programmes for state highways and local roads; supporting public transport services; and increasing walking and cycling⁴². These classes also attract the bulk of the funding (see 78% funding allocation to these activity classes in 11/12 in *GPS 2011*, Ministry of Transport, 2011b).

The link between transport infrastructure and the economy is explored in the literature (see Transport Discourse section in literature review), and is acknowledged for the complexity and numerous variables influencing this. Part of this complexity is due to transportation and economic systems each being complex in their own right. Kövecses and Benczes (2010), propose that abstract complex systems are often made sense of using human body metaphors, which we saw applied both to transport, and as a

⁴¹ Cycling was originally in *GPS 2008* as the activity class ‘Walking and cycling facilities’. The current *GPS 2011* has ‘Walking and cycling’ – see Appendix G, for more detail.

⁴² For the period of 2012-15 not all transport projects are being funded through the *GPS 2011*, for example, capital investments in some rail projects are currently being funded out of Crown appropriations.

way of signifying the importance of transport to the economy. Human body metaphors were invoked on various occasions in the documents:

- *Connecting New Zealand* “The roading network is the backbone of the transport system” (Ministry of Transport, 2011a, p. 2). The Minister’s introduction references the roading network to freight and private use and need to keep up with increasing demand.
- “The roading network is, in many ways, the backbone of the domestic transport system”, and to reiterate the statement it is replicated more emphatically in a featured text box on the same page “Roads are the backbone of the transport system” (Ministry of Transport, 2011a, p. 9).
- “...State highways... are a backbone for our tourism market” (Ministry of Transport, 2011a, p. 32).
- *National Infrastructure Plan 2011* (NIP) “...the government realises that infrastructure forms the backbone of all New Zealand communities...” (National Infrastructure Unit, 2011, p. 1).
- *RLTS* “The Waikato region lies at the productive heart of New Zealand’s economic engine room...the transport network in the Waikato region is vital to the nation’s economic prosperity...”, this provides priority for the roading network, “The state highway network in the region is the backbone of the roading network...” (Waikato Regional Council, 2011, p. 18).

The use of these metaphors establishes the road infrastructure as vital to the transport system, and the transport system as vital to the economy – this framing of transport infrastructure draws a parallel with the literature, and uses discourse seen also at an international level by the International Transport Forum (see for example, 2013). *Connecting New Zealand* can be viewed as the document which provides the narrative to *GPS 2011*, particularly for the public; in using human body metaphors attention is called to the ‘appropriate condition’ of the transport system. Here, the backbone represents the critical nature of the infrastructure to the condition of the transport network and by extension, the economy. Therefore infrastructure, particularly as it relates to roads for freight and

people movement by motorised vehicles, is positioned demonstrably as the major concern for the transport sector – and the economy.

The safe system theme aligns with the transport activity by supporting the ‘condition’ of the transport system by ensuring the system is safe for use. Part of this safe system for cycling is concerned with infrastructure - through ‘safe roads’ design (improved intersections, arterial routes, cycling facilities). However, actions are also focused elsewhere, such as, education and skills training (‘Share the Road’, school-based road safety education), and behaviour modifying laws (low speed zones). Beyond the *Safer Journey’s* document, cycling is largely framed within the safe system by means of infrastructure and facilities (for example, cycle lanes, cycle parking, underpasses (Ministry of Transport, 2005)), research and planning into safety issues (such as, AT13: Pedestrian and Cycling improvement investigations (Hamilton City Council, 2010c, p. A.4)), or cycle-friendly policy and strategies (such as, traffic calming speed limits, improved urban design, advocacy, promotion of cycle routes (Waikato Regional Council, 2009)).

Given the overall focus of the key transport policy documents at the national level of government is on infrastructure (NIP, GPS, *Connecting New Zealand*), and funding of land transport (GPS, *Connecting New Zealand*, NLTP), and that these documents influence others (such as, the RLTP and *Integrated Transport Plan*), it is not surprising that much of the reference to cycling is in the context of infrastructure projects, planning, and funding strategies and approaches.

Sustainable Transport

This second grouping of thematic categories reflects a broad view of *sustainable transport*⁴³ and covers the themes relating to multi-modal transport choice, cycling for multiple benefits (including health, environmental sustainability, congestion reduction, social justice), and specifically, utility cycling or cycling for transport. As the keyword search

⁴³ See the evaluative indicators presented in Figure 4, Chapter 2, for an example of a broader treatment of sustainability in transport.

shows, this grouping has a much smaller presence than that of the 'Transport Activity' group (Appendix B).

Utility Cycling, or as it is more commonly described in the documents, cycling for transport, is one of the least used frames. However, while it was infrequently used in an explicit way within the text, it is utilised in an overarching manner in the documents, where the benefits were more often referenced in terms of, sustainability and health. The *GPS 2011* activity class description for Walking and Cycling states "...cycling for transport purposes" (Ministry of Transport, 2011b), and as the GPS informs the bulk of the remaining documents (this is explored more fully in Chapter 5), it is called on in the same way elsewhere. Additionally, the *Getting There* strategy states cycling for transport clearly in their identifying statement and vision: "A strategy to advance walking and cycling in New Zealand transport... Our Vision: A New Zealand where people from all sectors of the community walk and cycle for transport and enjoyment" (Ministry of Transport, 2005, p. 3). So in many respects, the entire document is about 'cycling for transport'. Cycling for transport is within the regional walking and cycling strategy, but is not explicit in their vision where cycling is described in general terms as an activity.

Within this grouping, the most significant and commonly used frame for cycling (across all levels of government) is that of cycling as an option for Multi-modal Transport Choice; this was often additionally framed as a Sustainable Transport option, or a Congestion Solution. For example:

- *Connecting New Zealand* – "The government will: improve modal choice in our main urban areas, so people can make greater use of public transport, walking and cycling, thereby reducing their emissions" (Ministry of Transport, 2011a, p. 32).
- Similarly in the *New Zealand Energy Efficiency and Conservation Strategy 2011-2016* (hereafter *NZEECS 2011*) – "The government will: Continue to fund transport infrastructure to support people to make energy efficient transport choices. This includes encouraging the use of different modes of travel, particularly in urban areas for example, walking, cycle ways and public transport systems, as well

as reducing congestion on the roading system” (Ministry of Economic Development, 2011, p. 19).

Multi-modal transport systems aid social justice through access and mobility (Power, 2012), in particular for those isolated – through physical impairment, low income, distance between housing and work / social services / education – who constitute the transport-disadvantaged. The LTMA identifies the transport-disadvantaged, and defines them as “...people who the regional council has reasonable grounds to believe are the least able to travel to basic community activities and services (for example, work, education, health care, welfare, and shopping)” (Land Transport Management Act 2003, Reprint as at 4 October 2013, s.5(1)) . The legislation goes on to require that in preparing programmes or plans under Part 2 of the Act, the needs of persons who are transport-disadvantaged must be considered. This requirement includes the NLTP (NZTA), along with RLTPs and regional public transport plans (WRC). This provision does not encompass the GPS.

The Access/Mobility framing is most evident in the WRC documents. Importantly, access and mobility form one of nine key outcome areas for the *RLTS* and, as such, flow into both the *Regional Walking & Cycling Strategy* and the *RLTP* in ways both overarching and specific with links to cycling. Walking & cycling are recognised within the *Regional Walking & Cycling Strategy*, as contributing to improved social inclusion and access, additionally the benefit of interventions such as work travel plans, and networked infrastructure also help improve access via cycling (Waikato Regional Council, 2009). Similar to the overarching nature of the utility cycling theme, access and mobility are evident in HCC documents, just not expressly linked to the cycling presence.

In contrast, in central government documents, cycling is framed as a contribution to access and mobility in more specific than overarching ways, as seen below:

- *Connecting NZ* – the roading network is seen as providing access to “...friends, family and employment” (Ministry of Transport, 2011a, p. 9), including by bicycle. The document did not refer to the

transport-disadvantaged or access to health and welfare services, or education.

- *NLTP* – access and mobility, particularly for transport disadvantaged, addressed through investment in transport mode choices – including cycling. (New Zealand Transport Agency, 2012b, p. 42). The NLTP also refers to access and mobility improvements through projects such as the South Western Multi-modal Airport Rapid Transit (SMART) project and the Victoria Park Tunnel.
- *Getting There* – recognises the role of cycling in an integrated multi-modal system that supports access and mobility, “Transport walking and cycling is the use of walking and cycling to provide day-to-day mobility, enabling individuals to access communities, services, desired destinations and opportunities” (Ministry of Transport, 2005, p. 4).

Active Transport is a stronger theme within regional and local government documents, where HCC classes cycling within its transport policy documents as ‘Active Travel’, delivering an action plan for this category. WRC has not only identified cycling as a form of active travel, it has undertaken assessment (Health Impact Assessment) to inform and support its access, mobility and public health transport aims (Waikato Regional Council, 2011). Active transport framing expresses a broader approach to transport, where mode choice supports public health aims. It reflects an integrated approach to transport of the type called for in the literature (Dolan & Geelan, 2010). Active Transport has a significantly smaller presence at central government, although the *NLTP* does recognise cycling as an active travel mode that can also provide health benefits (New Zealand Transport Agency, 2012b).

The theme of Congestion Solution aligns with the framing provided by the aforementioned human body metaphors, as it is calling attention to the “appropriate condition” of the transport system (Kövecses & Benczes, 2010, p. 156). The appropriate condition for the NZ transport system is seen to be one that is efficient (Ministry of Transport, 2011b, p. 6), free-flowing (Hamilton City Council, 2010c, p. F3), with good circulation

(Hamilton City Council, 2010a, p. 15), and clear arteries (Ministry of Transport, 2011a, p. 18). HCC stated consideration must be given to the movement and needs of all transport users, as “Good circulation is the life-blood of any city...” (Hamilton City Council, 2010a, p. 14), while *Connecting NZ*, when speaking of traffic congestion, specified the “...need to make sure that the arteries of our cities do not become clogged...” (Ministry of Transport, 2011a, p. 18).

There is otherwise consistent, rather than frequent, use of the congestion frame across all levels of government. That said, it does take more dominance in central government documents than elsewhere, as illustrated by the *NZEECS 2011* framing its one reference to cycling with reducing congestion and emissions (as quoted in reference to multi-modal theme earlier in this section), and the *NLTP*, which states its “...main priority for this investment [in walking and cycling], apart from safety, is to help relieve severe congestion in the main centres” (New Zealand Transport Agency, 2012b, p. 272).

As the *NZEECS 2011* quote illustrated, reducing congestion is also linked to the notion of Sustainable Transport due to the opportunity to reduce emissions. Cycling is framed as sustainable transport principally as it runs on renewable energy and doesn’t emit pollutants, and in addition, it has minimal land-use for pavement / roading and parking (Pucher & Buehler, 2012b). The framing of cycling for sustainable transport is not significant in specific ways, and like other themes, is more often captured in indirect ways. Within HCC documents, for example, sustainability is acknowledged within their aims for transport (see Appendix C) and referred to throughout their documents. This echoes what the literature demonstrated, that cycling is commonly understood to be captured in understandings of sustainable transport. The manner in which cycling is framed as sustainable focuses on reducing energy use (for example in *GPS 2011*, Ministry of Transport, 2011b, p. 7), reducing emissions (in *Safer Journeys*, Ministry of Transport, 2010, p. 6), being energy efficient (in *NZEECS 2011*, Ministry of Economic Development, 2011, p. 19), or broadly contributing to enabling “environmental sustainability” (Waikato Regional Council, 2012, p. 19).

The framing of cycling to fit a broader sustainable discourse occurred in a range of documents, most predominantly in the walking and cycling strategies and at regional and local government.

Recreational Cycling and Transport

The presence of recreational cycling creates tension with the stated aims for transport (see Appendix C), while confusing the role of cycling in transport and obfuscating utility cycling. As a discursive strategy, the presence of recreational cycling redefines what is understood to be cycling within transport. The inclusion of cycling as a recreational activity is comparable to the inclusion of leisure boating, driving, flying, and train journeys, along with tramping and walking trails, in transport policy – all being principally to do with recreation and/or business activities rather than transport. While some recreational cycling infrastructure could be used for utility cycling, it is not commonly promoted for this purpose⁴⁴, and therefore, cannot be assumed to be used in this way.

When considering recreational cycling in policy documents, the genre of the documents where it is present aids our understanding of the content purpose. The documents in question are all published ‘policy documents’, but created by a variety of institutions and processes, for a diversity of purposes. The sub-genre of the document may, for example, focus on setting the framework for documents at the lower layers of government, or in giving a narrative to the formal policy documents. ‘GPS 2011 in Transport Policy Setting’ (Appendix D) and ‘Current Walking & Cycling Strategies in Transport Policy Setting’ (Appendix E) present frameworks of policy documents illustrating the paths along which discourse is both influenced and reproduced.

Recreational cycling has a presence in documents at all levels of government, with a greater inclusion in the regional and local government documents, but there are differences in these occurrences. The first is relatively straightforward to track. Using genre and intertextuality as our guides, we see that recreational cycling finds a place alongside utility

⁴⁴ See for example the strategic plan for Te Awa River Ride: <http://te-awa.org.nz/about/>, and the vision for the Waikato River Trails <http://www.waikatorivertrails.com/vision>.

cycling from its appearance in the first walking and cycling strategy, *Getting There* in 2005. The diagram set out in 'Current Walking & Cycling Strategies in Transport Policy Setting' (Appendix E) illustrates policy interconnectedness and how a path can be created for the replication of recreational cycling.

Walking and cycling strategies include cycling for both transport and recreation – and in the case of *Getting There*, it is specified in its vision. The strategy describes itself as being “Focused on transport, but supporting walking and cycling for leisure” (Ministry of Transport, 2005, p. 5); this provides the template for how the other walking and cycling strategies are framed. The impetus for creating a specific or integrated cycling strategy is further supplied by the NZTA, as cycling activities seeking National Land Transport Fund (NLTF) funding must be contained within one (New Zealand Transport Agency, 2013b; Waikato Regional Council, 2009). The HCC *Active Travel Action Plan* specifically states that it covers both “...recreational and commuter travel [non-motorised – being principally walking and cycling]” (Hamilton City Council, 2010b, p. 1), but its objectives and targets are more specifically related to utility, rather than recreational, cycling.

The second manner in which recreational cycling is featured is where it is mentioned in specific terms in the *Government Policy Statement on Land Transport Funding 2012/13 to 2021/22* (hereafter *GPS 2011*), and in specific projects in a number of documents (despite funding for the 'Walking and cycling' activity class being *for transport purposes* – see Appendix F). In these instances it is generally in reference to New Zealand Cycle Trails' (NZCT) projects (see for example: *GPS 2011*, Ministry of Transport, 2011b, p. 10; *NLTP 2012*, New Zealand Transport Agency, 2012b, p. 169; *RLTS 2011*, Waikato Regional Council, 2011, p. 133). So, while recreational cycling had a presence since 2005 in *Getting There*, it did not appear with such prominence – that is, in the GPS – until the current government initiated the NZCT project in 2009. The presence of NZCT is an opportunity to highlight an explicitly politically initiated

project by the current government, thereby illustrating the ‘topically political’ (van Dijk, 1997, p. 25) aspect of political discourse⁴⁵.

The literature showed that what is understood of cycling, and cyclists, varies, with Daley and Rissel (2011) revealing a hierarchy of cycling contexts where cycling for recreation was seen in the most positive and acceptable way. While the Daley and Rissel study was Sydney-based, these views appear somewhat consistent with those expressed in NZ⁴⁶. In addition, this hierarchy (in the case of utility cyclists and recreational cyclist) aligns with the numbers attributed to each cycling context in NZ (The Kennett Brothers, 2004). Therefore, including recreational cycling in transport policy discourse demonstrates a way of capitalising on a more popular (and positively viewed) context for cycling, thereby also expanding what is included in the category of *cycling* within transport.

The potential understandings taken from this inclusion of recreational cycling are thus

- Firstly, that recreational cycling facilities could be utilised by those cycling for transport. In creating a ‘*national* cycling network’ – as the NZCT is aiming to be – there is potential to provide safe, off-road, and long-distance routes for cycling for transport. This understanding can be questioned given the lack of evidence for this intent (such as promotion of trails for use in this way), nor indication that this use occurs.
- Secondly, that including recreational cycling assists in meeting the expectation of the audience (both other government bodies and particular interest groups) that *cycling* will be present in transport policy. The expectation exists through the reported aims, goals and objectives of the various transport policy documents. Recreational cycling increases the presence of cycling.

⁴⁵ The NZCT attracted a pre-budget \$8 million boost in 2014 – indicating its continuing political topicality ‘Key pledges 8m cash boost for cycle trail’: www.stuff.co.nz.

⁴⁶ A casual reading of letters to the editor in the Herald and Listener, where recreational cycling is taking place on bike trails and not confused with the road cycling for sport or training.

- Thirdly, by including recreational cycling in the category of ‘cycling’, it allows it to be *counted*, thus funding for recreational cycling contributes to funding for *cycling*. It should be noted, that funding for “Cycle facilities used **purely** for recreational purposes...” (emphasis added, New Zealand Transport Agency, 2013c), is excluded through the NLTP work category for cycle facilities – however, this allows for possible justification by linking to a transport purpose (in most instances this would be long distance commuting).
- Fourthly, recreational cycling is a political strategy, maintaining prominence for the NZCT. This understanding is promoted by recreational cycling making its first entry to the GPS (see *GPS 2011*, Ministry of Transport, 2011b) following the initiation of the NZCT as part of the government’s 2009 response to the global financial crisis (it was not part of either *Government Policy Statement on Land Transport Funding 2009/10–2018/19* – hereafter known as *GPS 2008* or *GPS 2009*, depending on publication date).

With the lack of reference to other recreational activities, the presence of recreational cycling has the effect of redefining *cycling in transport*, rather than expanding what is understood to be *transport*. In addition, the genre indicates the political advantage in including recreational cycling – there is political commitment to the NZCT network, and public opinion is positive towards recreational cycling and, cycle trails in particular. Both genre and intertextuality highlight the replication of recreational cycling from the government strategy through to the local authority.

Summary

This chapter presented the findings from an initial analysis into the presence and position of utility cycling in contemporary NZ transport policy utilising a simple word count for frequency, and the subsequent categorisation into contextual themes. The frequency of cycling gives clues as to its relative presence and prominence in the text, while categorising the context reveals the position of cycling through the use of certain themes. Ultimately, this type of micro-level analysis reveals the

emergence of storylines, and their particular hierarchy, through which the meaning of cycling is understood.

The findings show that utility cycling is commonly captured under 'cycling for transport' terminology, which in turn, is often referred to simply as 'cycling' within the transport policy documents. While 'cycling' is generally referenced to 'cycling for transport' in documents, the presence of recreational cycling has served to redefine this meaning somewhat. Given the appearance of the National-led government's NZCT project in *GPS 2011* and subsequent flow through to other documents, this can be viewed as a political act. The reference to recreational cycling serves no particular purpose in advancing cycling for transport and therefore appears to be a strategy for raising the general prominence of cycling within the documents. Aside from specific references – using the terms above – cycling may also be captured under overarching themes, such as, sustainable transport and active transport. Active transport is a theme most evident in local and regional government documents, and sustainable transport in a minor way at central and regional government level.

Overall, cycling is present at every layer of government, but it has a minimal presence outside of the specific walking and cycling strategies. Across the layers of government, we can observe the following

- Central government documents have the lowest presence of cycling. They frame cycling as a transport activity, which is part of a multi-modal transport system, addressed within the Safe System programme.
- Regional government documents have the same frequency of cycling as local government. They frame cycling in the broadest way using all the themes, but with a focus on cycling as a transport activity as part of a multi-modal system, where cycling for recreation has a presence.
- Local government documents have the same frequency of cycling as regional government, despite not having a broad representation of the themes. This higher frequency is assisted by the level of

detail, including the specification of particular cycling-related activities / projects relevant to the funding period covered. Specific references of cycling as sustainable and aiding access and mobility weren't found. However, this is something that can be considered to be captured in an overarching way. Cycling is framed in these documents as a transport activity, within a multi-modal system, where it is recognised as being a mode of sustainable transport, and this is all part of a Safe System approach to road safety.

Most significantly, cycling is included as a transport activity relating to the provision of infrastructure, planning, and funding of a safe transport system. Particular metaphors illustrate a linking of transport activity (in particular infrastructure) to the economy, demonstrating a storyline evident in the literature (see for example, International Transport Forum, 2013; Lakshmanan, 2011; Talley, 1996).

Finally, it is important to note that cycling is not present in the current *LTMA*⁴⁷, either specifically or under an overarching storyline of 'sustainable transport'. This helps establish a transport storyline in which cycling is marginalised. The emerging storylines are explored further in the next two chapters.

⁴⁷ Refer to Appendix B: Results of Keyword Search & Context Hierarchy: Cycling, for more detail.

5. Positioning of Utility Cycling by the Government in Contemporary New Zealand Transport Policy

This chapter examines how the discursive strategies of government promote a particular way of understanding transport, with particular constructions of problems and solutions, where cycling is positioned as a minor priority. Space is also given to examining more closely the objectives for transport, and the way in which the term 'sustainable' is being utilised to promote certain understandings that fail to promote cycling as a form of sustainable transport.

Discursive Strategies of Power

A close reading of transport policy documents reveals the ways in which certain transport problems and solutions are envisioned when viewed through a particular ideological lens by policy-makers. Genres and processes such as funding, evident in policy documents, embody these problems and solutions, strongly influencing the position of cycling within transport policy. Such positionings represent particular ideologically-driven understandings of what constitute 'good' transport policy and strongly influence the status of cycling within the policy.

Neoliberal Discourse – Setting the Scene

The Minister's foreword in the first GPS of the National-led government made clear the direction for transport policy in NZ.

The government's priority for its investment in land transport is to *increase economic productivity and growth* in New Zealand. Quality land transport infrastructure and services are an essential part of a *robust economy*...Further, the GPS closely reflects the modal choices that are realistically available to New Zealanders. Approximately 70 percent of all freight in New Zealand goes by *road*, and 84 percent of people go to work by car, truck or motorbike, so we need *good roads* to move freight and people. The government supports some mode shift over time, especially in our major cities of Wellington, Auckland and Christchurch, but considers that this should not be accelerated to the point where the outcomes are *economically inefficient* [emphases added]. (Ministry of Transport, 2009a, p. 1)

This statement indicates that roads for the motorised vehicular movement of freight and people, are the *modus operandi* for transport under a National-led government. Further, there is an economic imperative for this priority expressed through a neoliberal emphasis on economic efficiency, development and affordability which are privileged at the expense of broader, integrated transport objectives such as environmental sustainability and health. As Peck et al. (2009) suggest, rather than being an 'ideal-typical' example of neoliberalism, there is a 'process of neoliberalisation', a 'hybridity' to what is observed, influenced in no small part to the socio-political context of the transport sector. 'New Zealand Transport 'Objectives' (Appendix C) illustrate this process through the evolution of the objectives, aims, goals and principles guiding the land transport policy – in particular through the versions of the LTMA and GPS.

In NZ, transport policy documents draw on efficiency and economic growth to make sense of how the transport system needs to serve NZ as a 'trading nation' (Ministry of Transport, 2011a) – an approach which embodies neoliberal assumptions (Fairclough, 1989). Presentation throughout central government documents of the 'traffic congestion' problem (see, for example, Ministry of Transport, 2011a; Ministry of Transport, 2011b; New Zealand Transport Agency, 2012b) is a call to act – while metaphors which relate the transport system to the backbone of the economy, help to legitimate prioritising solutions that assist activities deemed to affect the economy (such as barriers to freight movement, opening-up markets). Thus an emphasis is created for roading, with the level of funding for roading, and the priority given for funding roading activities, evident in the Roads of National Significance (Ministry of Transport, 2009a, 2011b), demonstrating a clear expression of this.

In such an economically-driven policy context, governments tend to invoke a neoliberal 'market model' in order to "...to avoid using its greater power to deal with a problem" (Stone, 2012, p. 324), instead leaving *consumers* to 'regulate' by way of their choices (Stone, 2012). This approach is very much evident in *Connecting NZ* where "Transport consumers" (including individuals and families) are said to exert "powerful influence" through their transport choices "...in determining the shape of the transport system..."

(Ministry of Transport, 2011a, p. 14). So, individuals (may or may not) have the information about the relative benefits of modes of transport and are ostensibly free to choose healthy, environmentally sustainable modes, but à la Dorian Gray, they generally don't (as borne out by mode share statistics, see Ministry of Transport, 2011c; and sustainable vehicle fleet penetration, see Ministry of Transport, 2014b). This is in stark contrast to the economic imperative which is afforded support through extensive roading infrastructure investment – an illustration of the contradictions found in the 'murky reality' of neoliberalism (Peck et al., 2009).

At the same time, changes to the LTMA and government transport objectives since 2009 have progressively marginalised sustainability (Harker et al., 2012), and where environmental concerns are raised or addressed, it is generally in relation reducing congestion, with reducing emissions being a complementary outcome. When addressing emissions directly, technological solutions by way of new fuel technologies and fuel-efficient engines are privileged (in the *GPS 2011* and *NZEECS 2011*). This aligns with a vision for transportation systems based on technological solutions, rather than alternative transport modes such as cycling and public transport (Garrison & Ward, 2000).

Genre – Replicating and Influencing

Genre "...implies not only a particular text-type, but also particular processes of producing, distributing and consuming texts" (Fairclough, 1992b). The policy document GPS is formed by a web of interconnected documents that influence and shape each other in a generally hierarchical way (see Appendix D). The influential discourses flow from central government through to regional and local councils; and while there is a flow of projects from the RLTP to the NLTP, those projects are already informed by the GPS thereby retaining the basic flow of influence from top to bottom. This influence can be transformative, and is particularly evident in the timeframe examined in this study encompassing as it does a change in government.

Fairclough (2003) describes genre chains as genres linked together in ways which are transforming. Genre chains are evident in the

transformation of the policy documents over the duration of the timeframe, where neoliberal framing moved from genre to genre – statutory documents (published by more than one Ministry), to strategic and planning documents, to legislation (not to mention websites, press releases and the like, although they are not the focus of this particular study). Starting with the amended *GPS 2009*, and under the influence of the global financial crisis, a neoliberal framing was introduced particularly through the Minister's foreword and stated priorities. The 2011 documents all demonstrated a greater emphasis in neoliberal values and beliefs. This can be illustrated through the changing objectives (see Appendix C), which at the central government level ended in the 2013 amendment of the legislation to align with the statutory documents.

The GPS were required to be "...consistent with any... national land transport strategy..." (Land Transport Management Act 2003, Reprint as at 2008, 1 August, s.87). However, the amended *GPS 2009* set the scene for the removal of the national land transport strategy (NLTS) through what could be read as a nullifying statement. In the statement the government acknowledged the current NLTS (*NZTS 2008*), but distanced itself from its aims and stated it would be developing a plan of its own over the next three years (Ministry of Transport, 2009a, p. 11). *GPS 2011* and the accompanying document, *Connecting New Zealand*, did not reference *NZTS 2008* at all, and as Harker et al. state, showed not only a "...lack of consistency with the [purpose of the LTMA, but]... suggests an attempt by the executive branch of government to develop policy contrary to the statutory direction set by Parliament" (2012, p. 336).

This indicates the National-led government positioning the GPS into a place of dominance within the transport landscape, an observation borne out by the amendment of the LTMA in 2013 (Land Transport Management Act 2003, Reprint as at 2013, 4 October). The amendment better aligned the Act with the government's preferred direction for transport (as signalled in the GPS and elsewhere), with a change in objectives removing sustainability imperatives, and the place of social and environmental responsibility. In addition, the amended *LTMA 2013* has

strengthened the power of the GPS by repealing the requirement for preparation of the RLTS and a NLTS.

The progression of the transformation through the genres in the chain highlights how particular genres can be more readily transformed. The 'Current Walking & Cycling Strategies in Transport Policy Setting' (Appendix E) illustrates this through the number of amended, superseded, reviewed, or removed documents still relevant to current regional and local government policy. Harker et al. (2012), question the legality of such progression, particularly in regard to how the *GPS 2009* shifted priorities while still under the requirement to be consistent to the *New Zealand Energy Efficiency and Conservation Strategy* (hereafter *NZEECS 2007*) – which is quite different to its successor – and the LTMA prior to the 2013 amendments.

Where it might be expected to see a greater emphasis on cycling as a sustainable mode of transport – in being energy efficient and non-green-house gas emitting - the *NZEECS 2011* does not serve to strengthen the inclusion of cycling as a contribution to sustainable transport. Rather, it focuses on technological advances for engines and fuels to reduce emissions. This narrowed focus is in stark difference to the previous strategy, as evident in the quotes below:

- *NZEECS 2007* – produced by EECA, printed on recycled paper with vegetable based dyes, under Minister of Energy (no mention of the MED as the then overarching ministry), with the objective for transport:
 - “To reduce the overall energy use and greenhouse gas emissions from New Zealand’s transport system”.
- *NZEECS 2011* – outright MED (now Ministry of Business, Innovation and Employment, MBIE) production, under the Minister of Energy and Resources , with the objective for transport:
 - “A more energy efficient transport system, with a greater diversity of fuels and alternative energy technologies” (Ministry of Economic Development, 2011).

Intertextuality exists, not only through direct reference to other documents (in particular the GPS, but through the use of other voices. According to Fairclough, the intertextuality of a text is “the presence within it of elements of other texts (and therefore potentially other voices than the author’s own) which may be related to (dialogued with, assumed, rejected, etc.) in various ways” (Fairclough, 2003, p. 218). An illustration of how this demonstrates the author’s attitude toward an ‘other’ perspective is captured in the foreword to *Connecting New Zealand* by the Minister. He writes, “Eighty-four percent of the trips that we make as individuals are by motor vehicle... We also recognise the role that walking and cycling play for many New Zealanders” (Ministry of Transport, 2011a, p. 2). In this text the Minister identifies an ‘inclusive’ we that is inclusive of the writer and reader (Fairclough, 1989, p. 127), through which the reader identifies as part of the motor-vehicle using trip-takers group. Further in the text the reader is able to identify a group of *other* New Zealanders – those for whom walking and cycling play a role. This positions cycling as something that we are less concerned with.

Where it appears, there is evidence of some agreement and replication of the meaning of ‘cycling’. However, how it is invoked or framed within the documents varies (as examined in the previous chapter). Certainly the inclusion of recreational cycling has been accepted and reproduced through all levels of government, as seen in ‘Results of Keyword Search & Context Hierarchy: Cycling’ (Appendix B). For central government, irrespective of cycling’s benefits - which, while not always recognised and certainly not fully utilised, are not denied - it is overtly positioned as a marginal activity. While this is currently less the case at regional and local levels, the power to constrain through the transformative influence of the genre chain is effectively exploited through the funding strategies in use.

Funding – Enabling and Constraining

The most effective strategy used by the government to influence transport outcomes is through what it chooses to fund. With regard the GPS, there are two aspects to this: the categories for fund allocation (activity classes), and the monetary sum (or range) allocated. Legitimizing the pursuit of

roading for motorised transport – as evident through the discourses of project prioritisation, funding, and framing – occurs through two chief calls to act, which influence the activity classes and their funding allocations.

The calls to act are:

- Support *economic growth* – to do this we must *reduce congestion*, ensure freight is able to move more efficiently through the network (see, for example, Ministry of Transport, 2011a; Ministry of Transport, 2011b).
- *Improve safety* across the network – to do this we prioritise ‘safe roads and roadsides’ and a range of actions aimed at drivers of motorised-vehicles (see, for example, Ministry of Transport, 2010).

The activity classes over the publication history of the GPS have changed to reflect the narrowing priority of motorised land transport over broader transport objectives. As shown in ‘GPS 2011 Activity Class Definitions’ (Appendix F) nearly half the activity classes are roading related. The approach to rail funding has been one of the most changeable, currently attracting significant investment from outside the NLTF through crown appropriation (Ministry of Transport, 2011b, p. 16). It is also interesting to note in the *NLTP 2012* (New Zealand Transport Agency, 2012b, p. 17), that rail infrastructure funding is included under ‘public transport’, but it is not clear whether this reflects actual rail network usage, i.e., of greater passenger movement than freight.

Other changes have included the removal of sea and rail freight related activities (2011), a combining of sector training and research (2009), and of funding allocation system and performance monitoring (2009). The removal of the activity class ‘Demand management and community programmes’ (in 2009, see Appendix G) is part of the move away from broader sustainability aims. ‘Highlighted Activity Class Changes’ (Appendix G) also shows the Walking and Cycling activity class definitions which, despite the narrowing of focus to infrastructure concerns demonstrated elsewhere, continues to recognise promotional activities aimed at increasing the use of these modes for transport purposes. While this inclusion of promotional activities is recognised, it is with an awareness that there is no accompanying work category through which to

fund them, as the *NLTP 2012* work category⁴⁸ for cycling (452 - cycling facilities) in the Walking and Cycling activity class does not include promotional activities as qualifying activities (New Zealand Transport Agency, 2013c). Nor are they particularly evident in the alternative category 432: Promotion, education and advertising (which is principally for Road Safety Promotion). The funding approach illustrated is skewed toward the provision of facilities when promotion and behaviour change activities can bring significant results (Koorey, 2011) – avoiding the fallacy of ‘build it and they will come’ (Pucher & Buehler, 2012c).

The way in which cycling is presented in the activity class and funding tables illustrates with clarity its marginal status. Not only does the activity class combine with walking, but, to call on an accounting concept, the amounts (or ranges) presented are almost immaterial⁴⁹ in the context of the investment pool and in comparison to the roading classes. However, it is possible with integrated planning to secure money within these other classes to provide for cycling. This appears to have been a strategy employed with some success – particularly as the *NLTP 2012* indicates it expects to additionally spend an approximate “...\$80 million on walking and cycling facilities integrated into other projects” (New Zealand Transport Agency, 2012b, p. 272).

The funding numbers at central government align with the narrative positioning of cycling as a minor priority for transport as evident in the *GPS 2011* (Ministry of Transport, 2011b) funding allocations for ‘Walking and Cycling’:

- Cycling (in conjunction with walking), receives 0.5% of the total transport fund⁵⁰ for 2011/12, which is second smallest⁵¹ of any

⁴⁸ For funding through the NLTF, activities are classified into work categories, which are then organised into activity classes. Work categories are defined in a practical way so that minor operations, maintenance or renewal activities are sometimes included in other work categories to facilitate efficient assessment, programming and delivery of activities.

⁴⁹ Materiality is a concept within accounting relating to the importance or significance of an amount.

⁵⁰ Calculated both on the Activity Class Funding (11/12 allocation) in the *GPS 2011*, and the Investment Levels by Activity Class (2012-15) in the *NLTP (2012)*.

⁵¹ ‘Sector Research’ attracts the smallest funding allocation of the activity classes.

transport activity class in *NLTP 2012*; in contrast 75% is allocated to the combined national and local roading activity classes.

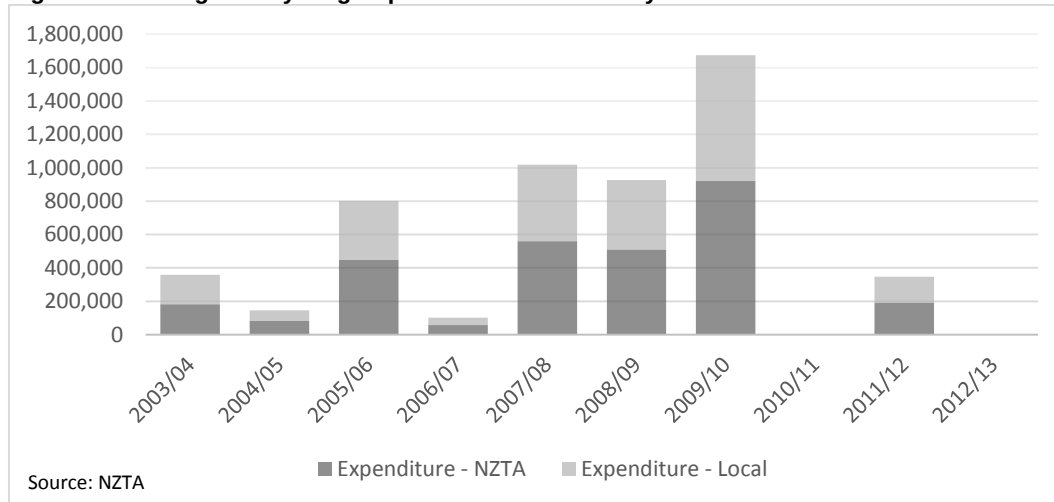
- For 2012/13 the funding range sees 60% of the potential maximum allocation as 'vulnerable' (that is, not 'secure' as the minimum funded amount is).

At a national level funding numbers are presented in such a way that they are inconsistent with each other, confusing the reader as to the actual amounts. For example, in *At a Glance: National Land Transport Programme 2012-15*, it states "This NLTP is investing \$79 million specifically walking and cycling activities [sic]" (New Zealand Transport Agency, 2012a, p. 12), while *NLTP 2012* itself specifies \$53 million (New Zealand Transport Agency, 2012b, p. 17). The difference is the unidentified local funding share of \$26 million made by local authorities (New Zealand Transport Agency, 2012c). Elsewhere, a single figure for new and improved infrastructure was used, combining walking and cycling with roading, which is at best misleading when analysis of the investment levels by these activity classes reveals cycling and walking contribute a mere one percent to this total⁵².

The impact of the central government funding regime is clearly illustrated for Hamilton City in Figure 7 - where funding wasn't gained from NZTA, no local expenditure occurred. With very few exceptions, this is replicated across the local authorities, see 'Cost of Walking & Cycling Activities' (Appendix H) for more data.

⁵² For the combined figure see, 'At a glance: National land transport programme 2012-15', New Zealand Transport Agency, 2012, p.3.; and for investment by activity class see, 'National land transport programme 2012-15' [PDF], New Zealand Transport Agency, 2012b, pp.16-19.

Figure 7: Walking and Cycling Expenditure Hamilton City



The *Regional Walking and Cycling Strategy* acknowledges the responsibility for providing ‘local share funding’ (through rates) towards walking and cycling modes (Waikato Regional Council, 2009, p. 7). However, it is clear that central government funding has a significant impact on the choices to engage in these projects, as the *RLTP 2012* highlighted a downturn in walking and cycling projects submitted by local authorities as a consequence of the “...limited funding available from the NLTP...” for them (Waikato Regional Council, 2012, p. 31). The literature agrees that the constraints imposed by funding are an issue, with Harker et al. (2012) stating “...the GPS funding ranges severely curtail the ability of communities to pursue land transport objectives which do not align with that of central government” (p. 347). *Connecting New Zealand* provides a narrative in conjunction to the constraint with regards cycling funding through the mechanism of model communities⁵³, of which the government will develop more of “...as funding allows” (Ministry of Transport, 2011a, p. 30).

Exploring the narrative further exposes constraints for improving cycling mode share within funding discourse (the words and the numbers). The Minister’s foreword in *GPS 2009* supports “...some mode shift [from motorised transportation] over time...” (Ministry of Transport, 2009a), particularly in Auckland, Wellington and Christchurch. Given this

⁵³ Model communities are urban environments where walking or cycling is offered to the community as the easiest transport choice; this approach encourages planning and investment in a way that fully integrates walking and cycling in the transport network.

expressed priority to the three major cities, it is interesting that the chosen 'model community' approach to walking and cycling (with its strong emphasis on integrated transport planning) has not been developed for these cities, despite the difficulties presented by the large and complex environments. This is not to say the cities don't attract any funding for public transport and walking and cycling, but the focussed approach offered by the model community approach would seem to offer value for money and mode share growth, which would be welcome outcomes for where our greatest population resides.

Objectives for Sustainable Transport?

For cycling to be present in transport policy, it must contribute to the objectives for transport outcomes. Utility cycling provides a number of benefits, and therefore has application against varied transport objectives. However, it is most typically used to support an objective of sustainability. This section examines the NZ transport objectives, the use of sustainability and its positioning of cycling.

Transport 'Objectives'

The NZ government has outcomes it seeks for transport; these are expressed through a variety of means and terminology, including, objectives, purpose, goals, priorities, visions, and outcomes. The current terminology and content for the road transport system in NZ policy are captured in 'New Zealand Transport 'Objectives" (Appendix C).

There is a shared understanding of some aspects of transport, such as, moving people and freight for the purposes of getting from point to point – this is seen across the majority of policy documents. There is also, within some narrative and objectives (particularly from regional and local councils), a shared understanding of transport having a broader purpose – such as environmental, social, and health aims. However, the discursive strategies (of framing and funding) of the national documents restrict the action that can be taken.

What is most noticeable in examining the transport 'objectives' across both the timeframe of the study and the documents in it is the lack of

consistency between the GPS produced in 2009 and 2011, and the LTMA as it was at those times. While *GPS 2011* refers to the Act's transport system aim in an appendix on the LTMA, it effectively obscures it by introducing a 'transport goal' for "...an effective, efficient, safe, secure, accessible and resilient transport system that supports the growth of our country's economy in order to deliver greater prosperity, security and opportunities for all New Zealanders" (Ministry of Transport, 2011b, p. 6), at the beginning of the document. This 'goal', structured in the same way as the 'aim', retains a similar structure while changing some of the language (particularly that connected to a sustainable transport ideology, such as, sustainable, and integrated) through an introduction of adjectives more in keeping with a neoliberal ideology, such as efficient, (economic) growth, and economy.

In needing to remain consistent with or follow the GPS, it is notable that NZTA, WRC, and HCC documents make use of the LTMA aim (pre-2013 amendment, see Appendix C, for relevant aims and objectives). Although the GPS objectives relevant to the period are not ignored within the documents, the use of the LTMA objective illustrates the broader approach preferred. The objectives within WRC / HCC documents also reflects their need to consider other strategic, legislative and policy documents such as their long term council community plans.

As noted by HCC (Hamilton City Council, 2010c, p. 2), tensions can exist in delivering transport objectives (particularly in the short-term). A strategy for the direction of transport, which contributes to the wider aims of the country, region, or city, assists in ensuring that outcomes are consistent with this in the long-term. The importance of both strategic and integrated planning for transport outcomes is supported by a previous study which

...argues that strategic district plans are necessary to achieve a long-term transformation towards more sustainable transportation. The measures necessary to achieve this aim involve projected changes in land-use patterns and provision for alternatives to the private car. To be effective, a strategic plan must identify these shifts as performance objectives. (Jay & Morad, 1997, p. 29)

This raises concerns for the achievement of transport outcomes that serve the longer-term needs of the country, particularly following the removal of the necessity for both the NLTS and RTLS (Land Transport Management Amendment Act 2013). In addition, the Amendment Act 2013 removes all requirements to meet the five previous transport objectives in the preparation of the GPS. The GPS is not subject to the same consultation in its creation as the now defunct NLTS was; this is a move away from local and regional influence and demonstrates a strengthening in central government power over transport priorities.

Sustainable or *sustainable*?

The definition of sustainable used by the NZTA in the following example demonstrates the varied usage of the term:

Sustainable: Assessment of all activities and combinations of activities under the effectiveness factor of the NZTA Investment and Revenue Strategy and included in the NLTP considers sustainability in terms of their contribution to the purpose and objectives of the LTMA and how enduring are their benefits. (New Zealand Transport Agency, 2012b, p. 42)

Using the Oxford Dictionary definition, we can say activities are sustainable when their contribution is “able to be upheld or defended... [and their benefits are] ...able to be maintained at a certain rate or level” (Oxford Dictionaries, 2014). So, the above example is a valid application of the word ‘sustainable’, but a further definition states that sustainable is also “Conserving an ecological balance by avoiding depletion of natural resources” (Oxford Dictionaries, 2014). Therefore, the reader is likely confused as to the meaning of sustainable in the *NLTP 2012* (and elsewhere), given that the section on ‘Minimising Environmental Impacts’, refers to the GPS aims of contributing “...to achieving “an affordable, integrated, safe, responsive and sustainable land transport system”, including ensuring environmental sustainability” (New Zealand Transport Agency, 2012b, p. 302).

Confusion is only enhanced when the reader realises the current *GPS 2011* (to which there is a hyperlink) does not, in fact, even have the aim described in the quote – only *GPS 2008* (Ministry of Transport,

2008a) did - regardless that the LTMA required that the GPS must contribute to this particular aim until the *Land Transport Management Amendment Act 2013*. It would seem that usage of the term sustainability in the National-led government produced transport documents serves generally to mean sustainable in the sense of ‘maintaining at a certain rate or level’. And given the lack of concrete targets and generally cursory dealing with environmental sustainability issues (see Harker et al., 2012, for more on this), the term also serves as an ambiguous and judiciously (even cynically) used association to environmental sustainability.

Finally, although now much less explicit in its obligation, the *LTMA 2013* still requires the NZTA to operate “...in the public interest... [and] exhibit a sense of social and environmental responsibility” (Land Transport Management Act 2003, Reprint as at 2013, 4 October, s.94 & s.96(1)(a)). This introduces ‘the public interest’ as an alternative terminology through which to address environmental sustainability. Elsewhere, a document published as part of the Funding Assistance Rates (FAR) review, while generally following the *GPS 2011* objectives for land transport, included the word ‘responsible’, then noted “A responsible transport system addresses the potential harms of that system, including environmental and health impacts” (New Zealand Transport Agency, 2013a). This definition of a responsible transport system provides an additional space within which to address broader transport aims.

Summary

For many, cycling for transport is not seen as a social norm (Muggeridge, 2012; Waikato Regional Council, 2009), and in fact, access to a car is characterised in NZ as a basic deprivation-related variable (Atkinson, Salmond, & Crampton, 2014). This dominance of the car as a private mode of transport is so useful it was emphasised twice by the Minister of Transport – by stating that eighty-four percent of trips made by individuals are by motor vehicle (see the forewords in Ministry of Transport, 2009a, 2011a). The National government’s priority for roading aligns with the public’s desire to drive motor vehicles as their mode of transport; whether individuals wholeheartedly accept the government’s reasoning or not, the

outcome is desired – an example of political discourse in line with current public interest (Schmidt, 2001).

The neoliberal discourses that emerged in the National government's first GPS have developed a way of framing land transport which foregrounds economic objectives (e.g. economic growth and efficiency) and issues (e.g. congestion) with a narrow range of specific solutions (e.g. building roads), while backgrounding broader transport objectives (e.g. environmental sustainability), issues (e.g. carbon emissions), and alternative solutions (e.g. increased mode share such as cycling for transport). While the wider context of the initial National government *GPS 2009* was placed in the period of the GFC, it was also while NZ had binding targets to reduce greenhouse gas emissions during the first commitment period of the Kyoto Protocol⁵⁴ (targets which are still to be met).

This chapter is an illustration of how power ignores and suppresses knowledge which doesn't serve its aims (Flyvbjerg, 1998). The GPS has been positioned in a place of power, dominating the contemporary transport policy environment. The National government has achieved this through the progressive advancement of a neoliberal approach in land transport policy, transforming aims, objectives and funding approaches throughout genre chains. These practices have restricted activities to include only those that fit the priority categorisations, as well as restricting sources of influence by eliminating certain genres and their documents altogether.

In this examination of the government's positioning of cycling in contemporary transport policy, we can draw a range of conclusions. Firstly, the government has eliminated much of the transport strategy development (by removing NLTS and the RLTSs), leaving the approach to investment (via the GPS) as the dominating influence in land transport policy and activity. Guiding the objectives and priorities of that approach

⁵⁴ First commitment period was 2008-2012. New Zealand is still obligated to meet its targets from this period: <http://www.mfe.govt.nz/issues/climate/international/kyoto-protocol.html>.

to land transport investment, are neoliberal values and beliefs, which through genre chains have successfully transformed the transport policy documents to reflect the economic imperative.

Secondly, funding allocations made in the *NLTP 2012* position cycling (and walking) as a low priority transport activity, while the variety of presentations of funding allocations for cycling is confusing and misleading. In addition, the approach to allocating funding for cycling has a constraining effect on local authorities for undertaking cycling-related work outside the NLTF. Analysis showed that the government has instead prioritised a programme of building road infrastructure, to support economic growth and as a solution for congestion, despite evidence to its lack of efficacy (Downs, 2003; Duranton & Turner, 2011; Stopher, 2004).

Finally, objectives for transport are inconsistently defined, and, through their progressive narrowing at central government level, are further marginalizing transport activities such as cycling. This narrowing of objectives is in part through the restricted meaning applied to sustainability – particularly within central government documents – where it is shown to have increasingly moved away from environmental sustainability, thereby further reducing opportunities for promoting utility cycling.

6. Regional and Local Government Positioning of Utility Cycling in Contemporary New Zealand Transport Policy

This chapter examines the policy documents of WRC and HCC to consider how the particular setting of regional and local government influences their broader approach to land transport and utility cycling. It analyses how integrated planning is undertaken by the councils, and its influence on objectives for transport policy. The chapter concludes with an analysis of how the councils challenge the central government approach to land transport policy.

In setting out the context for the current walking and cycling strategies (Appendix E), it is evident the setting has some clear differences to that of the GPS (Appendix D). The setting for the strategies differs in that it includes multiple influencing documents at many levels of government, which create complex policy influences that intensify as we go lower down the level of government. In addition, the planning, consulting and ratifying of regional and local government documents occurs over a much longer period of time than at central government. As a result, many of the contributing and influencing documents have been superseded or are obsolete. Even with the complexity of this setting, greater integrated planning and the retention of broad objectives for transport has enabled WRC and HCC to provide greater prominence for cycling than central government.

Waikato Regional Council Policy Documents

A review of the 'Current Walking & Cycling Strategies in Transport Policy Setting' (Appendix E) shows that WRC has three primary transport policy documents, the *RLTS 2011*, *RLTP 2012*, and *Regional Walking & Cycling Strategy* (2009). As demonstrated earlier (Chapter 4), these documents consistently frame cycling in the broadest way across the three levels of government, with a strong focus on delivering a multi-modal system that responds to a range of objectives. Utility cycling is positioned as a contributor to that system.

The development of a cycling (and walking) strategy supports the council in fulfilling its role in providing support and guidance to local authorities in the implementation of activities supporting cycling for transport.

Additionally, it supports a number of the outcomes the council seeks from transport – including integrated transport planning, access and mobility, public health, and environmental sustainability (see full list, Appendix C).

The *Regional Walking & Cycling Strategy* meets much of what is identified as best practice (Macbeth et al., 2005) and was set to be reviewed with the RLTS (Waikato Regional Council, 2009, p. 6). As preparation of an RLTS has been repealed, it places the *Walking & Cycling Strategy* (and its targets) at some risk of going by the wayside – unless WRC puts efforts in place to review it independently or in conjunction with, for example, the LTCCP.

The long term impact on transport strategy and planning for WRC through the RLTS repeal is not yet clear. Only time will tell how the central government's pull back from walking and cycling, and sustainable transport outcomes, will affect the direction taken in future WRC transport policy documents. The commitment and investment towards a transport approach that supports utility cycling, as demonstrated in research and projects such as a complementary investigation into the costs of physical inactivity (Auckland Council, Waikato Regional Council, & Wellington Regional Strategy Committee, 2013), and the survey of cycling activity on rural Waikato roads for the purpose of better informing policy and investment decisions (Traffic Design Group TDG, 2014), suggest that a broad approach is still feasible.

Hamilton City Council Policy Documents

HCC has developed seven key collaborative strategies⁵⁵ for the city and features transport aspects in all but three of them:

- Hamilton Arts Agenda
- Access Hamilton Strategy – principal transport strategy

⁵⁵ As taken from <http://www.hamilton.govt.nz/our-city/city-strategies/>.

- Economic Development Agenda – growth planning through transport systems; transport services infrastructure investment
- Social Well-Being Strategy
- Sustainable Hamilton – transport contributes to one of three priorities for this strategy – reducing our impact on the environment
- Active Hamilton
- Hamilton Urban Growth Strategy (HUGS) – the impact of urban design on transport infrastructure and mode choice

It could be argued that the Social Well-Being Strategy has missed an opportunity by omitting transport from its strategy and action plans – cycling is a feature of many of the world’s most liveable cities and is also a low cost, environmentally friendly mode of transport for city residents to access services and to ‘connect communities’. Additionally, although the annual cycling cordon count is included as one of the progress measurements in the Active Hamilton strategy, there is no mention of active transport as an opportunity for residents to engage in physical activity. This would have fitted particularly well under the “People are Active” priority, but the strategy fails to recognise the advantages of incorporating physical activity into everyday activities.

The findings presented earlier show cycling is present in HCC policy documents in much the same frequency as found in WRC documents (Chapter 4. Thematic Positioning of Cycling in Contemporary New Zealand Transport Policy. Like the regional council, HCC has a focus on delivering cycling as a sustainable mode of transport within a multi-modal system.

Integrated Planning

The literature called for “...transport policy which considers mobility in an integrated, holistic fashion, rather than merely as a dimension of economic growth” (Goulden et al., 2014, p. 139), and considered an integrated approach to transport generally, and cycling specifically, the most likely way to result in increased numbers cycling (Pucher & Buehler, 2012a). Examples of an integrated and holistic approach are seen in the *RLTS 2011* with policy integration for land use, the Regional Policy Statement, public health, and environmental sustainability (Waikato Regional Council,

2011); and *Access Hamilton* for its commitment to integrated planning best practice, towards local, regional and national priorities (Hamilton City Council, 2010c). An integrated approach is also evident in the visions described by both documents (see Appendix C). Also in evidence within NZTA documents are references to an integrated approach (particularly in relation to specific projects such as the South-Western Multi-Modal Airport Rapid Transit (SMART) strategy), and delivery of cycling activities investment via integration with other activity classes is featured (New Zealand Transport Agency, 2012a).

As has been discussed previously, there are opportunities to integrate planning for some health and transport objectives, which can occur through safety. The safety of the transport system goes beyond addressing road accidents, with significant numbers estimated to be killed prematurely by vehicle emissions – and, due to current monitoring methods, this is likely to be under-estimated⁵⁶. In 2006 that was estimated at 256 premature deaths, with a social cost of \$912m (Kuschel et al., 2012); this compares with a road toll of 393 fatalities for the same year⁵⁷. The omission of vehicle emissions as an issue for a safe transport system was challenged during consultation for the *Safer Journey's Strategy*:

The omission of the costs of vehicle emissions, greenhouse gas emissions, and future energy price rises from the strategy is striking for a document so concerned with economic efficiency. We submit that “safety” be broadened to include vehicle emissions, including greenhouse gas emissions. (Unidentified submission, Ministry of Transport, 2009c, p. 12).

Indeed, the omission is a missed opportunity for the promotion of cycling as a non-greenhouse gas emitting mode of transport, and potentially a way to reduce individual exposure to traffic pollutants⁵⁸. This is particularly

⁵⁶ NO₂ and PM_{2.5} emissions are currently not being robustly assessed – motor-vehicle emissions contribute to both these categories.

⁵⁷ See www.transport.govt.nz for annual road toll historical information.

⁵⁸ Debate exists about comparative levels of exposure to traffic emissions; some work suggests exposure is less for cyclists (Koorey, G. (2004). Every breath you take (effect of pollution on cyclists). *Chainlinks Magazine*, 38-40. Retrieved from <http://can.org.nz/system/files/CL-2004-02-Feb-Mar.pdf>), and others less for motorists (Zuurbier, M., Hoek, G., Oldenwening, M., Lenters, V., Meliefste, K., van den Hazel, P., & Brunekreef, B. (2010). Commuters' exposure to particulate matter air pollution is affected by mode of transport, fuel type, and route. *Environmental Health Perspectives*, 118(6),

relevant for cities like Hamilton, where higher than average levels of greenhouse gas emissions from transport impact on population health⁵⁹ (Kuschel et al., 2012).

While going further than central government in acknowledging the health impact of emissions from transport (Hamilton City Council, 2010a, p. 12), HCC does not address this significantly – by way of targets, or direct policy actions – in any of their transport policy documents. Where emissions are addressed, it is usually in more general and overarching ways through attention to environmental impact and efforts to provide alternatives to motorised transport – and it is through this approach that cycling is presented. In contrast, WRC draws the strongest links between transport, emissions and health and sets a public health outcome against several targets – including uptake of active modes (including cycling) and levels of transport-related emissions (Waikato Regional Council, 2011, p. 33). By having specific outcomes and targets such as these, WRC have created the greatest impetus of any government organisation for increasing utility cycling.

Synergies between integrated land use, access, mobility, public health, environmental sustainability, and safety are identified by WRC and are evident in their regional policies and actions (Waikato Regional Council, 2011, p. 71). The Health Impact Assessment (HIA) undertaken on the *RLTS 2011*, illustrates a commitment from WRC to an integrated approach serving broad transport objectives. This coupled with involvement in research investigating the costs of physical inactivity, adds further impetus to the need for an integrated transport plan which supports active transport choices (Auckland Council et al., 2013). Given the already consistent framing of cycling as ‘active transport’ at WRC and HCC level, it is interesting to note that the latest GPS, the *Government Policy Statement on Land Transport 2015/16-2024/25: Engagement draft* (hereafter *GPS*

783-789. doi:10.1289/ehp.0901622). There are many variables (traffic density, fuel type, time travelling) affecting the results.

⁵⁹ Transport emissions have the highest health impact from any source in Auckland city. Hamilton city is one of several urban areas where the health impact of transport emissions is greater than the national average.

2015 (Draft)) now also categorises walking and cycling as 'Active Modes' (Ministry of Transport, 2014a). It remains to be seen if this categorising signals an intent for transport to deliver health outcomes.

Examples of integrated planning in action are evident, such as the SMART strategy mentioned earlier. Examples of transport integrated into urban planning can also be found, for example, in HCC's plan for the development of a 'town centre' for the north east of the city which considers transport and land-use in synergy with its transport objectives (Hamilton City Council, 2012a, pp. 3-23). Despite this, there are continued pressures which subvert advances to integrated planning, as shown in a recent article which highlighted moves to close neighbourhood playgrounds in favour of 'destination playgrounds' – moving more amenities outside of walking and cycling distances (Lewis, 2014). This article demonstrates the need to be aware of what is being put into action and to consider the ways in which government power can be challenged.

Creating Space for Change – Challenging Power

Contemporary transport policy discourses, 'invested' in neoliberal values that privilege an economically driven motor-vehicle approach, can be 'reinvested' (Fairclough, 1992a, p. 67) with sustainable transport values, demanding an integrated, multi-modal approach that prioritises utility cycling. Despite the differing applications of the term sustainability (and use of other terminology such as 'responsible'), there is a persistent focus on environmental sustainability outcomes, as shown through thematic positioning (see Chapter 4), and objectives and outcomes sought (see in particular, WRC and HCC in 'New Zealand Transport 'Objectives'' (Appendix C). While cycling is often framed in an overarching manner as environmentally sustainable, it can be positioned much more overtly as a contributor to these outcomes.

Environmental sustainability is not all that can be 'invested' in transport discourse, as the active transport values that feature in WRC and HCC policy show. The government has no health goals for transport other than the associated benefit provided by reducing emissions, which is itself a side effect of the aim to reduce congestion. The notion of active transport

may be gaining some small amount of traction as the *GPS 2015 (Draft)* refers to walking and cycling as 'active modes' (Ministry of Transport, 2014a). Importantly, outcomes for these alternative values can promote the integration of cycling within other transport projects, thereby building on the existing \$80m spend outside of the walking and cycling activity class in *NLTP 2012* (New Zealand Transport Agency, 2012b, p. 272).

Within WRC documents in particular there are challenges to government priorities and approaches, predominantly around funding approach and amount (Waikato Regional Council, 2009, p. 32; 2011, p. 58; 2012, p. 31), and support for alternative transport modes (Waikato Regional Council, 2012). Likewise, WRC have highlighted the power and influence of the Minister of Transport through the GPS (Waikato Regional Council, 2011, p. 148), and the need for the Regional Transport Committee to be advocates for greater funding for alternative transport modes such as cycling (Waikato Regional Council, 2011, p. 73).

As discussed previously, cycling is not considered a social norm in NZ (Muggeridge, 2012), and central government uses that fact to legitimate its policy privileging motorised vehicles. In contrast, local and regional government are constrained by that view of cycling, which is further exacerbated by the lack of funding, and lack of emphasis on promotional and educational activities, which are key to change the public perception of cycling and improve driver awareness of cyclists (Koorey, 2011). These constraints are demonstrated by the adverse reaction to HCC attempts to introduce traffic-calming measures⁶⁰ which is a recognised method for improving safety for cycling and walking. The project generated negative responses from the public (demonstrating the type of entrenched positions mentioned in the introduction to this thesis) and a mixed response from the Automobile Association (Automobile Association, 2013), resulting in a halt to further implementation pending a review of the policy (Leaman, 2014). This is unfortunate as where traffic calming was introduced, 29% of respondents to a residents' survey indicated they were more willing to

⁶⁰ As part of a national demonstration project with NZTA and the Road Safety Trust – see <http://www.saferspeedarea.org.nz/>.

walk and cycle in the area as a result (Hamilton City Council, 2012b). This illustrates a need for greater promotion, education, and consultation surrounding changes to policy in order to 'bring people on board'.

Consultation processes with the public and stakeholders also bring evidence of challenges to what is presented as 'common knowledge'. For example, some submissions to the *Safer Journeys* discussion document criticised it for the assumptions made about what constitutes safety in transport (as the earlier example regarding vehicle emissions illustrated), and how it conceptualised the transport system by failing "...to consider cycling, walking, and passenger transport as being integral parts of the system" (Unidentified submission, Ministry of Transport, 2010, p. 8). These submissions challenge what Fairclough (1989) recognises as assumptions embedded in particular conventions – in this case, conventions about road safety and the transport system.

In addition to making submissions on policy, groups and individuals are able to challenge perspectives on cycling and approaches to planning for cycling, as well as drive local and national action (often in partnership with some of the institutions in this study). The following list gives examples of how these groups⁶¹ use a variety of means through which to challenge the norms and create space for change.

- Frocks on Bikes - encouraging women to cycle for transport by promoting cycling in everyday clothes
- Move60 - encouraging and motivating teens to ride through use of an app and bike giveaways
- Bike On New Zealand Charitable Trust - encouraging school children to cycle through Bikes in Schools programme, and development of school-based cycle tracks
- Cycle Advocates Network - working (often through transport working groups) with government and local authorities for better cycling environments

⁶¹ Weblinks: <http://frocksonbikes.wordpress.com/>, www.move60.co.nz, <http://www.bikeon.org.nz/>, <http://can.org.nz/>, <http://www.ipenz.org.nz/>, <http://www.sportwaikato.org.nz/>, and <http://www.rcaforum.org.nz/>.

- Institution of Professional Engineers New Zealand (IPENZ) - support and disseminate research and best practice particularly relating to cycling infrastructure
- Sport Waikato – promoting cycling as an active form of transport (and a recreational pursuit), encouraging ‘green prescriptions’⁶²
- Road Controlling Authorities Forum – assisting road controlling authorities to make informed decisions, including for cycling, through for example, the National Cycling Signs and Markings Working Group

Summary

The findings show how regional and local government have positioned cycling more strongly than central government. They have done this by using broader themes to frame cycling within transport policy documents, which align with the broader transport objectives used. Such broader objectives, and a wider source of influencing documents (such as LTCCP, regional and district plans), would allow transport to deliver outcomes beyond a narrow economic imperative.

An integrated planning approach to transport was much more evident in the NZTA, regional and local transport planning documents, as seen in the transport objectives and aims, and the framing of cycling and wider narrative within the documents. An integrated approach allows increased opportunities to encourage utility cycling and is most likely to succeed (Pucher & Buehler, 2007). In addition, the need to deliver integrated transport policy addressing priorities such as environmental sustainability and health, and the benefits of doing so, is well supported in the literature (Dolan & Geelan, 2010; Harker et al., 2012; Milne, 2012; Oja et al., 2011).

Challenging government direction is visible to some degree in strategic documents but struggles to find purchase in action plans and projects undertaken, a situation which WRC attributes to funding constraints created at central government and the limited ability to generate

⁶² A green prescription (GRx) is a health professional's written advice to a patient to be physically active, as part of the patient's health management – see www.health.govt.nz.

alternative funds at local level. In spite of this, there are a number of organisations which challenge the status quo of utility cycling in NZ, and frequently do so in partnership with NZTA, regional and local government.

7. Conclusions and Recommendations

The *GPA 2015 (Draft)* sets land transport investment for 2015/16 at \$3.4 billion, a significant investment, from which the government (and the NZ public) would like ‘value for money’ (Ministry of Transport, 2014a). Utility cycling is well placed to deliver value for money by offering numerous benefits for an integrated approach to land transport. Its ability to fulfil its promise is dependent on how it is positioned in policy. This study used a discourse analytical approach to reveal the marginalisation of utility cycling in contemporary NZ transport policy, which has significant implications for an effective transport system and for the longer term prospects for sustainable development in NZ.

The marginalisation of utility cycling is within contemporary transport policy discourse was revealed by examining what discourses were evident in reference to utility cycling and sustainable transport, and how the ideology underpinning the discourses privileged the motor vehicle. The analysis demonstrated how the dominant discourse of neoliberal economic growth impedes the implementation of sustainable transport policies that can support utility cycling.

Analysis of the central government transport policy documents revealed a discourse that favours vehicular transportation through a roading network. This discourse aligns with the currently expressed and enacted public preference for cars as the mode of transport (Ministry of Transport, 2013c), an alignment that is powerful and transformative (Schmidt, 2001). Transport is promoted almost exclusively as an activity to facilitate economic growth, despite its potential (and actual) impact on health and well-being, social justice, and environmental sustainability, all of which are essentially ignored in central government policy documents.

The findings demonstrate how the discursive practices of the government privilege private motor vehicle use, and how they help both to legitimate and maintain that privilege, while positioning utility cycling as a marginalised mode of transport in contemporary NZ transport policy. This is evidenced by the following strategies:

- The government strategy *Getting There* produced in 2005, has not been reviewed or revisited since, and is not included as a key strategy or plan of the Ministry of Transport.
 - Cycling is increasingly marginalised by the narrowing of central government objectives for transport. These move away from outcomes that cycling supports, such as, environmental sustainability, access and mobility, public health and well-being.
 - Cycling is largely excluded as a solution for reducing greenhouse emissions. Instead technological solutions are privileged through the *NZEECS 2011* and elsewhere.
 - Cycling is not supported through funding. It receives less than 1% of the transport budget, and is restricted through work category definitions which promote infrastructure over promotional and educational activities.
 - Regional and local government discourse indicates some priority for cycling, but faces constraint through a lack of available funding from the NLTP, without which alternative sources are required.
- Providing an argument to fund transport activities outside of the NLTP is challenging, particularly when those same dollars can potentially provide greater value as a part contribution to NLTP funded projects.

Transport policy discourse is contested and shaped by regional and local government, through the use of broad transport aims, integrated planning, and through direct challenge of the government (as explored in Chapter 6). WRC and HCC transport policy documents currently present a broader more holistic vision and aim for transport, in spite of the narrowing vision from central government. Whether the visions presented by regional and local government are retained in the future remains to be seen, particularly in light of the LTMA amendments made since the documents analysed in this study were written. Further, with the change in transport planning requirements (where the NLTS and RLTSs have been repealed), the means for consultative long-term planning and strategy have been reduced.

The government is thus failing to deliver integrated transport policy, minimising its broader responsibilities through inadequate efforts to address the environmental burden of the transport sector, and is not exploiting the significant health and social benefits offered by increased active transport mode share. Furthermore, the discursive strategies employed by the government push much of this responsibility onto regional and local government, while at the same time impeding their efforts through funding constraints and the removal of strategic and legislative impetus.

Stimulating change

“To recognise a constraint, to be sure, is not necessarily to accept it” (Wildavsky, 1987, p. 398).

Invoking discourse analysis is a call for change, but Bacchi criticised a tendency for a lack of attention being given to “theorizing the ‘space for challenge’” (2000, p. 55). In undertaking this research to discover the position of utility cycling in contemporary NZ transport policy, this research attempted to solve a puzzle – namely, given the agreed benefits of cycling, how and why does it not have greater mode share in our transportation system? The ‘space for challenge’ is about identifying a way to change this lack of mode share in order to create impetus for change. Possible approaches to stimulate this change include reflecting on the following.

As the research shows, the approach to funding has a powerful influence on transport outcomes. What then could be achieved with an increased allocation – or a change in how it is allocated? What do stakeholders think could be achieved with the allocation? Participatory Budgeting,⁶³ for example, may be a worthwhile approach at a local or regional level. When considering the use of numbers in a strategic manner, if “counting can be used to stimulate public demands for change...” (Stone, 2012, p. 203), then what numbers will stimulate demand for provision for cycling? Or the numbers cycling for transport?

⁶³ Participatory Budgeting (PB) is a democratic process in which community members directly decide how to spend part of a public budget. See <http://www.participatorybudgeting.org/>.

The influence of social norms is also powerful and “...people are as much or more influenced by social norms and networks as by “hard” factual information” (Stone, 2012, p. 324). Therefore, rather than just stating the facts of what cycling has to offer, efforts could go to promoting cycling as a socially desirable activity. Information currently suggests that cycling is not viewed as a social norm (Muggeridge, 2012; Traffic Design Group TDG, 2014). Therefore, promotional activities may currently have greater impact at increasing the numbers cycling than some infrastructure projects.

Finally, consideration must be given to the perceptions of road users towards utility cycling and those who cycle, and how negative perceptions and behaviours can be changed through education and training.

Considerable impact can be made on cycling from outside of infrastructure (Koorey, 2011). Repeated emphasis and calls for infrastructure for cycling, may in fact be a symptom of the lack of figurative ‘space’ given to cyclists on NZ roads. Do drivers view cyclists as legitimate road users?

There is no lack of example on *how* to effectively increase the numbers of people utility cycling (for international examples see, Pucher & Buehler, 2008; for NZ examples see, Tin Tin, Woodward, Thornley, & Ameratunga, 2009). This study shows instead that there is a lack of *will* to effect change, particularly from central government.

Central Government

A neoliberal policy approach generally assumes that self-regulating markets produce better results than explicit efforts to modify market results. However, a hands-off approach is not viable when there are known ‘market failures’ (Auckland Council et al., 2013, p. 55) where the market doesn’t serve the best interests of the individual or society. An example of this is illustrated by the cost of urban sprawl. A lag exists between the pursuit of land for new housing and city development, and the consequences of disconnected communities, reduced opportunities for active transport, increased air pollution, impeded access and mobility, and so on. Issues such as traffic congestion (accompanied by air pollution) and obesity are increasing, and as “...the products of plenty...” (Ridley,

2010, p. 296), are by-products of the very economic growth and prosperity the government so vigorously seeks through its approach to transport policy.

Cycling (and walking and public transport) must be positioned more strongly through further integration into greater public and political consideration. For example, certain roading and urban design principles create environments which are supportive of cycling, whether they contain specific facilities or not. Other mechanisms contribute to the positioning of cycling, and can be utilised in a positive way such as through the driver licencing process and Road Code to emphasise road sharing and defensive driving techniques.

Regional and Local Government

Funding of some \$80 million dollars towards walking and cycling facilities within other activity classes (New Zealand Transport Agency, 2012b) illustrates the best immediate way forward for supporting cycling for transport. While this figure relates to facilities, the Road Safety Promotion activity class is amenable to education and promotional activities and currently funds Bike Wise⁶⁴, which must be considered an important collaborator for enhancing the social desirability of cycling for transport.

In addition, emphasising how cycling related projects fit with alternative activity classes is essential. For example, the current safety focus has directed projects to look for and emphasise safety objectives/outcomes (which were likely to have existed previously, but would not necessarily have been emphasised under a different category). It is necessary for local and regional government to pursue the funding where it exists, within the *NLTP* framework and elsewhere. Using a multi-pronged approach to increasing utility cycling is critical particularly when it is not currently prioritised through transport. Promoting it to the public health sector is just one option, such as through green prescriptions, Bikes in Schools (partnership between NZTA and Ministry of Health), and bike libraries⁶⁵.

⁶⁴ Bikewise deliver a national programme of activities through regional and local coordinators, promoting cycling as a fun, healthy and safe way to travel.

⁶⁵ See for example, the Dunedin Community Bike Library Project, a joint venture.

Understanding the local situation is an important part of increasing utility cycling. How do we live in Hamilton City? Where do we travel to – how does the climate influence our travel and exercise choices? These are all good questions to answer – because, as the literature shows, people choose to cycle or not for multiple reasons, not necessarily a fixed, unchanging one.

Significance

Utility cycling, sitting as it does at the intersection of heterogeneous policy areas, has currently untapped potential to deliver a number of benefits for NZ, making it a topic worthy of closer examination. This research has contributed to existing scholarship by specifically examining the position of utility cycling in contemporary transport policy in order to increase our understanding of how discourses shape land transport policy, and the implications of such discourses for the development of a long-term sustainable transport system. The findings demonstrate how current policy settings are controlled by central government through discourses which frame transport in neoliberal terms, privileging the motor vehicle while positioning utility cycling as a low priority transport activity. The discourse analytical approach taken in this research provides a way of understanding current policy direction and highlights how efforts to increase support for utility cycling, and sustainable transport objectives in general, can be successful in the future.

Policy Recommendations

There have been efforts to advance utility cycling at all levels of government in NZ, but without a long-term, strategic vision for a genuinely integrated, multi-modal transport system, it is unlikely to occur. The Netherlands, Denmark, and Germany are countries often held up as examples of what can be achieved in gaining cycling mode share. Yet to do so all have had to utilise transport and planning policy to recover and improve levels of cycling, particularly following drops from the 1950s to about the mid-1970s, as car use and ownership boomed there as in many countries, including NZ (Pucher & Buehler, 2008).

To that end, this study provides the basis for the following recommendations in order to shape the strategic direction of land transport in NZ:

- Reinstatement of the requirement for an overarching national strategy to be produced in consultation with stakeholders and the public
- Reinstatement of the requirement for specific strategies for regional land transport, produced through a consultative process
- Amend the LTMA 2003 to reflect broad, integrated objectives for land transport
- Review funding approach so as to allow a broader range of approaches within the qualifying activities accepted in cycling work category (452- cycling facilities)
- Require the GPS, NLTP and any strategies to consider the National Health Strategy (Ministry of Health, 2000) and relevant national environmental strategies or policies

Further research

This thesis initiated a critical study to understand the placement of utility cycling in contemporary NZ transport policy. In doing so, it uncovered a number of issues worthy of further research. For example, the documents analysed do not reveal how viable it is to seek alternative funding for cycling projects, or how easy is it to incorporate cycling into other transport activity classes, such as new roading infrastructure or roading maintenance. This raises questions for further consideration: Does local government pursue cycling projects it needs to fund itself or seek alternative funding for? What impact does infrastructure have on the personal choice to cycle? Does it influence social norms?

In order to further our understanding of the place of utility cycling, additional research would need to analyse the meaning and effect of transport policy on those who are, or are potential, utility cyclists. This requires interview and analysis focussed on the recipients of transport policy in order to understand the embodied nature of utility cycling - an activity supported by transport policy or in spite of transport policy. The focus for such research could include:

- How is cycling for transport viewed by the public, and drivers in particular? Such an exploration has potential to assist in understanding the values contributing to transport decisions and the legitimacy afforded utility cycling.
- Exploration of the motivations of those who cycle for transport in NZ.

Findings would allow for refinement of policy offerings in a way which further maximises value for money and impact for a range of goals including, sustainable transport, safety, public health, and social-justice (such as access).

References

- Alexander, R. J. (2009). *Framing discourse on the environment: A critical discourse approach* (Vol. 1.; 1). New York: Routledge.
- Andersen, L. B., Wedderkopp, N., Kristensen, P., Moller, N. C., Froberg, K., & Cooper, A. R. (2011). Cycling to school and cardiovascular risk factors: A longitudinal study. *Journal of Physical Activity & Health*, 8(8), 1025 - 1033.
- Atkinson, J., Salmond, C., & Crampton, P. (2014). *NZDep2013 Index of Deprivation* Wellington: Department of Public Health, University of Otago. Retrieved from <http://www.otago.ac.nz/>
- Auckland Council, Waikato Regional Council, & Wellington Regional Strategy Committee. (2013). *The costs of physical inactivity: Toward a regional full-cost accounting perspective*. New Zealand. Retrieved from <http://www.waikatoregion.govt.nz/Costs-of-Physical-Inactivity>
- Automobile Association. (2013). Public want brakes put on Hamilton speed limit changes: Scoop Independent News.
- Bacchi, C. (2000). Policy as discourse: What does it mean? Where does it get us? *Discourse: Studies in the Cultural Politics of Education*, 21(1), 45-57. doi:10.1080/01596300050005493
- Baeten, G. (2000). The tragedy of the highway: Empowerment, disempowerment and the politics of sustainability discourses and practices. *European Planning Studies*, 8(1), 69-86. doi:10.1080/096543100110938
- Banister, D., & Berechman, Y. (2001). Transport investment and the promotion of economic growth. *Journal of Transport Geography*, 9(3), 209-218. doi:10.1016/S0966-6923(01)00013-8
- Bertolini, L., le Clercq, F., & Kapoen, L. (2005). Sustainable accessibility: A conceptual framework to integrate transport and land use planning. Two test-applications in the Netherlands and a reflection on the way forward. *Transport Policy*, 12(3), 207-220. doi:10.1016/j.tranpol.2005.01.006
- Bogdanowicz, T. (2004). Cycling and the media. *Intermedia*, 32(3), 21-22.
- Bollard, A., & Pickford, M. (1998). Deregulation and competition policy in the transport sector in New Zealand. *Journal of Transport Economics and Policy*, 32(2), 267-276. doi:10.2307/20053769

- Borissenko, S. (2014). Helmets 'deter' women from cycling. *The Press*. Retrieved from <http://www.stuff.co.nz/the-press>
- Brand, P. (2007). Green subjection: The politics of neoliberal urban environmental management. *International Journal of Urban and Regional Research*, 31(3), 616-632. doi:10.1111/j.1468-2427.2007.00748.x
- Button, K., & Nijkamp, P. (1997). Social change and sustainable transport. *Journal of Transport Geography*, 5(3), 215-218. doi:10.1016/S0966-6923(97)00018-5
- Cameron, D. (2001). *Working with spoken discourse*. London; Thousand Oaks: SAGE.
- Center for Biological Diversity. (2014, March 31). *International climate report: Cutting meat consumption key to reducing emissions*. Retrieved from <http://www.biologicaldiversity.org/>
- Chiang, C., & Prescott, S. (2010, 26 Nov). *The financial crisis in New Zealand: An inconvenient truth*. Paper presented at the Auckland Region Accounting Conference, Manukau Institute of Technology, Auckland. Retrieved from <http://hdl.handle.net/10292/1425>
- Cox, P. (2010). *Moving people: Sustainable transport development*. New York; London: Zed Books.
- Cupples, J., & Ridley, E. (2008). Towards a heterogeneous environmental responsibility: Sustainability and cycling fundamentalism. *Area*, 40(2), 254-264. doi:10.1111/j.1475-4762.2008.00810.x
- Daley, M., & Rissel, C. (2011). Perspectives and images of cycling as a barrier or facilitator of cycling. *Transport Policy*, 18(1), 211-216. doi:10.1016/j.tranpol.2010.08.004
- de Jong, P. (2012). The health impact of mandatory bicycle helmet laws. *Risk Analysis*, 32(5), 782-790. doi:10.1111/j.1539-6924.2011.01785.x
- Department of Internal Affairs. (n.d.). *Setting the scene – the background and context to sustainable urban development in New Zealand*. Retrieved from http://www.dia.govt.nz/diawebsite.nsf/wpg_URL/Resource-material-Sustainable-Urban-Development-Setting-the-Scene?OpenDocument
- Dolan, E., & Geelan, J. (2010, October 11). *Health and transport - two sides of the same coin*. Paper presented at the European Transport Conference 2010, Crowne Plaza Hotel, Glasgow, United Kingdom.

Retrieved from
<http://abstracts.aetransport.org/conference/index/id/16>

- Downs, A. (2003). *Still stuck in traffic : Coping with peak-hour traffic congestion*. Washington, DC, USA: Brookings Institution Press.
- Dryzek, J. S. (2005). *The politics of the earth: Environmental discourses* (2nd ed.). New York: Oxford University Press.
- Dryzek, J. S. (2013). *The politics of the earth: Environmental discourses* (3rd ed.). Oxford: Oxford University Press.
- Duranton, G., & Turner, M. A. (2011). The fundamental law of road congestion: Evidence from US cities. *The American Economic Review*, 101(6), 2616-2652. doi:10.2307/23045653
- Elliott, A., & Urry, J. (2010). *Mobile lives*. London; New York: Routledge.
- Energy Efficiency and Conservation Authority. (2007). *New Zealand energy efficiency and conservation strategy*. Wellington: Author.
- Environment Waikato. (2006). *Regional land transport strategy for the Waikato region 2006-2016*. Hamilton: Environment Waikato Regional Council.
- European Commission. (2008). Road infrastructures - The backbone of transport system. In L. Vita (Ed.), (pp. 40). Luxembourg: Office for Official Publications of the European Communities.
- Fairclough, I., & Fairclough, N. (2012). *Political discourse analysis: A method for advanced students*. Abingdon, OX; New York, NY: Routledge.
- Fairclough, N. (1989). *Language and power*. New York; London: Longman.
- Fairclough, N. (1992a). *Discourse and social change*. Cambridge, England: Polity Press.
- Fairclough, N. (1992b). Intertextuality in critical discourse analysis. *Linguistics and Education*, 4(3-4), 269-293. doi:10.1016/0898-5898(92)90004-G
- Fairclough, N. (2003). *Analysing discourse: Textual analysis for social research*. London: Routledge.
- Fairclough, N. (2005). Neo-liberalism - a discourse-analytical perspective. *Polifonia*, 10(10), 21-52.

- Fairclough, N. (2010). *Critical discourse analysis: The critical study of language* (2nd ed.). Harlow, England; New York: Longman.
- Fairclough, N. (2013). Critical discourse analysis and critical policy studies. *Critical Policy Studies*, 7(2), 177-197.
doi:10.1080/19460171.2013.798239
- Fayyaz, A. (2013, November 12). Al-Suraiseri: Transport is backbone of economy. *Arab News*. Retrieved from <http://www.arabnews.com/>
- Fischer, F. (2003). *Reframing public policy: Discursive politics and deliberative practices*. New York: Oxford University Press.
- Fischer, F., & Gottweis, H. (2013). The argumentative turn in public policy revisited: Twenty years later. *Critical Policy Studies*, 7(4), 425-433.
doi:10.1080/19460171.2013.851164
- Flyvbjerg, B. (1998). *Rationality and power: Democracy in practice*. Chicago: University of Chicago Press.
- Foucault, M. (1972). *The archaeology of knowledge* (A. M. S. Smith, Trans., English ed.). London: Tavistock Publications.
- Fraser, S. D. S., & Lock, K. (2011). Cycling for transport and public health: A systematic review of the effect of the environment on cycling. *The European Journal of Public Health*, 21(6), 738-743.
doi:10.1093/eurpub/ckq145
- Fyhri, A., & Phillips, R. O. (2013). Emotional reactions to cycle helmet use. *Accident Analysis & Prevention*, 50(0), 59-63.
doi:x.doi.org/10.1016/j.aap.2012.03.027
- Galvis, C. L., & Singh, D. Z. (2012). The dialectics of circulation and congestion in history. *The Journal of Transport History*, 33(2), 253-259,275.
- Garrard, J., Rose, G., & Lo, S. K. (2008). Promoting transportation cycling for women: The role of bicycle infrastructure. *Preventive Medicine*, 46(1), 55-59. doi:10.1016/j.ypmed.2007.07.010
- Garrison, W. L., & Ward, J. D. (2000). *Tomorrow's transportation: Changing cities, economies, and lives*. Boston: Artech House.
- Garud, R., Kumaraswamy, A., & Karnøe, P. (2010). Path Dependence or Path Creation? *Journal of Management Studies*, 47(4), 760-774.
doi:10.1111/j.1467-6486.2009.00914.x

- Gee, J. P. (2004). Discourse analysis: What makes it critical? In R. Rogers (Ed.), *An introduction to critical discourse analysis in education* (pp. 19-50). Mahwah, N.J: Lawrence Erlbaum Associates.
- Glynos, J., Howarth, D., Norval, A., & Speed, E. (2009). *Discourse analysis: Varieties and methods* (NCRM/014). London, UK. Retrieved from http://eprints.ncrm.ac.uk/796/1/discourse_analysis_NCRM_014.pdf
- Goulden, M., Ryley, T., & Dingwall, R. (2014). Beyond 'predict and provide': UK transport, the growth paradigm and climate change. *Transport Policy*, 32(0), 139-147. doi:10.1016/j.tranpol.2014.01.006
- Gow, L. (2000). *Curbing the Sprawl: Urban Growth Management in the United States – Lessons for New Zealand*. Wellington: Ministry for the Environment.
- Green, J., Steinbach, R., & Datta, J. (2012). The travelling citizen: Emergent discourses of moral mobility in a study of cycling in London. *Sociology*, 46(2), 272-289. doi:10.1177/0038038511419193
- Gunder, M. (2006). Sustainability: Planning's saving grace or road to perdition? *Journal of Planning Education and Research*, 26(2), 208-221. doi:10.1177/0739456x06289359
- Hajer, M. (1997). *The politics of environmental discourse: Ecological modernization and the policy process*. Oxford: Clarendon Press.
- Hajer, M. (n.d.). FAQ. Retrieved from <http://www.maartenhajer.nl>
- Hajer, M., & Versteeg, W. (2005). A decade of discourse analysis of environmental politics: Achievements, challenges, perspectives. *Journal of Environmental Policy & Planning*, 7(3), 175-184. doi:10.1080/15239080500339646
- Hamilton City Council. (2010a). *Access Hamilton strategy: Transport choices for everyone*. Hamilton: Author Retrieved from <http://www.hamilton.govt.nz/>.
- Hamilton City Council. (2010b). *Active travel action plan*. Hamilton: Author Retrieved from <http://www.hamilton.govt.nz/>.
- Hamilton City Council. (2010c). *Integrated transport plan*. Hamilton: Author Retrieved from <http://www.hamilton.govt.nz/>.
- Hamilton City Council. (2010d). *Travel demand management action plan*. Hamilton: Author Retrieved from <http://www.hamilton.govt.nz/>.

- Hamilton City Council. (2012a). *Proposed district plan*. Hamilton: Author
Retrieved from <http://www.hamilton.govt.nz/>.
- Hamilton City Council. (2012b). *Safer speed areas – urban: Progress and monitoring report*. Hamilton. Retrieved from
<http://www.saferspeedarea.org.nz/>
- Harker, J., Taylor, P., & Knight-Lenihan, S. (2012). The government policy statement on land transport funding and ecological sustainability. *New Zealand Journal of Environmental Law*, 16, 319-351.
- Harris, Z. S. (1952). Discourse analysis. *Language*, 28(1), 1-30.
doi:10.2307/409987
- Harvey, D. (2007). *Brief history of neoliberalism*. Oxford, GBR: Oxford University Press, UK.
- Haughton, G., & McManus, P. (2012). Neoliberal experiments with urban infrastructure: The cross city tunnel, Sydney. *International Journal of Urban and Regional Research*, 36(1), 90-105.
doi:10.1111/j.1468-2427.2011.01019.x
- Heesch, K. C., & Sahlqvist, S. (2013). Key influences on motivations for utility cycling (cycling for transport to and from places). *Health Promotion Journal of Australia*, 24(3), 227-233.
doi:10.1071/HE13062
- Hendriksen, I. J. M., Simons, M., Garre, F. G., & Hildebrandt, V. H. (2010). The association between commuter cycling and sickness absence. *Preventive Medicine*, 51(2), 132-135.
doi:10.1016/j.ypmed.2010.05.007
- Henning, T. F. P., Muruvan, S., Feng, W. A., & Dunn, R. C. (2011). The development of a benchmarking tool for monitoring progress towards sustainable transportation in New Zealand. *Transport Policy*, 18(2), 480-488. doi:10.1016/j.tranpol.2010.10.012
- Herr, S. Z. (2012). *Biopolitics of bike-commuting: Bike lanes, safety, and social justice*. University of Kentucky. Retrieved from
http://uknowledge.uky.edu/geography_etds/2/
- Hewitt, S. (2009). *Discourse analysis and public policy research*. Newcastle University. Retrieved from
<http://www.ncl.ac.uk/cre/publish/discussionpapers/pdfs/dp24Hewitt.pdf>
- Hill, M., & Hupe, P. (2009). *Implementing Public Policy : An Introduction to the Study of Operational Governance* (2nd ed.). Los Angeles ; London: SAGE.

- Hinckson, E. A., Garrett, N., & Duncan, S. (2011). Active commuting to school in New Zealand Children (2004–2008): A quantitative analysis. *Preventive Medicine*, 52(5), 332-336. doi:10.1016/j.ypmed.2011.02.010
- Horton, D. (2006). Environmentalism and the bicycle. *Environmental Politics*, 15(1), 41-58. doi:10.1080/09644010500418712
- Hrelja, R., Isaksson, K., & Richardson, T. (2013). Choosing conflict on the road to sustainable mobility: A risky strategy for breaking path dependency in urban policy making. *Transportation Research Part A: Policy and Practice*, 49(0), 195-205. doi:10.1016/j.tra.2013.01.029
- Import flood set to sink car dealers. (1997, 5 JAN). *Sunday Star Times*, p. 3. Retrieved from http://www.knowledge-basket.co.nz.ezproxy.waikato.ac.nz/search/doc_view.php?d1=ffx95-03/text/1997/01/07/doc00211.html
- Imran, M., & Matthews, L. (2011). Discursive path dependence: Keeping the supremacy of road-based urban transport planning in Auckland. *Road and Transport Research*, 20(1), 41-57.
- International Road Transport Union. (2014). *About road transport*. Retrieved from <http://www.iru.org/>
- International Transport Forum. (2013). Understanding the value of transport infrastructure *Guidelines for macro-level measurement of spending and assets*. Paris: OECD.
- Jay, G. M. M., & Morad, M. (1997). Environmental planning and sustainable transport: Does cycling matter? *Asia Pacific Journal on Environment and Development*, 4(2), 29-37.
- Jeon, C. M., Amekudzi, A. A., & Guensler, R. L. (2013). Sustainability assessment at the transportation planning level: Performance measures and indexes. *Transport Policy*, 25, 10-21. doi:10.1016/j.tranpol.2012.10.004
- Jones, C. H. D., & Ogilvie, D. (2012). Motivations for active commuting: A qualitative investigation of the period of home or work relocation. *International Journal of Behavioral Nutrition and Physical Activity*, 9, 109. doi:10.1186/1479-5868-9-109
- Jones, T., Pooley, C. G., Scheldeman, G., Horton, D., Tight, M., Mullen, C., . . . Whiteing, A. (2012). Moving around the city: discourses on walking and cycling in English urban areas. *Environment and Planning A*, 44(6), 1407-1424. doi:10.1068/a44387

- Koorey, G. (2003, 14-17 September). *Sustainable urban transportation policies - New Zealand and overseas*. Paper presented at the IPENZ Transportation Group Technical Conference, Christchurch. Retrieved from http://ir.canterbury.ac.nz/bitstream/10092/640/1/12591265_GFK-SustTrpt-Policies-Paper-IPENZTG-03.pdf
- Koorey, G. (2004). Every breath you take (effect of pollution on cyclists). *Chainlinks Magazine*, 38-40. Retrieved from <http://can.org.nz/system/files/CL-2004-02-Feb-Mar.pdf>
- Koorey, G. (2011, 18-21 September). *Are you a cyclist or do you cycle? The language of promoting cycling*. Paper presented at the Asia-Pacific Cycling Congress, Brisbane, Australia. Retrieved from <http://hdl.handle.net/10092/6295>
- Koorey, G., Macbeth, A. G., & Wilke, A. (2005, 9 August 2005). *Planning and design for cycling - developing best practice in New Zealand*. Paper presented at the Institution of Transportation Engineers (ITE) Conference, Melbourne. Retrieved from <http://viastrada.co.nz/>
- Kövecses, Z., & Benczes, R. (2010). *Metaphor: A practical introduction* (2nd ed.). Cary, NC, USA: Oxford University Press.
- Kuschel, G., Metcalfe, J., Wilton, E., Guria, J., Hales, S., Rolfe, K., & Woodward, A. (2012). *Updated health and air pollution in New Zealand study: Volume 1: Summary Report* Auckland: Health Research Council of New Zealand. Retrieved from www.hapinz.org.nz
- Lakshmanan, T. R. (2011). The broader economic consequences of transport infrastructure investments. *Journal of Transport Geography*, 19(1), 1-12. doi:10.1016/j.jtrangeo.2010.01.001
- Land Transport Management Act 2003, 2003 S.N.Z. No. 118 (Reprint as at 2008, 1 August).
- Land Transport Management Act 2003, 2003 S.N.Z. No. 118 (Reprint as at 2010, 27 November).
- Land Transport Management Act 2003, 2003 S.N.Z. No. 118 (Reprint as at 2013, 4 October).
- Land Transport Management Amendment Act 2013, 2013 S.N.Z. No. 35
- Land Transport Safety Authority. (2000). *Travel survey report - increasing our understanding of New Zealanders' travel behaviour 1997/1998*. Wellington. Retrieved from

<http://www.transport.govt.nz/research/travelsurvey/1997-98travelsurveyhighlights-contents/>

Land Transport Safety Authority. (2004). Cycle network and route planning guide. New Zealand: Author.

Lawson, A. R., Pakrashi, V., Ghosh, B., & Szeto, W. V. (2013). Perception of safety of cyclists in Dublin City. *Accident Analysis and Prevention*, 50, 499-511. doi:10.1016/j.aap.2012.05.029

Leaman, A. (2014, February 2). Hamilton's 40kmh speed limit zones put on hold. *Waikato Times*. Retrieved from <http://www.stuff.co.nz/waikato-times/>

Lewis, G. (2014, June 4). Playground new battleground for mums. *Waikato Times*. Retrieved from <http://www.stuff.co.nz/waikato-times/news/10115803/Playground-new-battleground-for-mums>

Lindsay, G., Macmillan, A., & Woodward, A. (2011). Moving urban trips from cars to bicycles: impact on health and emissions. *Australian and New Zealand Journal of Public Health*, 35(1), 54-60. doi:10.1111/j.1753-6405.2010.00621.x

Litman, T., & Brenman, M. (2012, 22-26 January). *A new social equity agenda for sustainable transportation*. Paper presented at the Transportation Research Board 91st Annual Meeting Washington DC. Retrieved from <http://www.vtpi.org/equityagenda.pdf>

Low, N., & Astle, R. (2009). Path dependence in urban transport: An institutional analysis of urban passenger transport in Melbourne, Australia, 1956–2006. *Transport Policy*, 16(2), 47-58. doi:10.1016/j.tranpol.2009.02.010

Low, N., & Gleeson, B. (2001). Ecosocialization or countermodernization? Reviewing the shifting 'storylines' of transport planning. *International Journal of Urban and Regional Research*, 25(4), 784-803. doi:10.1111/1468-2427.00344

Low, N., Gleeson, B., & Rush, E. (2003). Making believe: Institutional and discursive barriers to sustainable transport in two Australian cities. *International Planning Studies*, 8(2), 93-114. doi:10.1080/13563470305158

Low, N., Gleeson, B., & Rush, E. (2005). A multivalent conception of path dependence: The case of transport planning in metropolitan Melbourne, Australia. *Environmental Sciences*, 2(4), 391-408. doi:10.1080/15693430500405146

- Macbeth, A. G. (2004). *Sustainable Transportation in New Zealand*. IPENZ Presidential Task Committee. Retrieved from [http://www.ipenz.org.nz/ipenz/forms/pdfs/Sustainable Transportation.pdf](http://www.ipenz.org.nz/ipenz/forms/pdfs/Sustainable_Transportation.pdf)
- Macbeth, A. G., Boulter, R., & Ryan, P. S. (2005). *New Zealand walking and cycling strategies – best practice*. Wellington: Land Transport New Zealand. Retrieved from <http://www.nzta.govt.nz/resources/research/reports/274/docs/274.pdf>
- Matthews, L., & Imran, M. (2010, 2-4 June). *Discursive barriers to sustainable urban transport in Auckland*. Paper presented at the International Conference on Sustainable Transport in the Asia-Indo-Pacific: Varied Contexts - Common Aims, Melbourne, Australia. Retrieved from http://www.planning.org.nz/Folder?Action=View%20File&Folder_id=185&File=Matthews_Imran.pdf
- McCarthy, J., & Prudham, S. (2004). Neoliberal nature and the nature of neoliberalism. *Geoforum*, 35(3), 275-283. doi:10.1016/j.geoforum.2003.07.003
- McLauchlan, G. (2014). *A short history of New Zealand* (New Edition ed.). Auckland: David Bateman Ltd.
- Meehan, W. P., Lee, L. K., Fischer, C. M., & Mannix, R. C. (2013). Bicycle Helmet Laws Are Associated with a Lower Fatality Rate from Bicycle-Motor Vehicle Collisions. *Journal of Pediatrics*, 163(3), 726-729. doi:10.1016/j.jpeds.2013.03.073
- Milne, E. M. G. (2012). A public health perspective on transport policy priorities. *Journal of Transport Geography*, 21(0), 62-69. doi:10.1016/j.jtrangeo.2012.01.013
- Ministry for the Environment. (2009). *Environmental report card: Vehicle kilometres travelled by road*. Wellington: Author.
- Ministry for the Environment. (2013). *Environmental snapshot April 2013*. Wellington: Author.
- Ministry of Economic Development. (2011). *Developing our energy potential: New Zealand energy strategy 2011-2021 and the New Zealand energy efficiency and conservation strategy 2011-2016*. Wellington: Author Retrieved from <http://www.eeca.govt.nz/node/13339>.
- Ministry of Health. (2000). *The New Zealand health strategy*. (3407). Wellington: Author Retrieved from www.health.govt.nz.

- Ministry of Transport. (2005). *Getting there – on foot, by cycle: A strategy to advance walking and cycling in New Zealand transport*. Wellington: Author Retrieved from <http://www.beehive.govt.nz/Documents/Files/Getting%20there.pdf>.
- Ministry of Transport. (2007). *Sustainable transport: Update of the New Zealand Transport Strategy: Discussion paper*. Wellington, New Zealand.
- Ministry of Transport. (2008a). *Government policy statement on land transport funding 2009/10 –2018/19*. Wellington: Author Retrieved from <http://transportblog.co.nz/wp-content/uploads/2011/04/GPSfinal5August2008.pdf>.
- Ministry of Transport. (2008b). *New Zealand transport strategy 2008*. (978-0-478-07230-3). Wellington: Author Retrieved from <http://www.transport.govt.nz/assets/Import/Documents/NZTS2008.pdf>.
- Ministry of Transport. (2008c). *Raising the profile of walking and cycling in New Zealand: A guide for decision makers*. Wellington: Author Retrieved from www.transport.govt.nz.
- Ministry of Transport. (2009a). *Government policy statement on land transport funding 2009/10 –2018/19*. Wellington: Author Retrieved from <http://www.gdc.govt.nz/assets/CommitteeMeetings/Report-11-004-Attachment.pdf>.
- Ministry of Transport. (2009b). *How New Zealanders travel: Trends in New Zealand household travel 1989-2008*. Wellington: Author. Retrieved from <http://www.transport.govt.nz/assets/Import/Documents/How20New20Zealanders20travel20web.pdf>
- Ministry of Transport. (2009c). *Summary of submissions: Safer journeys*. Wellington: Author Retrieved from <http://www.saferjourneys.govt.nz/resources/>.
- Ministry of Transport. (2010). *Safer journeys: New Zealand's road safety strategy 2010-2020*. Wellington: Author Retrieved from <http://www.saferjourneys.govt.nz/resources/#resource-Safer-Journeys-Strategy>.
- Ministry of Transport. (2011a). *Connecting New Zealand: A summary of the government's policy direction for transport*. Retrieved from <http://www.transport.govt.nz/ourwork/KeyStrategiesandPlans/Pages/ConnectingNewZealand.aspx>.

- Ministry of Transport. (2011b). *Government policy statement on land transport funding 2012/13 to 2021/22* Wellington: Author Retrieved from <http://www.transport.govt.nz/ourwork/keystrategiesandplans/gpsonlandtransportfunding/>.
- Ministry of Transport. (2011c). *New Zealand Household Travel Survey 2007-2010: Cycling*. Wellington: Author Retrieved from <http://www.transport.govt.nz/research/LatestResults/>.
- Ministry of Transport. (2013a). *Connecting New Zealand - questions and answers*. Retrieved from <http://www.transport.govt.nz>
- Ministry of Transport. (2013b). *Key strategies and plans*. Retrieved from <http://www.transport.govt.nz/ourwork/keystrategiesandplans/>
- Ministry of Transport. (2013c). *New Zealand Household Travel Survey 2009-2012: Comparing travel modes*. Wellington: Author Retrieved from <http://www.transport.govt.nz/research/travelsurvey/latestresults/>.
- Ministry of Transport. (2013d). *New Zealand Household Travel Survey 2009-2013: Cycling*. Wellington: Author Retrieved from <http://www.transport.govt.nz/research/travelsurvey/latestresults/>.
- Ministry of Transport. (2014a). *Government policy statement on land transport 2015/16-2024/25: Engagement draft*. Wellington: Author Retrieved from <http://www.transport.govt.nz/ourwork/keystrategiesandplans/gpsonlandtransportfunding/gps2015/>.
- Ministry of Transport. (2014b). *The New Zealand vehicle fleet: Annual fleet statistics 2013*. Wellington: Author. Retrieved from <http://www.transport.govt.nz/assets/Uploads/Research/Documents/2013-Fleet-report-final.pdf>
- Moon, P. (2013). *Turning points: Events that changed the course of New Zealand history*. Auckland: New Holland.
- Muggeridge, D. (2012). *Is walking and cycling irresistible? Community perceptions and awareness of active travel in Hastings, New Zealand* Victoria University of Wellington, Wellington. Retrieved from <http://hdl.handle.net/10063/2554>
- National Infrastructure Unit. (2011). *National Infrastructure Plan 2011*. Wellington: New Zealand Government Retrieved from <http://www.infrastructure.govt.nz/plan/2011>.

- New Zealand National Party. (2011). *Economic development: Building a stronger economy*. Wellington: Author.
- New Zealand Office of the Minister of Transport. (2002). *New Zealand transport strategy*. Wellington: Author.
- New Zealand Office of the Prime Minister's Science Advisory Committee. (2013). *New Zealand's changing climate and oceans: The impact of human activity and implications for the future: An assessment of the current state of scientific knowledge*. Auckland, New Zealand: Author.
- New Zealand Transport Agency. (2012a). *At a glance: National land transport programme 2012-15* Retrieved from <http://nzta.govt.nz/resources/national-land-transport-programme/2012-2015/at-a-glance.html>.
- New Zealand Transport Agency. (2012b). *National land transport programme 2012-15 [PDF]*. Retrieved from <http://www.nzta.govt.nz/planning/nltp-2012-2015/index.html>.
- New Zealand Transport Agency. (2012c). *New and improved road, walking and cycling infrastructure*. Retrieved from <http://www.nzta.govt.nz/planning/nltp-2012-2015/improved.html>
- New Zealand Transport Agency. (2013a). Funding assistance rates review: Provisional framework *At a glance August 2013*. Wellington: Author.
- New Zealand Transport Agency. (2013b). *Walking and cycling activity class – overview*. Retrieved from <http://www.pikb.co.nz/>
- New Zealand Transport Agency. (2013c). *Work category 452: Cycling facilities*. Retrieved from <http://www.pikb.co.nz/>
- New Zealand Transport Agency. (2014). *Share the road*. Retrieved from <http://www.nzta.govt.nz/about/advertising/other-advertising/share-the-road.html>
- New Zealand Transport Agency, & ViaStrada Ltd. (2008). *New Zealand walking and cycling strategy stocktake*. Retrieved from <http://www.nzta.govt.nz/resources/nz-walking-cycling-strategy-stocktake/index.html>
- OECD. (2002a). *OECD guidelines towards environmentally sustainable transport*. Paris: OECD Publishing.
- OECD. (2002b). *Policy instruments for achieving environmentally sustainable transport*. Paris: OECD Publishing.

- OECD. (2007). *OECD environmental performance reviews: New Zealand 2007*. Paris: OECD Publishing.
- Oja, P., Titze, S., Bauman, A., de Geus, B., Krenn, P., Reger-Nash, B., & Kohlberger, T. (2011). Health benefits of cycling: A systematic review. *Scandinavian Journal of Medicine & Science in Sports*, 21(4), 496-509. doi:10.1111/j.1600-0838.2011.01299.x
- Oxford Dictionaries. (2014). *Sustainable*. Retrieved from <http://www.oxforddictionaries.com/definition/english/sustainable>
- Paget-Seekins, L. (2013). Competing mobility needs: The users, actors, and discourses in Atlanta, Georgia. *Transport Policy*, 27(0), 142-149. doi:10.1016/j.tranpol.2013.01.001
- Paltridge, B. (2006). *Discourse analysis: An introduction*. London; New York: Continuum.
- Parkin, J. (2012). Chapter 1 Introduction. In J. Parkin (Ed.), *Cycling and Sustainability (Transport and Sustainability, Volume 1)* (pp. 1-20): Emerald Group Publishing Limited.
- Peck, J. (2004). Geography and public policy: Constructions of neoliberalism. *Progress in Human Geography*, 28(3), 392-405. doi:10.1191/0309132504ph492pr
- Peck, J., Theodore, N., & Brenner, N. (2009). Neoliberal urbanism: Models, moments, mutations. *The SAIS Review of International Affairs*, 29(1), 49-66.
- Phillips, N., & Hardy, C. (2002). *Discourse analysis: Investigating processes of social construction* (Vol. 50). Thousand Oaks, CA: SAGE Publications, Inc.
- Povey, L. J., Frith, W. J., & Graham, P. G. (1999). Cycle helmet effectiveness in New Zealand. *Accident Analysis & Prevention*, 31(6), 763-770. doi:10.1016/S0001-4575(99)00033-0
- Power, A. (2012). Social inequality, disadvantaged neighbourhoods and transport deprivation: An assessment of the historical influence of housing policies. *Journal of Transport Geography*, 21(0), 39-48. doi:10.1016/j.jtrangeo.2012.01.016
- Princen, T. (2010). Speaking of sustainability: The potential of metaphor. *Sustainability : Science, Practice, & Policy*, 6(2), 60-65.
- Pucher, J., & Buehler, R. (2007). At the frontiers of cycling: Policy innovations in the Netherlands, Denmark, and Germany. Retrieved from <http://policy.rutgers.edu/faculty/pucher/Frontiers.pdf>

- Pucher, J., & Buehler, R. (2008). Making cycling irresistible: Lessons from The Netherlands, Denmark and Germany. *Transport Reviews*, 28(4), 495-528. doi:10.1080/01441640701806612
- Pucher, J., & Buehler, R. (2012a). *City cycling*. Cambridge, Massachusetts; London, England: The MIT Press.
- Pucher, J., & Buehler, R. (2012b). Introduction: Cycling for sustainable transportation. In J. Pucher & R. Buehler (Eds.), *City Cycling* (pp. 1-7). Cambridge, Massachusetts; London, England: The MIT Press.
- Pucher, J., & Buehler, R. (2012c). Promoting cycling for daily travel: Conclusions and lessons from across the globe. In J. Pucher & R. Buehler (Eds.), *City Cycling* (pp. 347-363). Cambridge, Massachusetts; London, England: The MIT Press.
- Pucher, J., Dill, J., & Handy, S. (2010). Infrastructure, programs, and policies to increase bicycling: An international review. *Preventive Medicine*, 50, Supplement(0), S106-S125. doi:10.1016/j.ypmed.2009.07.028
- Reynolds, C. C. O., Harris, M. A., Teschke, K., Crompton, P. A., & Winters, M. (2009). The impact of transportation infrastructure on bicycling injuries and crashes: A review of the literature. *Environmental Health*, 8, 19. doi:10.1186/1476-069x-8-47
- Richards, R., Murdoch, L., Reeder, A., & Rosenby, M. (2010). Advocacy for active transport: Advocate and city council perspectives. *International Journal of Behavioral Nutrition and Physical Activity*, 7(1), 5. doi:10.1186/1479-5868-7-5
- Ridley, M. (2010). *The rational optimist: How prosperity evolves*. London: Fourth Estate.
- Rissel, C. (2012). The impact of compulsory cycle helmet legislation on cyclist head injuries in New South Wales, Australia: A rejoinder. *Accident Analysis & Prevention*, 45(0), 107-109. doi:10.1016/j.aap.2011.11.017
- Rissel, C., Bonfiglioli, C., Emilsen, A., & Smith, B. J. (2010). Representations of cycling in metropolitan newspapers - changes over time and differences between Sydney and Melbourne, Australia. *BMC Public Health*, 10(1) doi:10.1186/1471-2458-10-371
- Rissel, C., & Wen, L. M. (2011). The possible effect on frequency of cycling if mandatory bicycle helmet legislation was repealed in Sydney, Australia: a cross sectional survey. *Health Promotion Journal of Australia*, 22(3), 178-183.

- Robinson, D. L. (2006). Do enforced bicycle helmet laws improve public health? No clear evidence from countries that have enforced the wearing of helmets. *British Medical Journal*, 332(7543), 722-725. doi:10.1136/bmj.332.7543.722-a
- Schiller, P. L., Bruun, E. C., & Kenworthy, J. R. (2010). *An introduction to sustainable transportation: Policy, planning and implementation*. London; Washington: Earthscan.
- Schmidt, V. A. (2001). The politics of economic adjustment in France and Britain: When does discourse matter? *Journal of European Public Policy*, 8(2), 247-264. doi:10.1080/13501760110041578
- Schneider, A. L., & Ingram, H. M. (1997). *Policy design for democracy*. Lawrence: University Press of Kansas.
- Schwedes, O. (2011). The field of transport policy: An initial approach. *German Policy Studies*, 7(2), 7-41,141.
- Skinner, D., & Rosen, P. (2007). Hell is other cyclists: Rethinking transport and identity. In P. Rosen, P. Cox & D. Horton (Eds.), *Cycling and Society* (pp. 83-96). Aldershot, England; Burlington, VT: Ashgate Publishing Group.
- Statistics New Zealand. (2009). *Car, bus, bike or train: What were the main means of travel to work?* Wellington: Author Retrieved from http://www.stats.govt.nz/browse_for_stats/people_and_communities/Geographic-areas/commuting-patterns-in-nz-1996-2006.aspx.
- Statistics New Zealand. (2014). *2013 Census tables about a place: New Zealand*. Retrieved from <http://www.stats.govt.nz/Census/2013-census/data-tables/tables-about-a-place.aspx>
- Stone, D. (2012). *Policy paradox: The art of political decision making* (3rd ed.). New York: W.W. Norton & Co.
- Stopher, P. R. (2004). Reducing road congestion: A reality check. *Transport Policy*, 11(2), 117-131. doi:10.1016/j.tranpol.2003.09.002
- Sweet, M. (2011). Does traffic congestion slow the economy? *Journal of Planning Literature*, 26(4), 391-404. doi:10.1177/0885412211409754
- Talley, W. (1996). Linkages between transportation infrastructure investment and economic production. *Logistics and Transportation Review*, 32(1), 145-154.
- The Kennett Brothers. (2004). *Ride: The story of cycling in New Zealand*. Wellington: Author.

- Tin Tin, S., Woodward, A., Thornley, S., & Ameratunga, S. (2009). Cycling and walking to work in New Zealand, 1991-2006: Regional and individual differences, and pointers to effective interventions. *International Journal of Behavioral Nutrition and Physical Activity*, 6(1), 64. doi:10.1186/1479-5868-6-64
- Tin Tin, S., Woodward, A., Thornley, S., & Ameratunga, S. (2011). Regional variations in pedal cyclist injuries in New Zealand: safety in numbers or risk in scarcity? *Australian and New Zealand Journal of Public Health*, 35(4), 357-363. doi:10.1111/j.1753-6405.2011.00731.x
- Traffic Design Group TDG. (2014). *Rural cycling survey: Summary report* (12545). Hamilton: Waikato Regional Council. Retrieved from <http://www.waikatoregion.govt.nz/>
- Transit New Zealand. (2008). *New Zealand supplement to Austroads Guide to Traffic Engineering Practice: Part 14: Bicycles*. (SP/M/025). Wellington, New Zealand: Author Retrieved from <http://www.nzta.govt.nz/resources/nz-supplement-austroads-gtep-part-14-bicycles/>.
- Transportation Sustainability Research Center. (n.d.). *About TSRC*. Retrieved from <http://tsrc.berkeley.edu>
- van Dijk, T. A. (1997). What is political discourse analysis? *Belgian Journal of Linguistics*, 11(1), 11-52.
- van Dijk, T. A. (1998). *Ideology: A multidisciplinary approach*. Thousand Oaks, CA; London: Sage Publications.
- van Dijk, T. A. (2000). *Ideology and discourse: A multidisciplinary introduction*. Retrieved from <http://www.discourses.org/download/books/>
- van Dijk, T. A. (2008). *Discourse and power*. Basingstoke [England] ; New York: Palgrave Macmillan.
- van Dijk, T. A. (2011). *Discourse studies: A multidisciplinary introduction*. London: Sage Publications.
- van Eemeren, F. H., Jackson, S., & Jacobs, S. (2011). Argumentation. In T. A. Van Dijk (Ed.), *Discourse studies: A multidisciplinary approach* (2nd ed., pp. 85-106). London: Sage Publications.
- Vigar, G. (2000). Local 'barriers' to environmentally sustainable transport planning. *Local Environment*, 5(1), 19-32. doi:10.1080/135498300113246

- Wagenaar, H. (2011). *Meaning in action : Interpretation and dialogue in policy analysis*. Armonk, N.Y.: M.E. Sharpe.
- Waikato Regional Council. (2009). *Regional walking and cycling strategy for the Waikato region*. (S2023-0310). Hamilton: Author.
- Waikato Regional Council. (2011). *Waikato regional land transport strategy 2011-2041*. (2011/06). Hamilton: Author Retrieved from <http://www.waikatoregion.govt.nz/Council/Policy-and-plans/Transport-policy/Regional-Land-Transport-Strategy/>.
- Waikato Regional Council. (2012). *Waikato regional land transport programme 2012/13-2014/15*. (2012/08). Hamilton: Author Retrieved from <http://www.waikatoregion.govt.nz/Council/Policy-and-plans/Transport-policy/RLTP/>.
- Watson, J. (1996). *Links: A history of transport and New Zealand society*. Wellington: GP Publications; Ministry of Transport.
- Widdowson, H. G. (1995). Discourse analysis: A critical view. *Language and Literature*, 4(3), 157-172. doi:10.1177/096394709500400301
- Wildavsky, A. B. (1987). *Speaking truth to power: The art and craft of policy analysis*. New Brunswick, USA: Transaction Books.
- Wilke, A., Lieswyn, J., & Taylor, S. (2012, February 23). *Automatic cycle counting programme development in Hamilton*. Paper presented at the 2 Walk and Cycle Conference, Hastings. Retrieved from <http://viastrada.co.nz/>
- Wodak, R. (2001). What CDA is about - a summary of its history, important concepts and its developments. In R. Wodak & M. Meyer (Eds.), *Methods of critical discourse analysis* (pp. 1-13). London: SAGE.
- Wojtarowicz, N. (2013). *Measuring city competitiveness: Emerging trends and metrics*. The Future Cities Institute. Retrieved from <http://www.futurecitiesinstitute.org/measuring-city-competitiveness-emerging-trends-and-metrics/>
- Wolff, J., & Haubrich, D. (2006). Economism and its limits. In M. Moran, M. Rein & R. E. Goodin (Eds.), *The Oxford Handbook of Public Policy* (pp. 746-770). New York: Oxford University Press.
- World Commission on Environment and Development. (1987). *Our Common Future*. Oxford; New York: Oxford University Press.
- Yanow, D. (2000). *Conducting interpretive policy analysis*. Thousand Oaks, CA: Sage Publications.

Zuurbier, M., Hoek, G., Oldenwening, M., Lenters, V., Meliefste, K., van den Hazel, P., & Brunekreef, B. (2010). Commuters' exposure to particulate matter air pollution is affected by mode of transport, fuel type, and route. *Environmental Health Perspectives*, 118(6), 783-789. doi:10.1289/ehp.0901622

Appendices

Appendix A: Documents

All documents PDF format unless noted. Legislation and statutory documents noted in **bold**.

* only available online or in a PDF of screen shots

Source	Document	Date
Central Government		
<i>Key strategies and plans identified by the Ministry of Transport⁶⁶</i>		
MOT	Safer Journeys: New Zealand's Road Safety Strategy 2010-2020	2010
The <i>Safer Journeys</i> strategy is developed by the National Road Safety Committee (NRSC), whose core members are from the following government agencies: MOT, NZTA, New Zealand Police, Accident Compensation Corporation (ACC). The NRSC works with a range of other government agencies and works with a wide range of organisations (including public consultation) to develop and implement the Strategy. <i>Safer Journeys</i> was developed to replace the 2003 <i>Road Safety to 2010</i> strategy and drew significant public interest in the submission process (Ministry of Transport, 2010). It is being implemented through a series of three action plans⁶⁷.		
NIU	National Infrastructure Plan 2011 (version 2)	2011
Operating under Treasury and the Minister for Finance, the National Infrastructure Unit (NIU) produces the NIP. The first NIP was released in 2010, the second, and current in 2011, with the next planned for release in 2015. The aim of the NIP is to provide a strategic, nationwide vision for infrastructure development spanning 20 years – this is intended to reduce uncertainty for business and the sectors concerned, (transport is one of five key sectors), by providing a common understanding of government expectations and relevant policy settings. The NIP contributes to the context under which the GPS on transport is created. The creation of the current NIP included regional infrastructure workshops and a submission process.		

⁶⁶ Documents identified as at 17.04.14 <http://www.transport.govt.nz/>.

⁶⁷ The first, *Safer Journeys Action Plan 2011-2012*, and the second, *Safer Journeys Action Plan 2013-2015*, have been published thus far.

MOT	Government Policy Statement on Land Transport Funding 2012-13 to 2021-22	2011
A statutory document, the GPS is legislated under the LTMA since 2008, and is issued every three financial years. In preparation of the GPS, further relevant policy documents are identified and must be taken into account • Any national energy efficiency and conservation strategy • Any relevant national policy statement that is in force under the <i>Resource Management Act 1991</i>⁶⁸ (Active at time of current GPS publication, Land Transport Management Act 2003, Reprint as at 2010, 27 November, s.87. See s.67, in latest reprint.) The GPS sets out the spending priorities for six years, with an overview of indicative figures to the ten year mark. The NZTA is required under the Act to give effect to the GPS ('Land Transport Management Act 2003', Reprint as at 2013, 4 October, s.70). This is a critical transport policy document as it sets the direction for the NLTP, and significantly, sets the outlines the expected expenditure levels for the defined transport activities (of which, cycling and walking is one).		
MOT	Connecting New Zealand: A Summary of the Government's Policy Direction for Transport	2011
This document presents an overview of the government's transport objectives, drawing on the key transport policy documents: • <i>National Infrastructure Plan 2011</i> • <i>Government Policy Statement on Land Transport Funding 2012/13-2021/22</i> • <i>Safer Journeys: New Zealand's Road Safety Strategy 2010-2020</i> It is presented in a readily accessible form suitable for the public. <i>Other core documents</i>		
MED	Developing our Energy Potential: New Zealand Energy Strategy 2011-2021 and the New Zealand Energy Efficiency and Conservation Strategy 2011-2016	2011
Referenced in the LTMA, the EECS are produced five yearly under the <i>Energy Efficiency and Conservation Act 2000</i>. The Ministry of Economic Development and the Energy Efficiency and Conservation Authority (EECA), issued the		

⁶⁸ There are currently no national policy statements (NPS) directly relevant to transport, however, some work has been undertaken to scope an NPS on urban design, which may be relevant for future GPS, see: www.mfe.govt.nz.

current <i>NZEECS 2011</i> and it outlines the government's policies, objectives, targets, and the means by which they will be achieved. Sections 15 and 16 of the <i>Energy Efficiency and Conservation Act 2000</i> require public submissions to be sought in the production of the EECS. As noted above, <i>NZEECS 2011</i> must be taken into account in the preparation of the GPS (Land Transport Management Act 2003, Reprint as at 2013, 4 October, s.67).		
NZTA	National Land Transport Programme 2012-2015*	2012
The NLTP is a statutory requirement which gives effect to the GPS – it is produced by the NZTA every three years listing the transport activities expected to be considered for funding for the next three years. The <i>NLTP 2012</i> has an extended outlook of ten years. In addition to receiving parameters from above via the GPS, the NLTP receives input from below through the RLTPs – which are also guided by the GPS. Analysis of the <i>NLTP 2012</i> is made extremely difficult as it is only available in online format – or an unindexed PDF of website screenshots.		
NZG	Land Transport Management Act 2003 (as at 4 October 2013)	2013
The principal Act, the LTMA, has been revised principally through three amendment Acts which were enacted in 2004, 2008, and 2013. The Land Transport Management Amendment Acts of 2008 and 2013 have resulted in 14 versions of the Act from 2008⁶⁹. The Act forms the legislative basis to transport in New Zealand, and sets out requirements for certain policy mechanisms: • Government Policy Statement (GPS), created by the Land Transport Management Amendment Act 2008 • National Land Transport Programme (NLTP) • National Land Transport Strategy (NLTS), repealed by the Land Transport Management Amendment Act 2013 • Regional Land Transport Programmes (RLTPs) The Act also mandates the work of government agencies, such as: • New Zealand Transport Agency (NZTA), created by the Land Transport Management Amendment Act 2008 • Land Transport New Zealand (LTNZ), repealed by the Land Transport Management Amendment Act 2008 • Transit, repealed by the Land Transport Management Amendment Act 2008		

⁶⁹ All versions are available at www.legislation.govt.nz.

<i>Other documents</i>		
MOT	Getting There – on Foot, by Cycle: A Strategy to Advance Walking and Cycling in New Zealand Transport	2005
This document was included as the last government strategy relating directly to cycling, it is referenced by other policy documents in the study. This strategy was created to advance the aims of the <i>New Zealand Transport Strategy 2002</i> (New Zealand Office of the Minister of Transport, 2002) – it is no longer available nor referenced on the Ministry of Transport website, however it still informs some policy at regional and local government level.		
NZTA	At a Glance: National Land Transport Programme 2012-15	2012
This overview document accompanies the detailed <i>National Land Transport Programme 2012-2015</i>. It provides a highlight of the land transport activities that the NZTA anticipates funding over the next three years.		
MOT	New Zealand Transport Strategy 2008	2008
This non-statutory document has been ‘largely’ superseded and the Ministry refers stakeholders to <i>Connecting New Zealand</i> (Ministry of Transport, 2013a); the LTMA amendments in 2013 have removed the requirements for a national land transport strategy entirely (Land Transport Management Amendment Act 2013, s.55(1)). It informs the current <i>Waikato Regional Land Transport Strategy 2011-2041</i>.		
MOT	Government Policy Statement on Land Transport Funding 2009/10–2018/19	2008
This is the first version of the GPS produced under the LTMA, it was amended in 2009 following the election of the National-led government.		
Regional Government		
WRC	Regional Walking and Cycling Strategy for the Waikato Region 2009-15	2009
This is the first such strategy produced for the Waikato region, and was established as a Public Health action under the <i>Regional Land Transport Strategy for the Waikato Region 2006-2016</i> (Environment Waikato, 2006, p. 66). The subsequent <i>RLTS 2011</i> (Waikato Regional Council, 2011) retains the strategy and sets a review cycle of three yearly from 2010 within the Access, Mobility and Public Health actions (p. 72). The <i>Regional Walking and Cycling Strategy</i> was developed by a steering group of stakeholder representatives and relevant territorial authorities, including the Hamilton City Council (HCC).		

WRC	Waikato Regional Land Transport Strategy 2011-2041	2011
The RLTS is prepared under the LTMA, and is informed by the <i>GPS 2008</i> (Ministry of Transport, 2008a), <i>NZTS 2008</i> (Ministry of Transport, 2008b), <i>NZEECS 2007</i> (Energy Efficiency and Conservation Authority, 2007), and a range of other documents, including <i>Safer Journeys</i> (Ministry of Transport, 2010) and <i>Getting There – on Foot, by Cycle</i> (Ministry of Transport, 2005). The strategy sets the strategic direction for transport in the Waikato region for thirty years and must be reviewed at least every six years. Detailed interim progress reports are produced every three years following adoption of the RLTS. The main purpose of the RLTS is to set out land transport activity priorities for submission via the RLTP to the NZTA for funding (Waikato Regional Council, 2011, p. 16). The requirement to produce a RLTS has been repealed by the Land Transport Management Amendment Act 2013.		
WRC	Waikato Regional Land Transport Programme 2012/13-2014/15	2012
This statutory programme is informed by the GPS and implements the RLTS, in turn (along with all other RLTPs), it forms input in the development of the NLTP. Currently covering a three year period and created by the Regional Transport Committee, the programme prioritises land transport activities for submission to the NZTA for inclusion in the NLTP and subsequent funding from the NLTF. The RLTP balances projects which have importance (and attract funding) at central government level, with those of regional importance and local funding (through rating and other sources). The Regional Transport Committee are supported in their work by the Waikato Regional Advisory Group – this group is formed by technical staff from the range of approved organisations within the region that comprise of the territorial authorities (including HCC) and the local office of the NZTA.		
Local Government		
HCC	Access Hamilton Strategy: Transport Choices for Everyone	2010
The <i>Access Hamilton Strategy</i> is the principal transport strategy for HCC, it outlines the overall aspiration and key principles for transport in Hamilton. The strategy is developed in a collaborative way with key transport partners (such as WRC, NZTA) using integrated transport planning principles. It references a range of strategies and legislation from regional and central government and interacts with the other key strategies at the local level.		

HCC	Integrated Transport Plan	2010
This plan supports the <i>Access Hamilton Strategy</i> (Hamilton City Council, 2010a), setting out a framework to identify, prioritise, and integrate, the land transport activities through which the Strategy can be implemented.		
HCC	Active Travel Action Plan	2010
Created in parallel with the <i>Integrated Transport Plan</i> , the Plan is based on a 30 year vision with general plans for 10 year implementation programme. The Action Plan is one of seven such plans which identify activities and projects through which to implement the <i>Access Hamilton Strategy</i> , it is guided by the objectives and priorities of the <i>Integrated Transport Plan</i> . <i>Active Travel Action Plan</i> addresses both recreational and commuter travel for cycling, walking, and the mobility impaired.		

Appendix B: Results of Keyword Search & Context Hierarchy: Cycling

Document:	Count / total word count ⁷⁰ : >cycl< >bik<	Frequency %	Context ⁷⁰ : Multi-modal Transport Choice	Sustainable Transport	Active Transport	Recreation Activity	Safe System	Congestion Solution	Access / Mobility	Utility Cycling	Transport Activity	Heading / Titles
Central Government												
LTMA (as at Oct 2013)	0 ⁷¹ / 50620	0										
GPS (2008)	39 / 14716	0.27	44%	10%	10%		13%	8%	5%		38%	10%
GPS (2011)	12 / 10666	0.11		8%		17%	17%	8%			33%	17%
Connecting NZ (2011)	15 / 15663	0.10	20%	7%			13%	7%	7%	13%	47%	7%
NIP (2011)	2 / 22021	0.01	50%								100%	
Safer Journeys (2010)	70 / 28197	0.25	4%	1%			89%	3%	1%	1%	6%	1%
NZEECS (2011)	1 / 5647	0.04	100%	100%				100%			100%	
NLTP (2012)	341 / 155676	0.22	16%	2%	2%	3%	8%	4%	1%		63%	23%

⁷⁰ Illustrations are not counted. The context indicates what percentage of the cycling presence is framed in that way – they may not equal 100% as the presence of cycling can be linked to multiple contexts.

⁷¹ The presence of cycling in the LTMA was limited to one mention of cycling as an activity class to be funded in the Bay of Plenty region – therefore it was not counted, as the analysis in this instance is of the Central Government legislation that informs all regions.

Document:	Count / total word count: >cycl< >bik<	Frequency %	Context: Multi-modal Transport Choice	Sustainable Transport	Active Transport	Recreation Activity	Safe System	Congestion Solution	Access / Mobility	Utility Cycling	Transport Activity	Heading / Titles
At a Glance (2012)	7 / 4758	0.15	29%				14%	14%	14%		57%	14%
NZTS (2008)	76 / 35070	0.22	49%	14%	32%		11%	5%	5%	7%	28%	5%
Getting There – on foot, by cycle (2005)	631 / 17725	3.56	26%	2%	2%	4%	20%	1%	5%	9%	39%	16%
Regional Government												
Walking and Cycling Strategy (2009)	569 / 20183	2.82	23%	4%	6%	19%	10%	1%	3%	9%	41%	15%
RLTS (2011)	144 / 61972	0.23	35%	2%	12%	15%	9%	2%	3%	13%	31%	10%
RLTP (2012)	44 / 26113	0.17	41%	5%	5%	7%	9%	2%	9%	5%	50%	11%
Local Government												
Access Hamilton Strategy (2010)	23 / 5146	0.45	57%		13%		9%	9%		13%	65%	
Integrated Transport Plan (2010)	159 / 35411	0.45	19%		32%	1%	26%	1%		3%	67%	1%
Active Travel Action Plan (2010)	166 / 4886	3.40	18%		32%	1%	16%			3%	64%	6%

Appendix C: New Zealand Transport 'Objectives'

Document	
Terminology	Content
Central Government	
<i>Land Transport Management Act 2003</i> as at 1 August 2008 ("Land Transport Management Act 2003, 2003 S.N.Z. No. 118," Reprint as at 2008, 1 August)	
<i>Purpose</i> (of the Act)	• "...The purpose of this Act is to contribute to the aim of achieving an affordable, integrated, safe, responsive, and sustainable land transport system. • To contribute to that purpose, this Act— (a) provides an integrated approach to land transport funding and management; and (b) improves social and environmental responsibility in land transport funding, planning, and management; and (c) provides the Agency with a broad land transport focus; - and (d) improves long term planning and investment in land transport, including planning and investment in coastal shipping and rail; and (e) ensures that land transport funding is allocated in an efficient and effective manner; and (f) improves the flexibility of land transport funding by providing for alternative funding mechanisms." (s.3)
<i>Preparation of GPS</i>	"(1) The Minister must • (a) be satisfied that the GPS— (i) contributes to the aim of achieving an affordable, integrated, safe, responsive, and sustainable land transport system; and (ii) contributes to each of the following: (A) assisting economic development: (B) assisting safety and personal security: (C) improving access and mobility: (D) protecting and promoting public health: (E) ensuring environmental sustainability; and (iii) is consistent with any— (A) national land transport strategy: (B) national energy efficiency and conservation strategy; and • (b) take into account any relevant national policy statement that is in force under the Resource Management Act 1991; and • (c) have regard to the views of Local Government New Zealand and representative groups of land transport users and providers (including representative groups of coastal shipping users and providers). (2) Before issuing a GPS, the Minister must consult with the Agency about the proposed GPS." (s.87)

<i>Objective</i> (of NZTA)	“...to undertake its functions in a way that contributes to an affordable, integrated, safe, responsive, and sustainable land transport system” (s.94)
Land Transport Management Act 2003 as at 4 October 2013 (“Land Transport Management Act 2003, 2003 S.N.Z. No. 118,” Reprint as at 2013, 4 October)	
<i>Purpose</i> (of the Act)	“...to contribute to an effective, efficient, and safe land transport system in the public interest” (s.3)
<i>Preparation of GPS</i>	“(1) ...The Minister must (a) be satisfied that the GPS on land transport contributes to the purpose of this Act; and (b) take into account— (i) any national energy efficiency and conservation strategy; and (ii) any relevant national policy statement that is in force under the Resource Management Act 1991; and (c) have regard to the views of Local Government New Zealand and representative groups of land transport users and providers... (4) Before issuing a GPS on land transport, the Minister must consult the Agency about the proposed GPS on land transport.” (s.67 (1)(4))
<i>Objective</i> (of NZTA)	“...to undertake its functions in a way that contributes to an effective, efficient, and safe land transport system in the public interest” (s.94)
Government Policy Statement on Land Transport Funding 2009/10 – 2018/19 (Ministry of Transport, 2008a)	
<i>Vision</i> (as per NZTS)	“People and freight in New Zealand have access to an affordable, integrated, safe, responsive and sustainable transport system.” (p. 8)
<i>Objectives</i>	“ensuring environmental sustainability - assisting economic development - assisting safety and personal security - improving access and mobility - protecting and promoting public health” (p. 8)
Government Policy Statement on Land Transport Funding 2009/10 – 2018/19 (Ministry of Transport, 2009a)	
<i>Priority</i>	“...to increase economic productivity and growth in New Zealand” (p. 1)

<i>Impacts</i>	“Impacts that contribute to economic growth and productivity • Improvements in the provision of infrastructure and services that enhance transport efficiency and lower the cost of transportation through: - Improvements in journey time reliability - Easing of severe congestion - More efficient freight supply chains - Better use of existing transport capacity. • Better access to markets, employment and areas that contribute to economic growth. • A secure and resilient transport network. Other impacts • Reductions in deaths and serious injuries as a result of road crashes. • More transport choices, particularly for those with limited access to a car where appropriate. • Reductions in adverse environmental effects from land transport. • Contributions to positive health outcomes.” (p. 11)
Government Policy Statement on Land Transport Funding 2012-13 to 2021-22 (Ministry of Transport, 2011b)	
<i>Goal</i>	• “...an effective, efficient, safe, secure, accessible and resilient transport system that supports the growth of our country’s economy in order to deliver greater prosperity, security and opportunities for all New Zealanders.” (p. 6)
<i>Priorities</i>	• “economic growth and productivity • value for money • road safety.” (p. 7)
Connecting New Zealand: A Summary of the Government’s Policy Direction for Transport (Ministry of Transport, 2011a)	
<i>Objective</i> (Government’s)	• “...an effective, efficient, safe, secure, accessible and resilient transport system that supports the growth of our country’s economy, in order to deliver greater prosperity, security and opportunities for all New Zealanders” (p. 3)
<i>Key areas of Focus</i>	• “economic growth and productivity • value for money • road safety.” (p. 3)
National Infrastructure Plan 2011 (version 2) (National Infrastructure Unit, 2011)	
<i>Outcome</i>	• “The ultimate transport outcome is an improved ability of people and freight to move efficiently and safely from beginning to end” (p. 22)
<i>Vision</i>	• “A transport sector that supports economic growth by achieving efficient and safe movement of freight and people.” (p. 26)

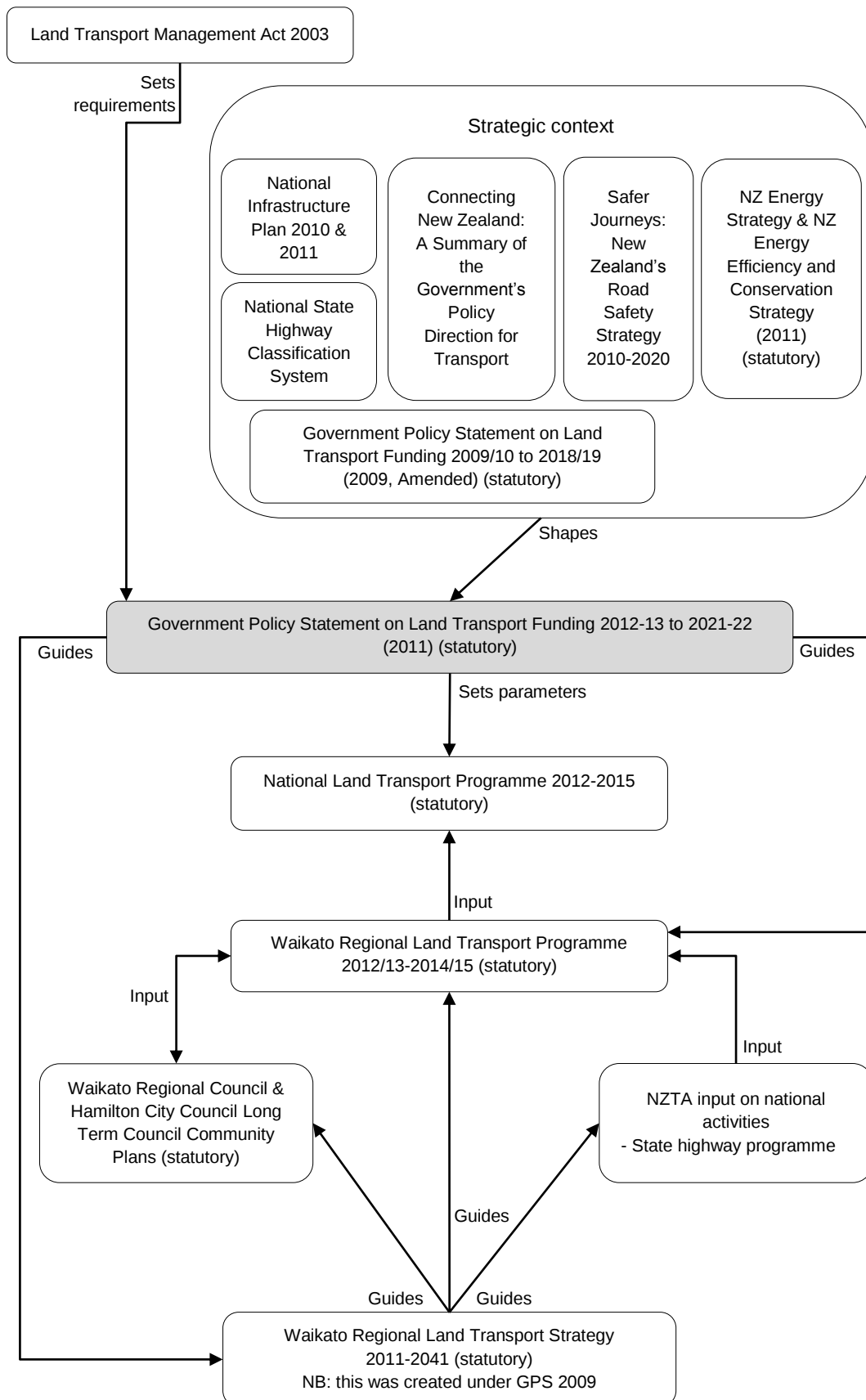
<i>Goals</i>	• “A long-term strategic approach to transport planning which maximises the potential synergies between regional planning and central government strategies. • A flexible and resilient transport system that offers greater accessibility and can respond to changing patterns in demand by maintaining and developing the capacity of the network. Improve operational management practice and the use of demand management tools especially in urban areas experiencing significant growth. • A network of priority roads that will improve journey time and reliability, and ease severe congestion, boosting the growth potential of key economic areas and improving transport efficiency, road safety and access to markets. • A continued reduction in the number of accidents, deaths and serious injuries that occur on the network. • A public transport system that is robust and effective and offers a range of user options that will attract a greater percentage of long term users. • A rail system that enables the efficient movement of freight and complements other modes of passenger transport and freight movement. • Sea and air ports that are linked to the overall transport network to support efficient nationwide movement of passengers, domestic goods and exports and imports and are able to respond to technological changes and changing international safety and security standards.” (p. 26)
<i>Safer Journeys: New Zealand's Road Safety Strategy 2010-2020</i> (Ministry of Transport, 2010)	
<i>Objectives</i>	• “Make the road transport system more accommodating of human error • Manage the forces that injure people in a crash to a level the body can tolerate without serious injury • Minimise the level of unsafe road user behaviour” (p. 10)
<i>Developing our Energy Potential: New Zealand Energy Strategy 2011-2021 and the New Zealand Energy Efficiency and Conservation Strategy 2011-2016</i> (Ministry of Economic Development, 2011)	
<i>Objective</i>	• A more energy efficient transport system, with a greater diversity of fuels and alternative energy technologies. (p. 19)
<i>National Land Transport Programme 2012-2015</i> (New Zealand Transport Agency, 2012b)	
<i>Focus themes</i>	• “Ensuring value for money • Supporting economic growth and productivity • Improving safety • Providing a range of travel choices” (p. 1)

<i>Aims</i> (of GPS)	“...to contribute to achieving ‘an affordable, integrated, safe, responsive and sustainable land transport system’, including ensuring environmental sustainability.” (p. 302)
<i>At a Glance: National Land Transport Programme 2012-15</i> (New Zealand Transport Agency, 2012a)	
<i>Key themes</i>	“Ensuring value for money - Supporting economic growth and productivity - Improving safety - Providing a range of travel choices” (p. 4)
<i>New Zealand Transport Strategy 2008</i> (Ministry of Transport, 2008b)	
<i>Vision</i> (Government’s)	“People and freight in New Zealand have access to an affordable, integrated, safe, responsive and sustainable transport system.” (p. 5)
<i>Objectives</i>	“ensuring environmental sustainability - assisting economic development - assisting safety and personal security - improving access and mobility - protecting and promoting public health”
<i>Getting There – on Foot, by Cycle</i> (Ministry of Transport, 2005)	
<i>Vision</i>	“A New Zealand where people from all sectors of the community walk and cycle for transport and enjoyment” (p. 3)
Regional Government	
<i>Regional Walking and Cycling Strategy for the Waikato Region</i> (Waikato Regional Council, 2009)	
<i>Vision</i>	“Walking and cycling are safe, integrated and accessible activities in the Waikato region.” (p. 34)
<i>Aims</i>	“...”to support the walking and cycling components of the RLTS and the national transport objectives of the NZTS and GPS... - to provide a detailed policy framework and actions, to guide, support and coordinate walking and cycling initiatives in the region - to encourage and promote, through a range of methods, the uptake of walking and cycling in the region - to coordinate the development of an integrated, regionwide walking and cycling network and sub-regional walking and cycling activities where appropriate - to provide information for funding agencies to take account of when assessing funding applications for walking and cycling projects - to support and coordinate with other strategies and plans that focus on walking and cycling outcomes - to provide a monitoring framework which measures progress against identified targets and timeframes - to inform the review of the RLTS and RLTP.” (p. 6)

Waikato Regional Land Transport Strategy 2011-2041 (Waikato Regional Council, 2011)	
<i>Vision</i>	• “An affordable, integrated, safe, responsive and sustainable land transport system that enhances the environmental, economic, social and cultural wellbeing of the population.” (p. 31)
<i>Principles</i>	• “Underpinning the vision are the key principles of safety, sustainability, integration and affordability, consistent with the Government’s vision for land transport...” (p. 31)
<i>Outcomes</i>	For Waikato Region: • “ensuring land use and transport integration • assisting economic development • assisting safety and personal security • improving access and mobility • protecting and promoting public health • ensuring environmental sustainability.” (p. 31)
Waikato Regional Land Transport Programme 2012/13-2014/15 (Waikato Regional Council, 2012)	
<i>Aim</i>	• “...the RLTP contributes to the Government’s aim of achieving an affordable, integrated, safe, responsive and sustainable land transport system” (p. 4)
Local Government	
Access Hamilton: Transport Choices for Everyone (Hamilton City Council, 2010a)	
<i>Vision</i>	• “As a city we will reduce our dependence on cars and in particular minimise single occupancy car trips • Our communities know that every trip counts and take responsibility for travel choices • Our coordinated decisions as transport partners support national and regional objectives and targets, achieve value for money, integrated planning, and make the most out of our existing networks and infrastructure • Safety is a key consideration in all our decisions as transport partners” (p. 2)
<i>Aims</i>	• “Support Hamilton’s economic, social, environmental and cultural well-being. • Support the land use, sustainability and economic development objectives for a compact city with consolidation and intensification around key nodes and a vibrant city centre. • Manage incremental change in the transport and land use system necessary to achieve Hamilton’s strategic objectives. • Position infrastructure and land development to meet the city’s long term needs.” (p. 4)
<i>Provide</i>	• “...an affordable, safe, responsive and sustainable transport system” (p. 4)

Integrated Transport Plan (Hamilton City Council, 2010c)	
<i>Objectives</i>	• “Ensure environmental sustainability • Assist economic development • Assist safety and personal security • Improve access and mobility • Protect and promote public health; and • Integrate transport and land use planning” (p. 2)
Active Travel Action Plan (Hamilton City Council, 2010b)	
<i>Purpose</i>	• “...of Access Hamilton is to deliver an affordable, safe, responsive and sustainable transport system” (p. 2)
<i>Objectives</i>	“This action plan aims to increase the existing levels of cycling and walking by: • Providing safe networks of routes for cyclists and pedestrians • Reducing the number and severity of crashes involving cyclists and pedestrians (Road safety for active travellers [reducing the number and severity of crashes] is addressed in the Transport Safety Action Plan. • Increasing resident’s satisfaction with the provision for cyclists and pedestrians • Promoting active travel and encourage walking and cycling • Increasing the number of students walking or cycling to education facilities • Encouraging good behaviour and respect by both motorised and non-motorised road users • Considering the needs of the mobility impaired whenever changes are made or new construction takes place.” (p. 2)

Appendix D: GPS 2011 in Transport Policy Setting



(Composite of format and data taken from Ministry of Transport, 2011b, p. 5; and Waikato Regional Council, 2012, p. 9)

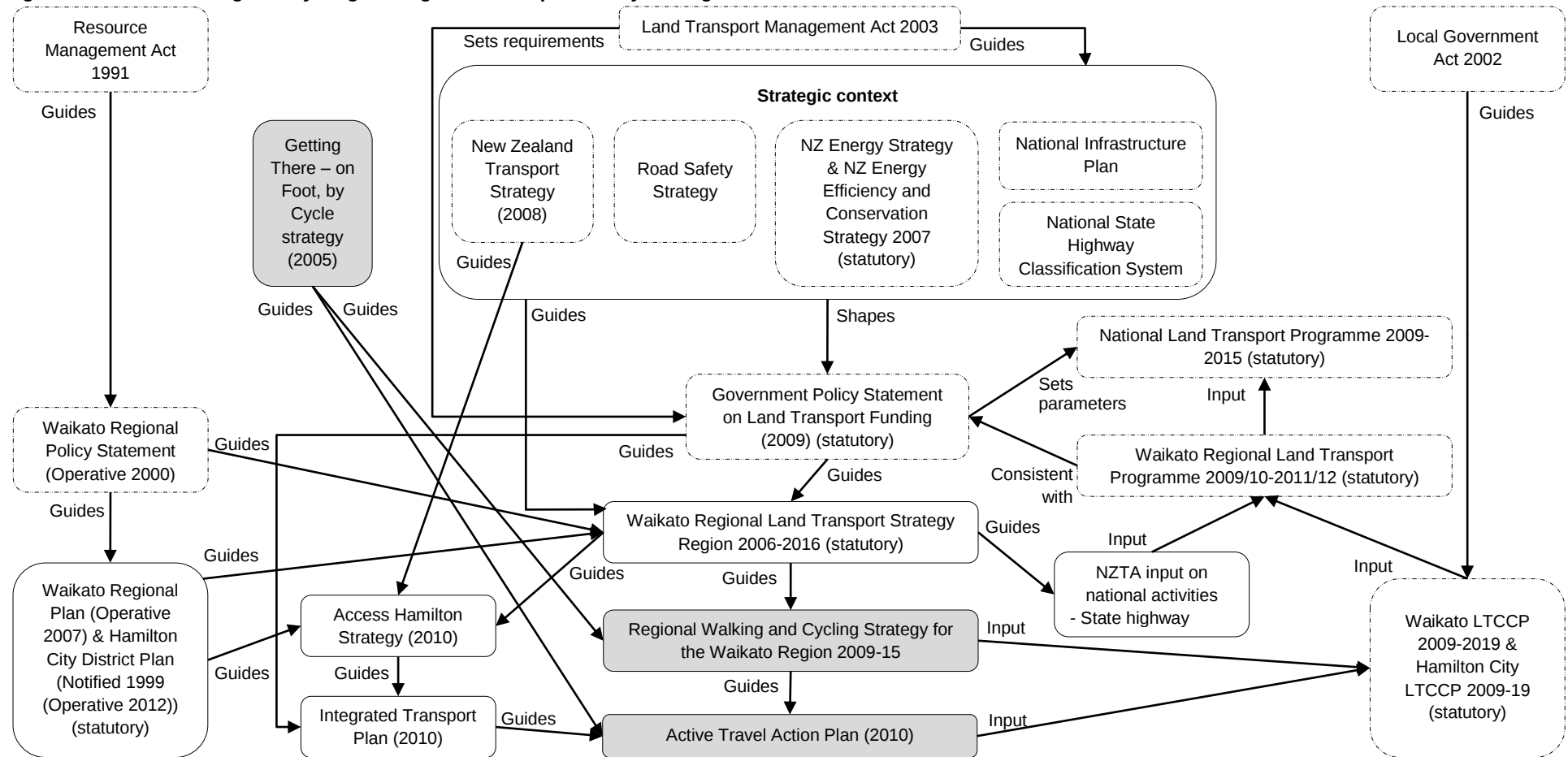
Appendix E: Current Walking & Cycling Strategies in Transport Policy Setting

Figure 8: Current Walking and Cycling Strategies in Transport Policy Setting represents the strategic framework for the walking and cycling strategies (highlighted boxes) from all levels of government in the transport policy setting. The information has been compiled from multiple documents (in particular, Hamilton City Council, 2010b; Ministry of Transport, 2005; Waikato Regional Council, 2009) and attempts to capture how these documents influence each other, and the currency of that influence; the result is a complex framework.

----- Dashed line indicates the document has been amended, superseded, reviewed, or removed since the walking and cycling strategies have been published

Note: Preparation of a National Land Transport Strategy and Regional Land Transport Strategies are no longer required under the LTMA, following the *Land Transport Management Amendment Act 2013* (s.56).

Figure 8: Current Walking and Cycling Strategies in Transport Policy Setting



Appendix F: GPS 2011 Activity Class Definitions

Activity Class	Definition
New and improved infrastructure for State highways	Activities related to managing and delivering a State highway capital improvement programme.
Renewal of State highways	Activities related to managing and delivering a renewal programme for existing State highway assets. Renewal activities are capital expenditure items arising from the deterioration of existing infrastructure assets.
Maintenance and operation of State highways	Activities related to managing and delivering State highway maintenance and operations. Maintenance activities are for managing the physical condition of assets that is appropriate to the level of use. Operation activities are for managing demand and running services to optimise utilisation across networks. Emergency reinstatement for immediate responses to loss of service is included in this activity class.
New and improved infrastructure for local roads	Activities related to managing and delivering capital improvement programmes for local roads.
Renewal of local roads	Activities related to managing and delivering renewal programmes for existing local road infrastructure. Renewal activities are capital expenditure items arising from the deterioration of existing infrastructure assets.
Maintenance and operation of local roads	Activities related to managing and delivering local road maintenance and operations. Maintenance activities are for managing the physical condition of assets that is appropriate to the level of use. Operation activities are for managing demand and running services to optimise utilisation across networks. Emergency reinstatement for immediate responses to loss of service is included in this activity class.
Road policing	Road policing activities delivered by the New Zealand Police.
Public transport services	Activities related to managing and delivering contracted public transport services and total mobility transport services.

Public transport infrastructure	Activities related to managing and delivering the renewal and improvement of infrastructure to support public transport services.
Road safety promotion	Activities that promote, educate, advertise or raise awareness of the safe use of transport networks. This includes road user activities that are required to implement the Safer Journey's Action Plan(s). It also includes reimbursement to towage and storage operators for uncollected impounded vehicles.
Walking and cycling	Activities related to managing and delivering new and improved infrastructure and promotional activities for increasing the use of walking and cycling for transport purposes.
Sector research	Activities related to managing and delivering research into land transport issues. This activity class also includes residual training activities that were agreed as part of the 2009–2012 National Land Transport Programme and previously funded under the Sector training and research activity class.
Transport planning	Activities related to managing and delivering transport planning to improve network, service or asset management plans in response to significant changes in transport demand.
Management of the funding allocation system, including performance monitoring	Activities related to managing the National Land Transport Fund through allocation and expenditure through the National Land Transport Programme. This includes developing, managing and/or monitoring: • associated funding and procurement procedures, policies and guidelines • funding agreements with approved organisations • assistance and advice to approved organisations and Regional Land Transport Committees Land transport inputs, activities and impacts.

(Ministry of Transport, 2011b, pp. 26-27)

Appendix G: Highlighted Activity Class Changes

Activity Class	Definition	GPS
Walking and cycling facilities	Allocate funding, in addition to funding from approved organisations, to new and improved walking and cycling infrastructure for transport purposes. Walking and cycling facilities include: cycle paths, cycle lanes, new footpaths, facilities for crossing roads, shelters and bicycle parking facilities.	2008
Walking and cycling facilities	Allocate funding, in addition to funding from approved organisations, to new and improved walking and cycling infrastructure for transport purposes and promotional activities for model walking and cycling communities. Walking and cycling facilities include: cycle paths, cycle lanes, new footpaths, facilities for crossing roads, shelters and bicycle parking facilities. Promotion activities include cycle maps, skill training and information dissemination.	2009
Walking and cycling	Activities related to managing and delivering new and improved infrastructure and promotional activities for increasing the use of walking and cycling for transport purposes.	2011
Walking and cycling improvements	Investment in walking and cycling that improves capacity and service levels, including promotional activities (e.g. a new cycleway)	2015 (draft)
Demand management & community programmes	Manage or purchase activities which promote safe and sustainable use of land transport networks and services including: • initiatives to improve the performance of the land transport system by changing transport demand • initiatives to encourage a change in travel behaviour • national and local advertising on land transport related issues • national and local promotion of walking and cycling	2008

	• nationally managed road safety education in schools • providing information and education for drivers, operators, road controlling authorities and others.	
--	---	--

Appendix H: Cost of Walking & Cycling Activities

Table 1: Cost of Walking and Cycling Activities for New Zealand

Source: <http://www.nzta.govt.nz/planning/data/funding.html>

		Cycling Facilities			Walking Facilities	
		by Territorial Authorities	by Non Territorial Authorities	by State Highway Authorities	by Territorial Authorities	by State Highway Authorities
2003/04	Expenditure - Local	1,420,780			400,574	
	Expenditure - NZTA	1,423,884		856,789	454,759	399,979
2004/05	Expenditure - Local	1,708,126			187,167	
	Expenditure - NZTA	2,016,414		830,915	310,662	82,083
2005/06	Expenditure - Local	1,995,433			518,263	
	Expenditure - NZTA	2,602,115		674,779	738,868	9,280
2006/07	Expenditure - Local	1,839,334	70,500		1,325,351	
	Expenditure - NZTA	2,381,479	79,500	832,132	1,749,825	131,180
2007/08	Expenditure - Local	4,263,864			3,434,014	
	Expenditure - NZTA	5,144,037		2,876,686	4,181,253	
2008/09	Expenditure - Local	6,522,635			4,013,866	
	Expenditure - NZTA	8,291,865		1,951,840	5,027,145	112,060
2009/10	Expenditure - Local	6,273,552	150,000		4,322,165	
	Expenditure - NZTA	7,766,461	198,963	6,190,321	3,259,739	103,167
2010/11	Expenditure - Local	6,852,792			2,346,398	
	Expenditure - NZTA	6,602,949	633,537	1,214,299	2,937,151	646,212
2011/12	Expenditure - Local	4,061,588			191,661	
	Expenditure - NZTA	5,493,401		1,225,453	260,178	4,600,000
2012/13	Expenditure - Local	3,341,905			1,011,775	
	Expenditure - NZTA	4,294,169		1,444,016	1,205,464	

Table 2: Walking and Cycling Costs for Hamilton City

		Cycling Facilities
		Hamilton City
2003/04	Expenditure - Local	175,769
	Expenditure - NZTA	182,944
2004/05	Expenditure - Local	64,533
	Expenditure - NZTA	82,133
2005/06	Expenditure - Local	352,762
	Expenditure - NZTA	448,969
2006/07	Expenditure - Local	45,480
	Expenditure - NZTA	56,786
2007/08	Expenditure - Local	458,523
	Expenditure - NZTA	560,418
2008/09	Expenditure - Local	416,773
	Expenditure - NZTA	509,390
2009/10	Expenditure - Local	753,666
	Expenditure - NZTA	921,147
2010/11	Expenditure - Local	
	Expenditure - NZTA	
2011/12	Expenditure - Local	156,334
	Expenditure - NZTA	191,075
2012/13	Expenditure - Local	
	Expenditure - NZTA	

Source: <http://www.nzta.govt.nz/planning/data/funding.html>