

8.8 TRANSPORTATION

HARIA I NGAA WAKA



getting
there

■ 8.8 TRANSPORTATION

We tend to take travelling in and around Hamilton for granted, expecting to get to and from where we need to go with ease. However, with traffic volumes rising and the city's population set to grow further, the number of cars on our roads and the travel issues we experience will undoubtedly get worse.

In the past few years rapid growth has occurred in the northern part of the city, for example, in the Rototuna residential area and north western commercial and industrial centre around The Base and Te Rapa. This has placed increasing pressure on the transport system. It is critical therefore that we plan now to ensure transportation will meet the needs of our growing city and will do so in a way that supports vibrancy, choice and liveability.

In 2008 the Government Policy Statement on Land Transport Funding set targets for transportation in the areas of single occupant vehicle use, road crashes and fatalities, freight transfers to other modes, travel time security and public transport usage.

The city's Access Hamilton Strategy, developed in partnership with key transport agencies, responds to these targets in a local context, along with other local priorities and objectives. The strategy identifies a vision for transport development and commits the city to integrated transport and land-use planning. Its approach focuses on balance in the areas of transport planning, infrastructure provision, transport demand management and the ability to respond to a changing environment.

Access Hamilton commenced initially in 2002/03, since then the collective understanding of issues has deepened, thinking around integrated transport has grown and a stronger leadership role within the transport sector has emerged.

Hamilton is now well placed to consider, prepare and act upon its future transport needs, implementing changes that will help to protect the lifestyle we all enjoy whilst maintaining consistent journey times during peak travel times for all forms of transport.

Council's Transportation Activity Group includes the following activities:

Transportation Network

Focuses on providing and efficiently managing a safe, effective and sustainable transport system that integrates freight and private vehicles with other forms of transport such as buses, walking and cycling. Services include the day-to-day operation and maintenance of the existing traffic network (carriageways, footpaths, traffic signals, verges, street lights, bus stops, etc.), planning for future development and growth of the network, developing and delivering network improvements and raising public awareness of the options and effects of travel behaviour and travel choices.

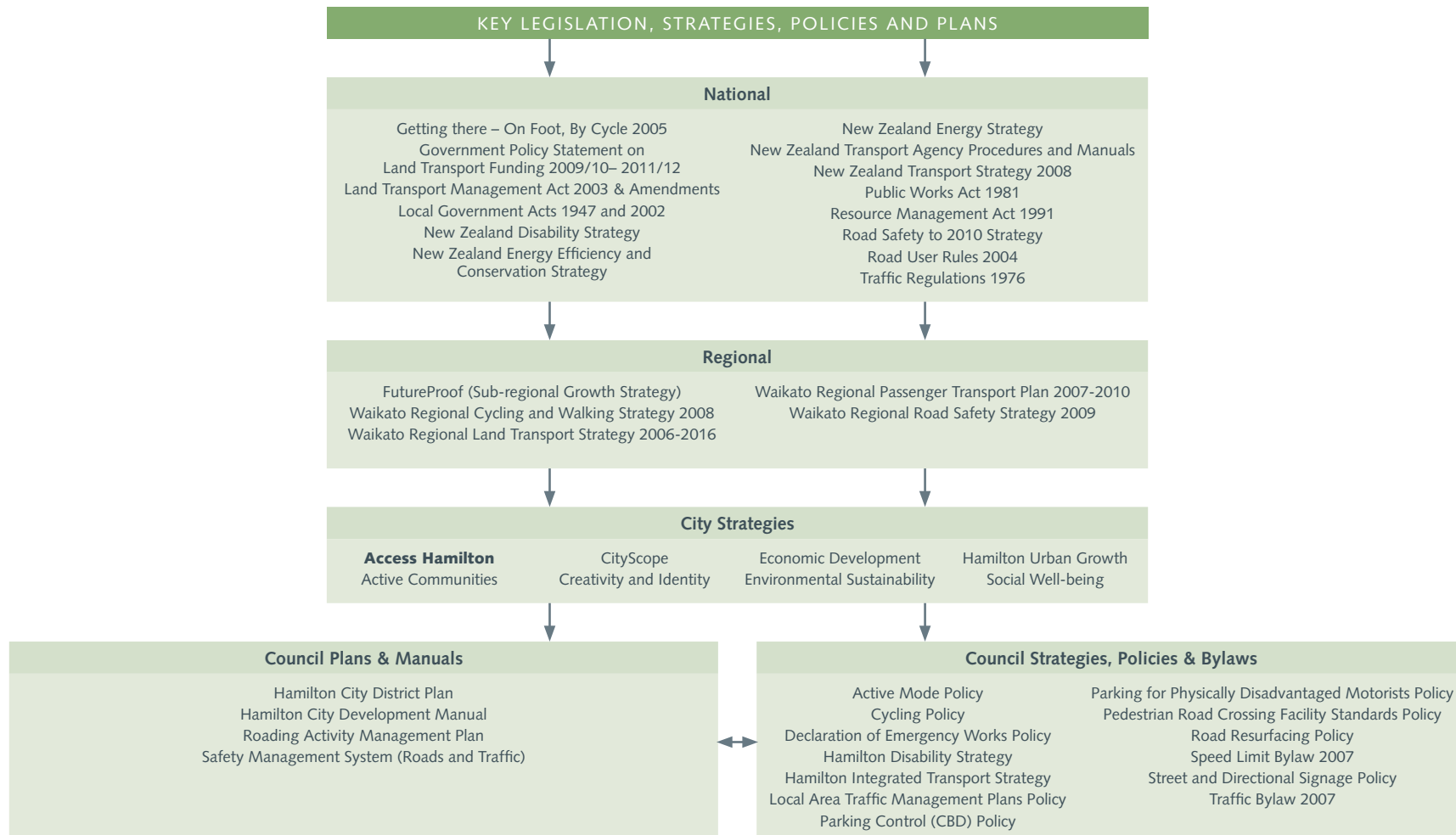
Parking Enforcement

Manages the turnover and availability of on-street and Council operated off-street parking spaces in Hamilton. Parking Officers enforce heavy motor vehicle parking regulations, abandoned vehicle removal, bus lanes and clearways, and give aid and assistance to the public in the course of their duties. This activity also helps to ensure that vehicles in the city are safe for the roads by monitoring warrants of fitness and vehicle licenses.

“recent growth has placed increasing pressure on the transport system”

■ POLICY AND PLANNING CONTEXT

Council's planning and operating environments are shaped by a wider context of national, regional and city wide priorities and objectives. This diagram identifies the key legislation, strategies, policies and plans that link to and provide direction for the Transportation Activities.



“It is critical that we plan now to ensure transportation will meet the needs of our growing city”

■ REASON FOR PROVIDING THIS ACTIVITY GROUP

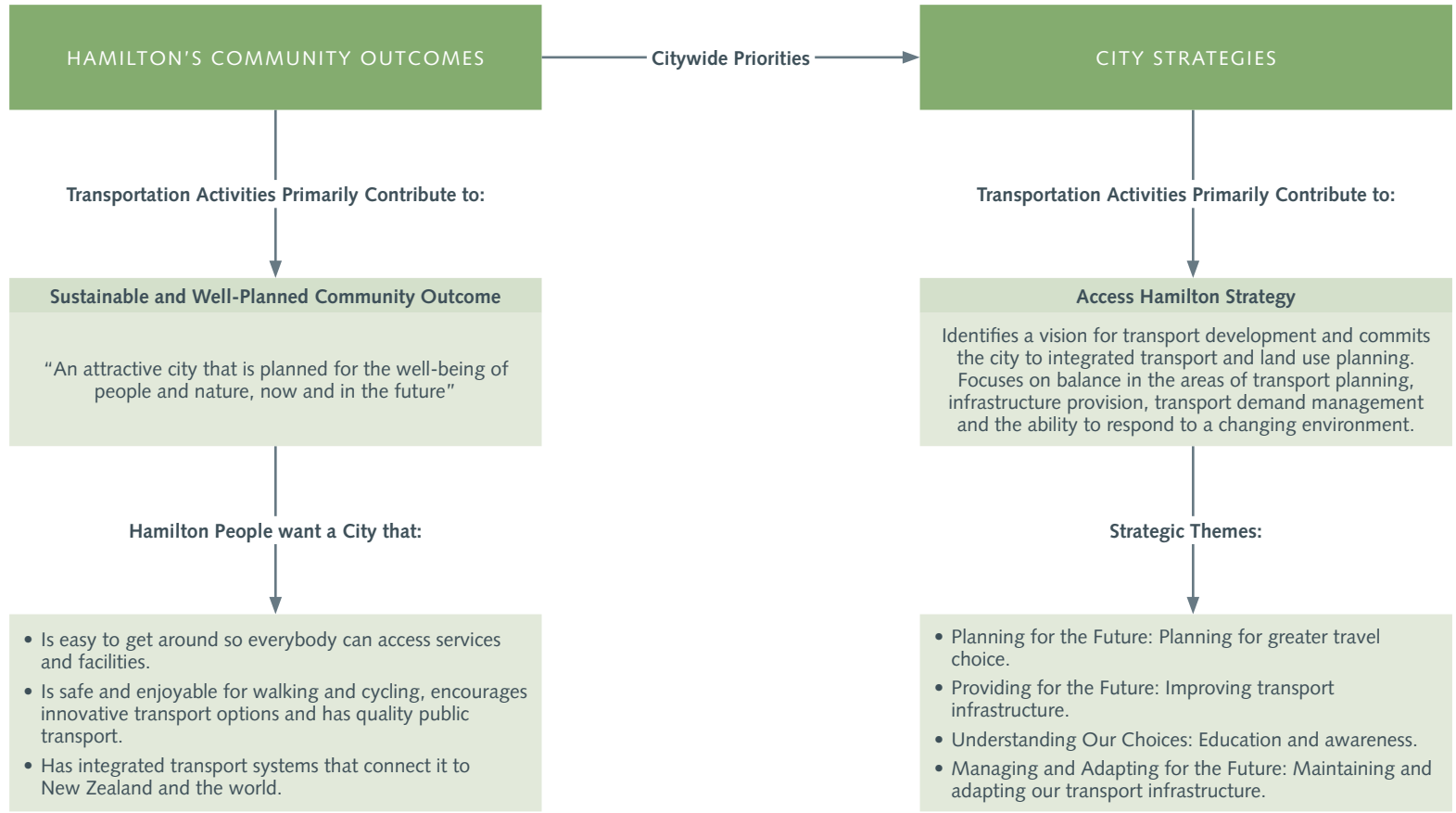
Council's Transportation Activities are about enabling good access around the city by providing and managing an efficient and well-planned transport system that is safe, fit for purpose, provides consistent travel times and carefully addresses parking issues. Doing this ensures that there are good networks for all travellers whether they use cars, public transport, walk or cycle. This is crucial for the economic development, environmental health and social operation of the city.

Council is the owner and controlling authority for most public roads within Hamilton and therefore has a duty to ensure that the roads are safe and sustainably managed, including planning for future capacity and demand. Responsible and sustainable management of infrastructure is a core responsibility of Council under the Local Government Act (LGA) 2002. Council is also required to provide parking enforcement under the LGA 2002 and the Land Transport Act 1998.

Over recent years, respondents to Council's Residents Survey have identified roads, traffic, transport and parking issues as one of the major areas for Council to consider. The high value that people place on being connected with the services and locations they want and need to access highlights the impact of transport systems on people's daily lives and their quality of life.

Hamilton's Community Outcomes and the Access Hamilton Strategy identify the importance of a sustainable and well-planned city that caters for a variety of different transport modes. Council's Transportation Activities have a key part to play in working towards these goals.

■ CONTRIBUTION TO HAMILTON'S COMMUNITY OUTCOMES AND THE CITY STRATEGIES



HOW THE TRANSPORTATION ACTIVITIES CONTRIBUTE TO HAMILTON'S COMMUNITY OUTCOMES

A safe and efficient transport network is essential for economic activities to occur in the city. The network enables goods and people to be moved around the city so that normal daily activities can be undertaken. In addition, the street network is a conduit for other networks such as sewage, data transmission, power, gas and water. It also provides significant areas of public space and amenity.

Part of providing the transport network is about understanding that small changes can make a difference. This includes providing bus shelters to keep passengers dry, crossing points to help pedestrians navigate roads, smoothing crossing points for the mobility impaired and reduced speed zones around schools to promote child safety.

During the design of new routes and upgrading the existing networks, a full assessment is undertaken to ensure safety of vehicle and people movement as well as ensuring that the design meets the requirements of CityScope (Urban Design Strategy) and other environmental outcomes required by district planning. These designs require provision for all modes of transport and especially enhance the movement of the mobility impaired portions of the community.

An ongoing programme driven through Council's safety management system addresses the safety issues on the networks. Many of these safety issues involve a high level of public consultation and education to ensure people are aware of all the transport choices that are available to them and the effects of their transportation choices.

MEASURING PROGRESS TOWARDS HAMILTON'S COMMUNITY OUTCOMES

Progress towards Hamilton's Community Outcomes is monitored through a selection of indicators. Indicators provide ways in which we can measure, directly or indirectly, changes to social, environmental, economic and cultural well-being over time. They provide a picture of what is going on around us that we can use to guide our future planning. Indicators can assist in identifying areas where progress is being made towards the Community Outcomes and alert us to areas that require action.

Council is one of numerous organisations whose actions and direction assist in progressing the outcomes and overall community well-being. The following Community Outcomes Progress Indicators (drawn from the full outcome set – refer Section 3.4) will assist in demonstrating the effect that the Transportation

Activity Group has on progressing Hamilton's Community Outcomes. The monitoring undertaken for these indicators will be reported each year in Council's Annual Report.

Key:

- M = Moderate Contribution
- S = Significant Contribution
- O = Council is the only Provider

Community Outcomes Progress Indicators:

- M Residents' means of travel to work.
- M Car ownership per household.
- M Passenger numbers using public transport.
- O Residents' satisfaction with Council provided cycling facilities.
- O Residents' satisfaction with Council provided footpaths.
- M Road crashes and casualties.
- M Air pollution – particulate matter and Benzene levels.
- M Residents' perception of air pollution as a problem.
- M Residents' perception of dangerous driving as a problem.
- M Road traffic volumes.
- M Residents' satisfaction with the Hamilton City bus service.
- M Residents' perception of traffic congestion when driving on Hamilton roads.
- S Travel times on key routes.
- M Residents' rating of public transport.
- S Number of schools and children using walking school buses.

REGIONAL LAND TRANSPORT PROGRAMME

The Waikato Regional Land Transport Programme (RLTP) for 2009-19 establishes the regional priority for many district transport activities, including all state highway activities and some local road improvements, as outlined in this LTCCP. To request a copy of the RLTP please contact Environment Waikato, phone 07 859-0999.

“Vibrancy, choice and liveability”

MEASURING SERVICE DELIVERY PERFORMANCE

This section includes the intended levels of service for the Transportation Activity Group and the performance measures and targets that Council will use to monitor service delivery performance. The levels of service, performance measures and targets represent Council's service commitments to the community and outline what the community can expect to receive from this Activity Group over the 10 year period of the LTCCP.

The levels of service focus on the key service delivery attributes of this Activity Group. They draw on a number of factors including the aspirations and goals of Hamilton's Community Outcomes and the City Strategies, legislative requirements and national objectives, national and industry standards and community expectations.

This Activity Group primarily contributes to the 'Sustainable and Well-Planned' Community Outcome. The levels of service that specifically contribute towards progressing the goals of these outcomes are identified by the following key.

Sustainable and Well-Planned Community Outcome	
“An attractive city that is planned for the well-being of people and nature now and in the future”	
1	Is easy to get around so everybody can access service and facilities.
2	Is safe and enjoyable for walking and cycling, encourages innovative transport options and has quality public transport.
3	Has integrated transport systems that connect it to New Zealand and the world.

Performance information is provided in detail for the first three years of the LTCCP and in outline for the remaining seven, through a projected target for year 10 (2018/19). Unless otherwise stated, all performance measures will be completed on or before 30 June for each financial year.

A number of performance measures and targets are from Council's Residents Survey and Customer Surveys. The Introduction to the Activity Groups (Section 8.1) provides information on these surveys, including explanations of the performance scores and categories.

KEY SERVICE ATTRIBUTES	LEVELS OF SERVICE	PERFORMANCE MEASURES	TARGETS					ADDITIONAL INFORMATION
			BASELINE	YEAR 1 2009/10	YEAR 2 2010/11	YEAR 3 2011/12	PROJECTED YEAR 10 2018/19	
Quality	The road network is in good condition and is 'fit for purpose'. 1 2 3	The percentage of roads defined as smooth by the New Zealand Transport Agency.	November 2007 result: 85.4%	85%	Survey not undertaken in this year.	85%	85%	This measure is an indicator of the effectiveness of the road maintenance and reseal programmes. It is measured by the New Zealand Transport Agency every two years.
		Residents' satisfaction with:	2007/08 result:					Measured through Council's Residents Survey. A score of 62-67 indicates Fair Performance, 68-72 indicates Good Performance, and 73-76 indicates Very Good Performance for a 'no customer choice' service.
		• Streets in the city in general.	Good performance (score of 70.8)	68 – 72	68 – 72	68 – 72	68 – 72	
		• Cycling facilities.	Fair performance (score of 67.7)	62 – 67	68 – 72	68 – 72	68 – 72	
		• Pedestrian areas and facilities.	Good performance (score of 72.2)	68 – 72	68 – 72	68 – 72	73 – 76	

KEY SERVICE ATTRIBUTES	LEVELS OF SERVICE	PERFORMANCE MEASURES	TARGETS					ADDITIONAL INFORMATION
			BASELINE	YEAR 1 2009/10	YEAR 2 2010/11	YEAR 3 2011/12	PROJECTED YEAR 10 2018/19	
Safety	The pedestrian network feels safe to use. 2	Residents' satisfaction with the safety of pedestrian areas.	2007/08 result: Good performance (score of 70.3).	68-72	68-72	68-72	68-72	Measured through Council's Residents Survey. A score of 68-72 indicates Good Performance and 73-76 indicates Very Good Performance for a 'no customer choice' service.
	Traffic signs and markings are easy to see and understand. 1 2	Residents' satisfaction with traffic management (e.g. road markings, lights, signs and traffic islands).	2007/08 result: Very good performance (score of 73.0)	73-76	73-76	73-76	73-76	
	Lighting is provided to enhance safety for all road users and to aid navigation and security. 1 2	Residents' satisfaction with street lighting in general.	2007/08 result: Very good performance (score of 74.7)	73-76	73-76	73-76	73-76	

KEY SERVICE ATTRIBUTES	LEVELS OF SERVICE	PERFORMANCE MEASURES	TARGETS					ADDITIONAL INFORMATION	
			BASELINE	YEAR 1 2009/10	YEAR 2 2010/11	YEAR 3 2011/12	PROJECTED YEAR 10 2018/19		
Accessibility	Parking spaces are carefully managed to support the economic viability of the city and the promotion of alternate transport modes. 1 2	Coverage of parking officer patrols on a continuous scheduled basis through the CBD and suburbs.	2007/08 result: 82%	75% or greater	75% or greater	75% or greater	75% or greater		
		Turnover of parking spaces in the city that is less than or equal to the time limits set for those areas.	2007/08 result: 83%	75% or greater	75% or greater	75% or greater	75% or greater		
	City streets and footpaths are easy to use and promote cycling and walking. 1 2	Residents' satisfaction with the convenience of the location of pedestrian crossings, paths and access ways.	2007/08 result: Good performance (score of 71.9)	68-72	68-72	68-72	73-76		Measured through Council's Residents Survey. A score of 68-72 indicates Good Performance and 73-76 indicates Very Good Performance for a 'no customer choice' service.
		Kilometres of cycle lanes on existing city roads.	2007/08 result: 91km	94.8km	98.6km	102.4km	110km		Funding provision has been made up to 2014 to provide cycle lanes on existing city roads. The target of 110km is projected for 2013/14.

KEY SERVICE ATTRIBUTES	LEVELS OF SERVICE	PERFORMANCE MEASURES	TARGETS					ADDITIONAL INFORMATION
			BASELINE	YEAR 1 2009/10	YEAR 2 2010/11	YEAR 3 2011/12	PROJECTED YEAR 10 2018/19	
Reliability	Motor vehicle travel times are predictable. ① ② ③	Average travel speed on 5 key routes.	2008 results: Peak AM = 23 km/ph Peak PM = 26 km/ph Non-peak = 37 km/ph	Peak AM/PM = 24 km/ph Non-peak = 35 km/ph	Peak AM/PM = 24 km/ph Non-peak = 35 km/ph	Peak AM/PM = 24 km/ph Non-peak = 35 km/ph	Peak AM/PM = 24 km/ph Non-peak = 35 km/ph	Travel speed is measured on 5 selected main arterial routes throughout the city in March and November each year. The target is to maintain 2008 Journey speed levels.
		Residents' satisfaction with getting around in peak and non-peak traffic.	2007/08 result: Peak traffic – Needs significant improvement (score of 48.3)	45 – 61	45 – 61	45 – 61	45 – 61	Measured through Council's Residents Survey. A score of 61 or lower indicates 'Needs Significant Improvement' and 73-76 indicates Very Good Performance for a 'no customer choice' service. This is a perception measure, which traditionally scores low for people's perception of peak traffic. It is also balanced with the measures of travel times on key routes above.
			Non-peak traffic – Very good performance (score of 76.7)	73-76	73-76	73-76	73-76	

■ SIGNIFICANT NEGATIVE EFFECTS

Although the Transportation Activities provide many vital and important benefits to the community and are a fundamental enabler of trade, commerce and personal travel, there are a number of negative effects arising from both the construction and maintenance of the road corridor and its use by motor vehicles. These negative effects can arise from:

- Construction of the road – noise, dust, etc.
- Use of the land for roads instead of other activities.
- Noise from vehicles.
- Emissions – air and water pollution.
- Accident costs, both economic and social.
- Roads forming possible barriers between areas of the community.

Some of these negative effects are beyond the control of Council, but in many cases measures can be taken to alleviate the effects. This is taken into account during the design and construction of projects through travel demand management and land use planning, through maintenance and replacement programmes, community education and awareness programmes and consultation with the community.

The following table identifies the *significant* existing or potential negative effects for the Transportation Activities. The significance of an effect is determined through its likely impact on and consequences for:

- a) The current and future social, economic, environmental, or cultural well-being of the city.
- b) The extent to which communities are likely to be affected.
- c) The capacity of Council to perform its role, including financial and other costs.

SIGNIFICANT NEGATIVE EFFECTS		HOW COUNCIL MITIGATES OR MANAGES THE EFFECTS
Effects on Sustainability	Roads have a high land requirement and increasing amounts of productive land are used for roads.	Council ensures robust decision-making around land requirements and land use. Road widths are reduced in low use streets, but conversely high use streets require wider road reserve width to accommodate traffic volumes, cycle lanes, footpaths, utility services, safety and noise buffers. Shared use of footpaths by both pedestrians and cyclists is used where practicable to reduce land requirements. Noise and visual buffers require additional land width, but this is minimised where possible. Surplus road reserve land is offered for sale where practicable. Council also promotes alternative forms of transport to maximise the existing road network.
	The construction of new roads has the potential to impact negatively on natural heritage	Construction projects are extensively investigated to identify possible heritage artefacts prior to construction. Consultation with tangata whenua and other affected parties is also undertaken.
	Traffic congestion is a negative effect impacting on most growing cities.	Measures to maintaining consistent journey times during peak travel times for all forms of transport are a key part of the Access Hamilton Strategy. This strategy encourages alternatives to the single occupant of a car and protects residential areas from unwanted and unnecessary traffic/noise/speed. It also promotes the effective integration of land use and transport planning, including opportunities to reduce the amount of trips needed. Traffic controls are also used to minimise delays on the traffic network, such as optimising signal control.
	Road construction and maintenance (for example road resurfacing and street lighting) and vehicle operation have high energy requirements.	Energy use by vehicles can best be mitigated by reducing congestion delays and selecting road surfacing treatments that minimise vehicle operating costs where viable. Alternative street lighting technology with reduced energy requirements is being trialled.
	Negative effect on air quality from vehicle emissions, particularly from busy intersections at peak travel times.	Best practice roading design ensures the efficient and effective movement of traffic throughout the city and minimises congestion points within the road network. Council operates a transport model which is used to minimise congestion and assist in the smooth flow of traffic within the city. Council provides infrastructure to support cycling, walking and bus patronage and promotes these modes through community education initiatives.

SIGNIFICANT NEGATIVE EFFECTS		HOW COUNCIL MITIGATES OR MANAGES THE EFFECTS
Effects on Social Well-being and Safety	Potential for crashes to occur on the road network.	Measures to reduce traffic crashes in the city are included in the road safety strategy. Particularly focus has been given to intersection safety, drink driving, cyclist helmets, speed and restraints. Engineering, education and enforcement programmes are developed in conjunction with Council's major transport partners, e.g. the Ministry of Transport, New Zealand Transport Agency, Environment Waikato, Accident Compensation Corporation, Waikato District Health Board, Sport and Recreation New Zealand.
	Roads can form barriers between sections of the community that are difficult to cross, particularly for pedestrians and cyclists, but even in a motor car.	Council consults the community over all roading projects using a range of mechanisms. It also ensures that provision is made for pedestrians and cyclists within the road network. Construction of user friendly refuge islands, traffic signals, underpasses or overbridges can provide a corridor across the road, but at a significant capital cost.
	Perceived high levels of traffic noise, particularly in residential areas.	All arterial roads carrying greater than 10,000 vehicles per day are surfaced with quiet road surfacing.
	Noise, dust and mud during construction and increased use of roads by road construction vehicles.	Appropriate controls are taken during construction, for example: <ul style="list-style-type: none"> • Reduced speed zones. • Construction techniques that minimise use of transported material. • Route selection and vehicle cleaning. • Special provision for cyclists and pedestrians.
Financial Requirements	Road construction has a high financial requirement.	Road designs attempt to minimise whole of life costs and to make prudent investments for the future. The use of non-engineering and low cost solutions is also investigated.
	Cost of parking in the CBD may reduce commercial activity.	The price for supply and the demand for parking both on and off road needs to be carefully balanced.

■ CURRENT AND FUTURE ASSET CAPACITY

EXISTING KEY ASSETS (AS AT DECEMBER 2008)

KEY ASSETS	DEPRECIATED REPLACEMENT COST (\$000)
Transportation Network	
Roading	421,254
Bridges and Retaining Walls	38,370
Traffic Controls	16,628
Footpaths, Cycleways and Verges	44,265
Central Area Parking	9,526
Transport Centre	2,957
Land	654,829
Parking Enforcement	
Equipment	141
Total Depreciated Replacement Cost	1,187,970

MAINTENANCE AND REPLACEMENT OF ASSETS

Council's objective when maintaining existing assets is to achieve the least whole of life cost, while still delivering the required levels of service. Annual programmes for the maintenance, renewal and replacement of assets are prepared by staff using a combination of asset age and condition information, customer feedback and maintenance records. Council's Transportation Unit determines the programme of work and contracts out design and physical works to ensure that Council obtains the best value for money.

Over past years, a sound programme of renewals has been implemented and the condition of assets has been maintained. However, the average age of some asset types is increasing, and although present condition is adequate, an increase in renewal work will be needed over the next 10 years to avoid a decline in levels of service and overall asset condition. Generally maintenance costs trail the growth in the network, as new assets require little maintenance and the operating costs are relatively low. However, a steady rise in overall

costs is expected as the network expands. As the city's residential areas expand, peripheral roads are subjected to a change in use and the rate of deterioration increases, bringing forward the need for replacement of assets.

ADDITIONAL ASSET CAPACITY REQUIREMENTS

The Access Hamilton Strategy reflects Council's drive towards a total Travel Demand Management (TDM) approach to transportation. In terms of the construction of new assets this means seeing it as one part of a solution to travel management issues. Other tools include parking price and availability, school and business travel plans and education programmes to ensure that the public understand the results of their travel mode selection. This provides Council with an effective, cost efficient, balanced approach to the construction of new assets.

Timing of many of the capital works for new roads is dependent upon other projects such as the New Zealand Transport Agency (NZTA) Te Rapa Bypass project. Close liaison with NZTA needs to be maintained to ensure that these programmes remain synchronised. Growth related capital works will be influenced by the actual rate of growth of the city. Although development contributions will help fund these works, planning and design needs to be sufficiently advanced so that the project can be brought forward or delayed as needed to match actual growth patterns.

Other works are required to respond to capacity restraint by:

- Protection of residential areas by traffic calming or Local Area Traffic Management (LATM).
- Improvements to areas with rising crash rates.
- Planning transport improvements for locations where modelling of future development scenarios show work will be required.
- Implementing recommendations of the Access Hamilton Strategy, which includes the supporting 'Integrated Transport Plan' currently under development.

All programmes balance improvements for all users (freight, vehicles, public transport, cycle, walking) with the environmental effects of the loss of land, community severance, and the effect on noise, air and water and safety issues.

■ COST OF SERVICE FOR THE YEARS ENDED 30 JUNE 2010 – 2019

The following table identifies the forecast expenditure for and revenue sources (including fees and charges, and subsidies), associated with providing the Transportation Activities for the 10 year period of the LTCCP.

The table also includes:

- 1 Capital expenditure by type i.e. growth, renewal and increased level of service.
- 2 Funding source (i.e. loans, subsidies, reserves or rates) for significant assets associated with the Transportation Activities.

FORECAST COST OF SERVICE FOR THE TEN YEARS ENDING 30 JUNE 2010 – 2019										
	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
GROUP OF ACTIVITY – OPERATING STATEMENT										
OPERATING REVENUE										
Activity revenue – User charges and fees	7,830	7,768	8,111	8,330	8,550	8,915	9,151	9,414	9,681	9,939
– Subsidy for operating expenditure	3,421	3,460	3,665	3,808	4,132	4,132	4,267	4,441	4,623	4,964
Targeted rates – Access Hamilton	2,850	1,600	1,800	4,300	5,000	6,000	7,700	8,500	9,000	9,000
Development and financial contributions	2,239	3,522	5,341	5,982	6,674	6,986	7,096	7,572	8,075	8,596
Subsidy for capital works	3,964	10,437	9,619	18,166	19,477	7,096	4,270	4,856	4,207	3,873
General rates	16,852	12,079	19,241	19,082	18,874	19,151	20,456	22,718	23,372	24,017
Other general sources	76	321	292	244	205	154	152	153	149	193
Total operating revenue	37,232	39,187	48,069	59,912	62,912	52,434	53,092	57,654	59,107	60,582
OPERATING EXPENDITURE										
Transportation Network	36,917	37,756	40,111	42,414	46,508	50,015	51,996	53,965	56,199	58,443
Parking Enforcement	3,732	3,752	3,869	3,975	4,089	4,201	4,315	4,444	4,581	4,703
Total operating expenditure	40,649	41,508	43,980	46,389	50,597	54,216	56,311	58,409	60,780	63,146
Operating surplus/(deficit)	(3,417)	(2,321)	4,089	13,523	12,315	(1,782)	(3,219)	(755)	(1,673)	(2,564)

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19
	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
GROUP OF ACTIVITY – CAPITAL AND RESERVES FUNDING STATEMENT										
CAPITAL EXPENDITURE										
Growth	1,078	843	4,586	15,360	27,328	11,925	8,830	10,968	11,810	23,728
Increased level of service	7,055	7,954	19,698	46,094	52,479	20,847	7,937	15,825	9,522	10,601
Renewal	7,297	7,624	10,357	10,415	11,225	10,303	12,556	14,614	13,247	12,625
Total capital expenditure	15,430	16,421	34,641	71,869	91,032	43,075	29,323	41,407	34,579	46,954
Loan repayments	3,613	6,944	7,862	8,193	7,605	7,870	7,456	8,126	8,691	9,395
Transfers to reserves	5,830	5,609	7,851	11,252	12,717	14,250	16,187	17,637	18,951	19,691
Operating deficit	3,417	2,321	0	0	0	1,782	3,219	755	1,673	2,564
Total funding required	28,290	31,295	50,354	91,314	111,354	66,977	56,185	67,925	63,894	78,604
Funded by:										
Operating surplus	0	0	4,089	13,523	12,315	0	0	0	0	0
Funding from non-cash expenses	13,310	17,230	16,981	18,455	20,595	22,625	24,882	26,263	27,768	29,573
Loans raised	6,827	6,867	18,288	46,855	63,856	28,474	15,916	26,200	20,717	33,696
Transfers from reserves	5,482	6,978	9,798	11,690	14,164	15,458	15,632	15,858	16,105	16,495
Total funding applied	25,619	31,075	49,156	90,523	110,930	66,557	56,430	68,321	64,590	79,764
Funding surplus/(deficit)	(2,671)	(220)	(1,198)	(791)	(424)	(420)	245	396	696	1,160
Included in the group of activity expenditure above are these costs of maintaining assets	6,374	6,547	6,814	7,080	7,353	7,636	7,933	8,257	8,598	8,938

Group of activity expenditure is not fully funded. See section 2.2 of the Revenue and Financing Policy in Volume Two of this LTCCP for an explanation of the funding shortfall. 'General rates' funding above includes rates from all sources excluding Access Hamilton and water rates which are shown separately where applicable.