Rates Inquiry

Report on The Drivers of Local Government Expenditure

July 2007

Contents

1. Executive Summary

GHD were invited to provide the Inquiry with a critical review of the current and future drivers of local government capital expenditure, and to advise the Inquiry whether the funding requirements identified by local government in their current LTCCPs are broadly accurate.

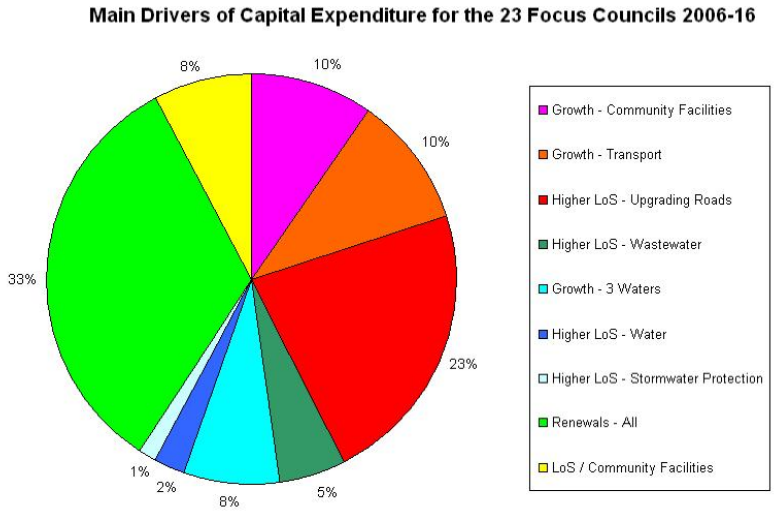
The Second Report of the Department of Internal Affairs lead Local Authority Funding Project team highlighted that for capital expenditure, 73% is related to network infrastructure, 18% is related to community activities and 9% other items.

The focus of this project has accordingly been on the network infrastructure although some consideration is given to community activities.

Since it was difficult to undertake an analysis of all 85 LTCCPs, through a process we identified 23 councils that we have examined in detail. This involved not only identifying councils that were big spenders, but also those having significant increases in capital expenditure between the last year and the first year of the 10 years, and those councils with increases within that period. We recognise that rate payers in smaller local authorities, can also be subject to significant fiscal pressures even though the dollar increases might be small compared to larger councils.

Drivers of Capital Expenditure

Our analysis has shown that the key drivers for our 23 sample councils are shown as follows:



Overall, this pie chart shows that the drivers for the 23 sample councils are transport (growth and higher Levels of Service) at 33%, renewals at 33%, and growth-community facilities at 10%.

We have also broken this driver analysis into sub-categories of councils – and these are shown in the following table:

Table 1 Sub-Categories of Councils

	All Councils	Auckland Councils	"Growth" Councils	Other Major City Councils	Provincial and Rural Councils
Transport (Growth & higher LOS)	33%	36%	29%	35%	23%
Renewals	33%	35%	15%	43%	27%
Growth Community Facilities	10%	12%	16%	4%	3%
Higher LOS infrastructure	8%	9%	8%	4%	10%
3 Waters growth/higher LOS	15%	8%	32%	13%	37%

This shows that for Auckland Councils, the major drivers are transport and interestingly renewals. The "growth" councils (those of our 23 who are experiencing considerable population growth), are dominated by the drivers of transport, growth - community facilities, and the "3 waters" (water, waste water, storm water). Our detailed analysis shows that the growth elements for these councils comprise 51% of the drivers of capex. The capex of other major cities is dominated by renewals and transport. Provincial and rural council's expenditure is also dominated by renewals, and transport is still high at 23%. Interestingly, for these councils, the 3 waters collectively make up 37% of drivers.

Overall it is clear that transport is a major driver of capex throughout local government.

Accuracy of LTCCPs

To be able to advise the Inquiry whether the funding required as identified by local government in the current LTCCPs is broadly accurate we have broken this task down into several areas. These areas and their conclusions are as follows:

» Trends in capital expenditure – these costs fall off towards the end of the 10 year period and this is most pronounced for major cities (big spenders). This is also very pronounced under the transport category for those councils we have identified as having a strong transport focus. Auckland City Council dominates this issue amongst the 6 councils and their expenditure is high and then falls off due to the dominating effect of the high costs of the Auckland Manukau Eastern Transport Initiative (AMETI).

» Operating costs – for the 23 focus councils, there is an increase of operating costs – for transport (66%) and the 3 waters (50%) over the 10 years.

» Comparing capex and opex – for four case studies, we have identified that the increase in capex has been matched by forecast increases in opex.

» Water supply – this is typically less than 14% of total capex for councils and in a recent survey by Local Government NZ, it was identified that approximately $^{1}/_{3}$ of this 14% is related to the drinking water standards. Councils have not been able to take into account the subsidy that will be available at the time they prepared their LTCCPs. However, attributing the capital costs of upgrading the water supply to the new drinking water standards is highly contentious.

» Wastewater – typically wastewater, makes up 18% of total capex. There are a number of wastewater treatment plants and outfall proposed in the next 10 years around the country. Local government does not know if the governments Sanitary Works Subsidy Scheme (SWSS) will be extended to provide ongoing subsidies for the reticulation of small communities.

» Comparing LTCCPs with LTNZ data – this analysis has shown that the escalation information used by councils from the BERL indicators varies significantly from the indices used by Land Transport NZ. It is our view that local authorities will have significantly understated transport escalation in their LTCCPs.

» Transport capital costs – it is clear that there are some major projects that local authorities have provided for in their LTCCP and Land Transport NZ has not, and vice versa. Land Transport NZ and local authorities need to better coordinate their long-term capex programmes.

» Capital works – local government transport projects are dominated by the high costs of a handful of major projects throughout the country – Auckland Manukau Eastern Transport Initiative, the Penlink Project, the East Taupo Arterial, and the Western Ring Road in Kapiti. These projects, and their potential cost escalation places considerable risk on the reliability of the LTCCPs of those councils.

» Community facilities – this makes approximately 14% of the total costs of councils and this figure is dominated by the Auckland Councils. The major drivers for social and community activities are growth and renewals. Capex is dominated by land purchases for reserves and parks, and their subsequent development, with the major spenders being in Auckland.

From this analysis of LTCCP accuracy, we conclude that the significant concerns are as follows:

» Many councils have not allowed for government subsidies for meeting drinking water standards, and many do not know where they stand with wastewater subsidies due to the unknown future of SWSS.

» Escalation for transport in LTCCPs is considerably understated.

» There are misunderstandings between LTNZ and local authorities on the inclusion/exclusion of projects, and the likely timing of expenditure.

» A few councils have major transport projects and their uncertain financial assistance agreements with government, combined with escalation (given the size of the projects), together create a significant degree of uncertainty for their LTCCP.

» A few councils with major land purchases for community facilities face major cost increases in the future, creating significant uncertainty for their LTCCP.

Industry Issues

There have been submissions to the Inquiry on "infrastructure deficits", but our conclusion is that these are generally related to delayed capital (based on rationing of public funds) and there is little hard evidence to suggest that assets are not being maintained or renewed adequately. There is good evidence that road networks are in fact being well maintained.

The Local Government Act 2002 provisions for financial reporting and accountability ensure that "infrastructure deficits" are reported, and that "gold plating" does not generally occur. We are concerned that councils may not be adequately considering intergenerational equity when they build major new infrastructure and fund both debt servicing and depreciation of the same asset at the same time.

Currently buildability – i.e. the capacity of the construction industry, does not seem to be an issue and local government funding constraints will continue to dictate the pace of capital works programmes.

2. Introduction

The Local Government Rates Inquiry arose as a consequence of public concern in light of financial and rates projections outlined in local authority's Long-Term Council Community Plans, and the rating decisions that flowed from those plans. The Inquiry was to provide the public, key stake-holders and the local government sector with a mechanism to outline issues relating to the local government rating system, and to suggest options to address these issues. The Inquiry is to consider issues relating to the current local government rating, to other revenue raising mechanisms, and to provide recommendations to the government for enhancing rating and other funding mechanisms for local authorities.

The Inquiry's Terms of Reference includes the following task:

Develop an understanding of the drivers for local government expenditure including, growth, the age and state of infrastructure (e.g., public transport, roading, water and wastewater), the requirements of higher standards (e.g., water quality), and other infrastructure demands on both capital and operating expenditure needs.

GHD were invited to undertake this task in the Terms of Reference and the work falls under two key areas:

» To provide the Inquiry with a critical review of the Funding Project conclusions on the current and future drivers of local government capital and operating expenditure.

» To advise the Inquiry whether the funding requirements identified by local government in the current LTCCPs are broadly accurate. This requires an assessment of the quality of data in local authority expenditure requirements.

The assessment was to focus on the critical areas of network structure and where appropriate, community infrastructure. Our approach has been to:

» Draw on the initial database of capital requirements from LTCCPs.

» To undertake research interviews with the Ministry of Health, Ministry for the Environment, Local Government NZ and Land Transport NZ

» To draw on the case studies from the Local Government Funding Project.

» To compare data with the Land Transport NZ database

A significant challenge for GHD in this project is to analyse this data in detail and then aggregate it at a level to enable conclusions to be drawn. Each local authority is a story in its own right but for this report to be meaningful to the Inquiry, aggregated data and conclusions provide the value.

3. Background

In December 2003, the Central-Local Government Forum established the Local Government Funding Project. The Local Government Funding Project (LGFP) was asked to provide an analysis of the extent to which local government funding, now and over the next 8 to 10 years, is sustainable for the communities to which they serve.

One of the four questions asked of the Project team was "what are the drivers of fiscal pressure in the local government sector?".

The report of the Funding Project team in July 2005 advised that the drivers of infrastructural costs included the following:

» Rapid population growth in some areas fuelling needs for expansion of infrastructure networks and more community infrastructure.

» The effects of past under-investment in transport infrastructure (including passenger transport), in particular during the 1980s and early to mid 1990s.

» Many of New Zealand's rural roads were built in the 1950s and 1960s and are nearing the end of their economic life with consequent accelerated demands both for maintenance and ultimate replacement.

» Changing health and environmental standards.

» Requirements in the LGA 2002 to conduct an assessment of water and sanitary services have identified areas for attention, especially as regards small communities.

» Requirements to "fund" depreciation, introduced in 1996, are resulting in rates increases, while at the same time creating political difficulties as local authorities accumulate funds in depreciation reserves. Local government representatives on the team contend that the amendments to the requirement in the LGA 2002 may have removed some of the unintended consequences but have not significantly ameliorated the financial impact.

» Some investment in community infrastructure is required to maintain the quality of life New Zealanders expect, to support central government's economic development goals, and to compete internationally. This has generally, though not exclusively, been cited by metropolitan New Zealand.

» Local authorities have also pointed out that although central government has increased the level of financial assistance for some of these items, this is generally on a dollar for dollar basis with a local contribution (which generally must come from rates).

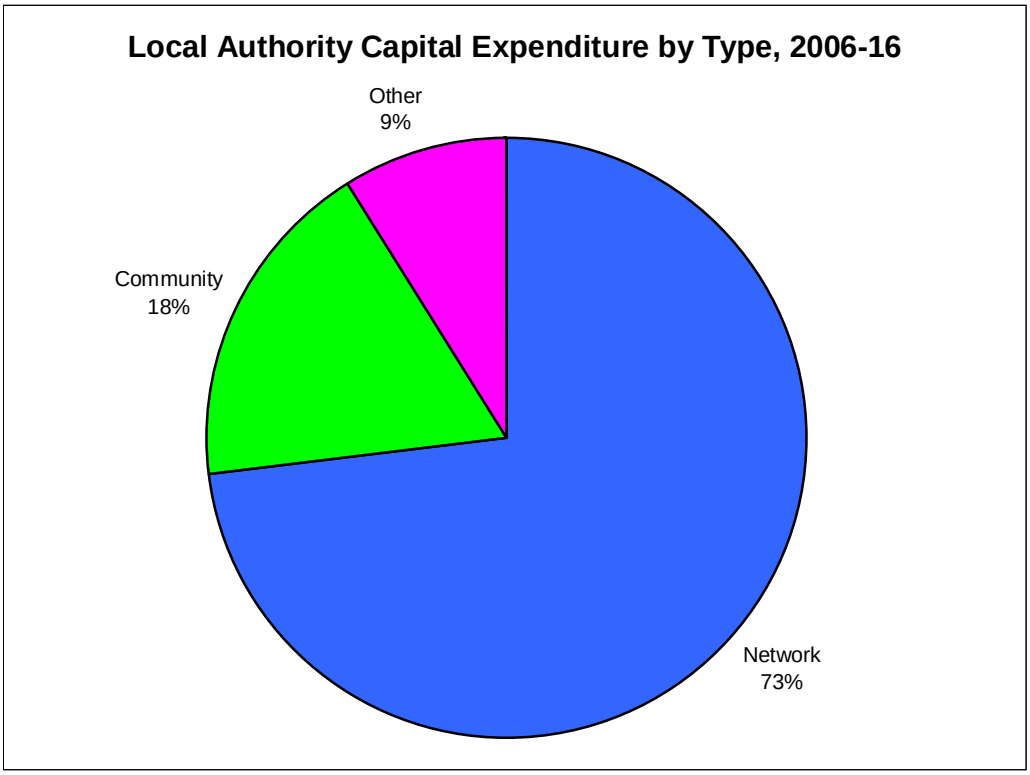
The Second Report of the Local Authority Funding Project team updated the Phase 1 Report and draws some final conclusions on the nature of fiscal pressures on local government in light of further information from the final 2006-16 LTCCPs.

Case studies were undertaken of several local authorities (Dunedin, Manukau, Opotiki, Stratford, Tasman, Tauranga City) and 2 functional case studies (libraries and drinking water).

These case studies had been drawn on for this project.

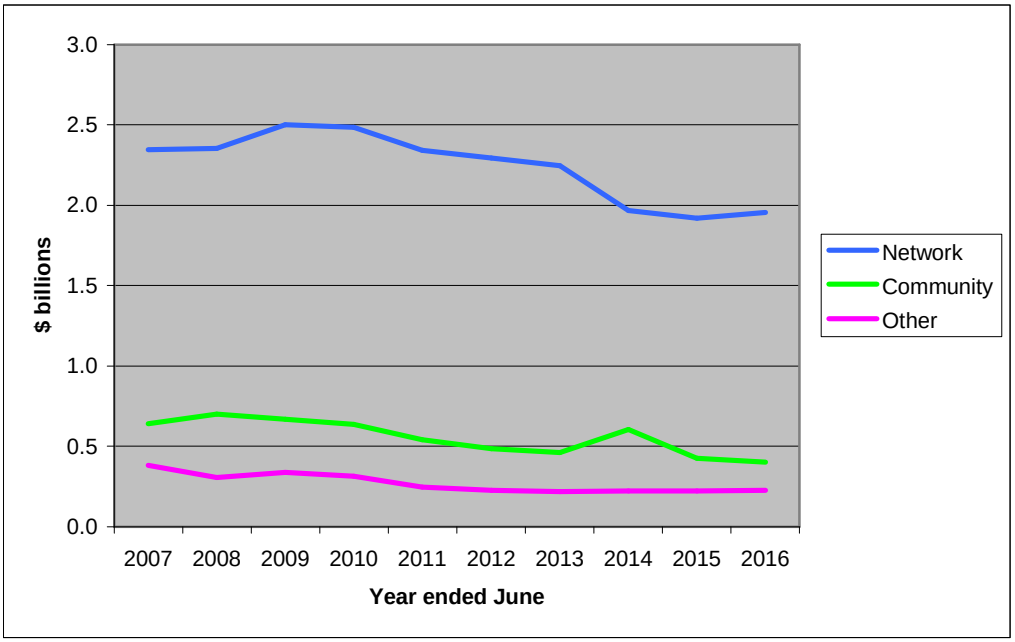
The Project team also compiled information on the size and nature of capital expenditure programmes from the 2006-16 LTCCPs. This indicated that $30.8 billion in capital expenditures is planned for the period to 2006-16 and network infrastructure makes up the majority (73% or $22.4 billion) of local authority capital spending. Approximately 18% ($5.6 billion) of total capital expenditure over the next 10 years will be spent on community infrastructure (libraries, pools, cultural centres, stadia and sports grounds, parks, museums, housing and cemeteries).

Around 9 percent ($2.8 billion) of capital expenditure will be spent on other items such as property, democracy and regulatory functions.



The Second Report also tracked the trend of local authority expenditure in the following graph:

Local Authority Capital Expenditure by Year and Type 2006-16



This showed that local authorities are projecting that annual capital expenditure on all 3 categories will decrease over the 10 years.

This report also identified that providing infrastructure is the key driver of future expenditure needs, highlighting a backlog of deferred maintenance and renewals by some local authorities. It also concluded that there is little hard evidence that legislative changes are a significant driver of costs, and population changes are driving some capital expenditure programmes.

4. Analysis of Drivers of Capital Costs

For this section of the report, we have drawn on the capital works database from the Second Report which provides a database of all council capital works for the period 2006-16. The intention of this section is to quantify the major drivers of capital expenditure over this period.

This analysis has required the selection of a sample number of councils and in each case we have had to review detailed information within individual LTCCPs. The second step was to select the high cost functions that are driving costs in those councils, and the third step has been to analyse those drivers, in dollar terms and percentage terms.

4.1 Selecting Sample Councils

In order to select sample councils, we have taken two approaches. The first was to identify the major spending councils as this helps provide a national picture of what is driving infrastructural costs. However, we were conscious that analysis of the big spenders would not necessarily provide an accurate picture of drivers in provincial and rural local authorities. A 10 percent increase in rates in a rural council hurts ratepayers just as much as a 10 percent increase in large metropolitan councils – even though the quantum of increase might be relatively small.

We **first** chose the top 65 percent of capital expenditure (approximately $^{2}/_{3}$ of expenditure) of local authorities. This represented 17 councils as follows:

Top 65% of total capex from 2006 - 2016 see sheet "$ sum 07-16"		
1	Auckland	$5,313,421
2	North Shore	$1,842,611
3	Christchurch	$1,762,016
4	Manukau	$1,486,821
5	Tauranga	$1,327,974
6	Waitakere	$1,209,053
7	Rodney	$1,034,577
8	Hamilton	$944,816
9	Wellington	$838,767
10	Wellington Regional	$743,138
11	Queenstown-Lakes	$662,488
12	Dunedin	$613,991
13	Far North	$558,147
14	Whangarei	$478,963
15	Nelson	$459,149
16	Rotorua	$458,607
17	Thames-Coromandel	$450,703

Our **second** step was to identify councils facing significant cost increases in percentage terms. Therefore, we listed those councils with a greater than 15 percent increase in the capital expenditure comparing the 2 years of 2006 and 2016. While many councils have a consistent annual level of capital expenditure year on year, these councils show significant increase in capital expenditure when comparing the last year and the first year of these 10 years. This resulted in the following eight councils being identified:

Increase >15% from 2006 to 2016		
1	Auckland Regional	81.31%
2	Thames-Coromandel	28.98%
3	Kaipara	26.84%
4	West Coast Regional	22.86%
5	Kapiti Coast	22.53%
6	Whangarei	21.88%
7	Ruapehu	20.50%
8	Manawatu	17.89%

However, comparing the capital expenditure increases between the last year and the first year does not necessarily capture the fluctuating increases and decreases in the intervening 10 years. Our **third** step was to thus choose the top 10 councils who have had the highest level of increases in dollar terms (putting aside the decreases) within the 10 years. This was intended to capture those councils that have significant increases within the 10 years and whose capital expenditure may be lower towards the end of the 10 years (i.e., and not captured in our second step above). This resulted in identifying 10 councils as follows:

Top 10 of total capex increases within the 2006-2016 period		
1	Thames-Coromandel	$19,141
2	Whangarei	$10,945
3	Queenstown-Lakes	$8,004
4	Auckland Regional	$6,415
5	Wellington	$5,698
6	Kapiti Coast	$5,467
7	Manawatu	$3,963
8	Rodney	$3,732
9	Kaipara	$3,539
10	Ruapehu	$1,990

There was significant overlap between these councils identified in the 3 criteria (the 3 step process), and provided a sample focus list for our analysis. This focus list and their rankings in terms of our 3 selection criteria, are shown in the following table:

Focus List (alphabetical)

		Increase 2006/16	Spend	Increase within 2006/16
1	Auckland		1	
2	Auckland Regional	1		4
3	Christchurch		3	
4	Dunedin		12	
5	Far North		13	
6	Hamilton		8	
7	Kaipara	3		9
8	Kapiti Coast	5		6
9	Manawatu	8		7
10	Manukau		4	
11	Nelson		15	
12	North Shore		2	
13	Queenstown-Lakes		11	3
14	Rodney		7	8
15	Rotorua		16	
16	Ruapehu	7		10
17	Tauranga		5	
18	Thames-Coromandel	2	17	1
19	Waitakere		6	
20	Wellington		9	5
21	Wellington Regional		10	
22	West Coast Regional	4		
23	Whangarei	6	14	2

Thus our initial list of 17 big spenders, have been complemented by adding an additional 6 councils who have high increases in capital expenditure (% and quantum) over the 10 years – making a total of 23 councils.

As explained earlier, the total capital expenditure over the 10 years is $30.8 billion. The above 23 councils represent a total of $20.9 billion – i.e., 68% of total capital expenditure is captured by selecting these 23 councils. We therefore believe that analysis of these 23 councils would provide a sound and accurate picture of the overall drivers of local authority expenditure.

4.2 Selecting High Cost Functions

By working through each individual council, we identified the functions that contributed to most of the capital costs of those councils. The functions captured by this process ranged from 77% to 97% of total council expenditure with a weighted average across all 23 councils of 82% of capital costs. In other words, the total costs across all councils analysed in this drivers analysis is 68% times 82% – i.e., 56% of total capital costs of all councils.

4.3 Analysis of the Drivers

By analysing each individual council's LTCCPs, we were able to assess the drivers. Establishing categories for drivers is not necessarily straightforward. We found many councils had, under transport for example, both a growth element and an improved level of service element. Often with roads, these are not easy distinctions to be made – for example, reducing congestion will have a historical element, but the roads still need to be designed for the future with a typical 25 year design life. We expect that many councils will have interpreted this issue differently, and in this report we have shown these categories separately but the pie charts allow these to be considered collectively.

The term “backlog” or “catchup” are often referred to and there is a need to understand whether this is backlog maintenance or backlog capital. These issues are discussed in the “Infrastructure Industry Issues” section, but suffice it to say that capex generally consists of both backlog and future growth provision, and there is usually insufficient information to be able to distinguish which category the costs belong to.

It is also difficult to identify if upgrading of water supplies are being driven by the imminent enactment of the Health (Drinking Water) Amendment Bill. However, this is discussed in depth in section 7.1 of this report.

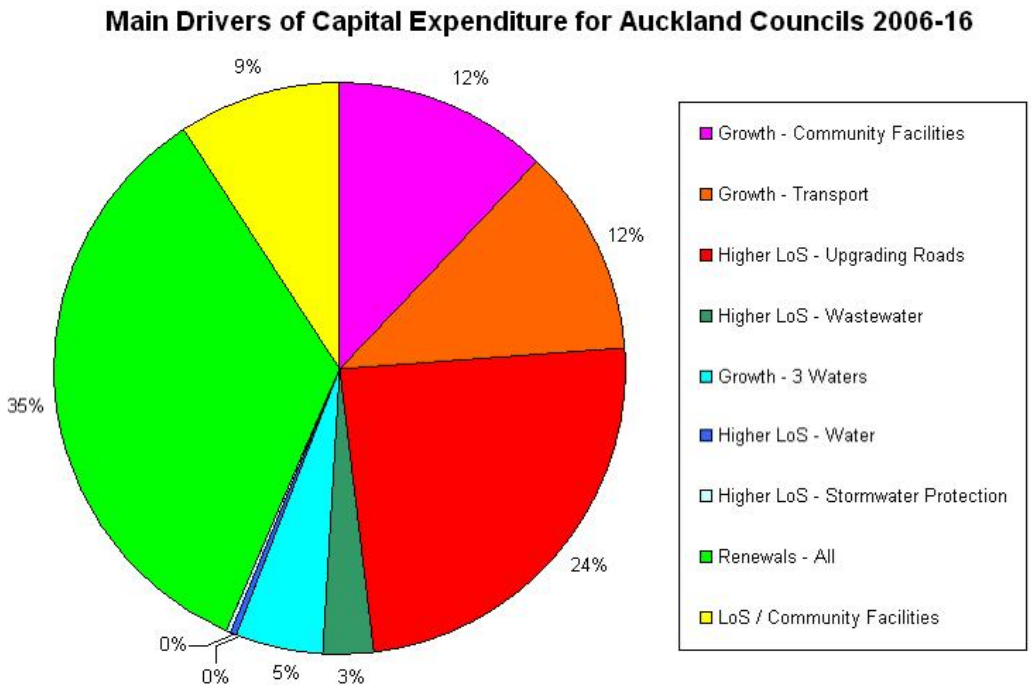
The drivers are explained as follows:

- “Growth” is where the council have identified the driver as population growth, without further explanation
- “Growth transport” is where transport capex has being driven by future growth demands and provides for additional traffic volumes (capacity)
- “Higher LOS” refers to capex being driven by a higher level of service. For roads this would typically be reducing congestion (accommodating past growth), and improving safety. For wastewater it is generally for higher effluent standards and for water - higher drinking water quality, but could also include reduced overflows or reduced leakage.
- “Renewals” refers to the capex being driven by extending the life of an asset at the same level of service.

We have undertaken this driver analysis under the categories of Auckland councils, “growth” councils, other major cities, and provincial and rural councils.

4.3.1 Auckland Councils Drivers

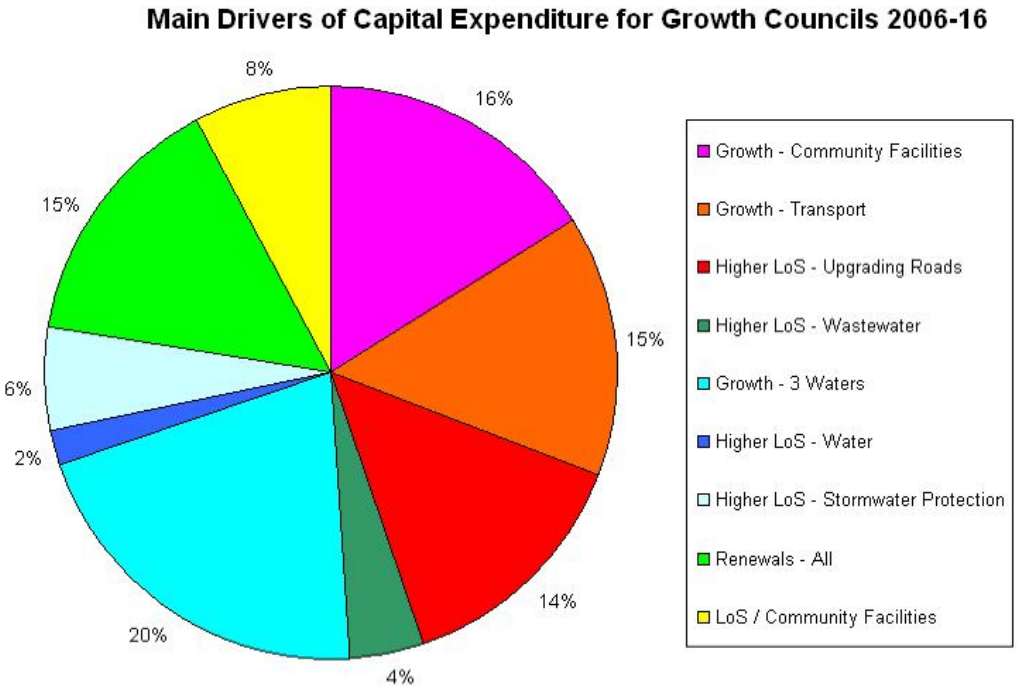
The Auckland Councils we have chosen are Rodney, Waitakere, Auckland City, Manukau City, North Shore City, and Auckland Regional Council. The drivers are as follows:



This shows that in Auckland the major drivers are transport (growth and higher LOS) at 36%, renewals at 35%, and growth community facilities at 12%. This growth - community facilities, is mostly Auckland City Council's "Arts, Community and Recreation" which is predominately land purchases. These 3 drivers comprise 83% of the drivers for the Auckland Councils.

4.3.2 "Growth" Councils

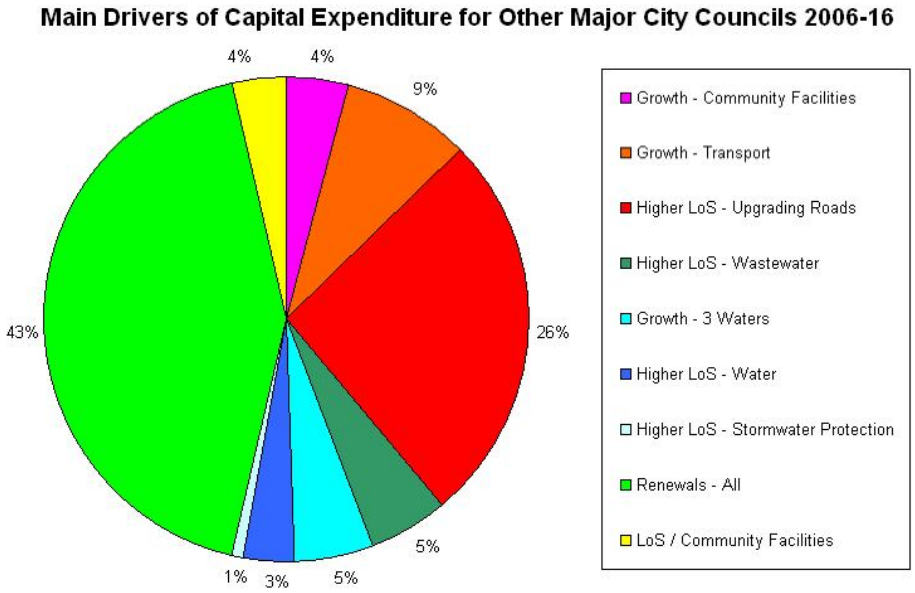
The growth councils in this analysis are the councils in our 23 that are experiencing considerable population growth. These councils are Queenstown Lakes District Council, Kapiti Coast District Council, and Tauranga City Council. Their drivers are as follows:



This shows that the major drivers are transport (growth and higher LOS) at 29%, 3 waters (water supply, wastewater, stormwater) at 32%, growth – community facilities, at 16% (Queenstown and Tauranga open space), and renewals at 15%. All the growth drivers (transport, 3 waters, community facilities) comprise 51% of capex. The main 4 drivers comprise 92% of the total drivers.

4.3.3 Other Major City Councils

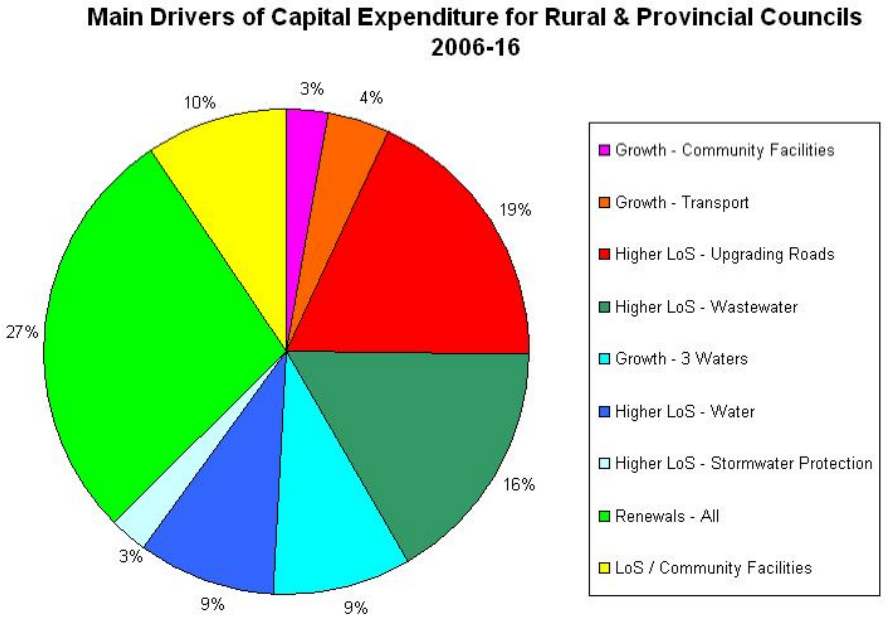
The other major cities in this analysis are Christchurch City, Hamilton City, Dunedin City, Wellington City and the Wellington Regional Council. Their drivers are as follows:



This shows that the major drivers are transport (growth and higher LOS) at 35% and renewals at 43%. These 2 drivers comprise 78% of the total drivers.

4.3.4 Provincial and Rural Councils Drivers

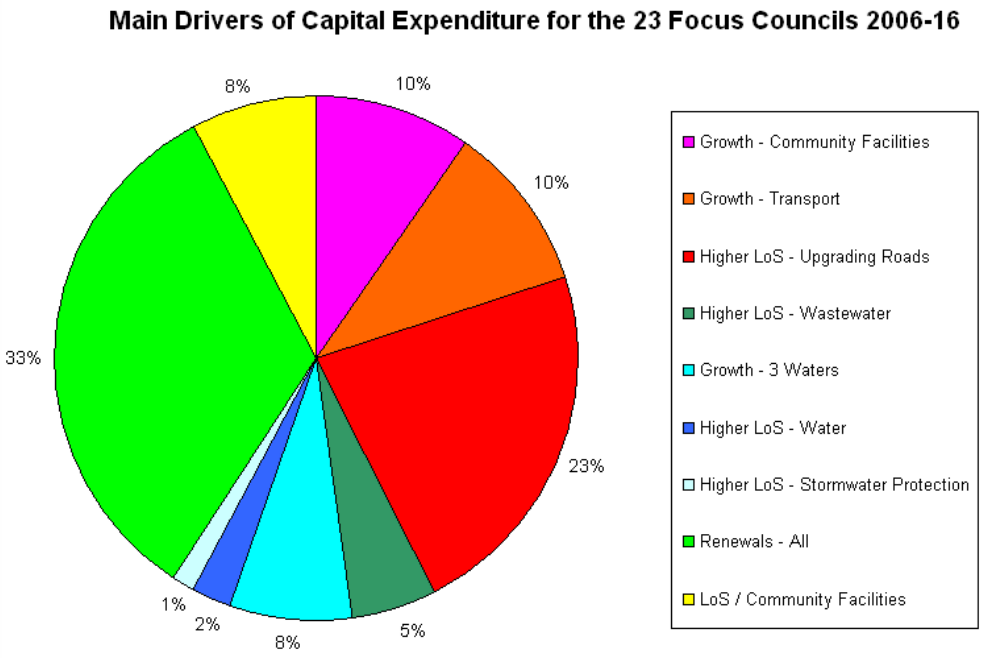
The provincial and rural councils are Far North District Council, Nelson City Council, West Coast Regional Council, Thames-Coromandel District Council, Ruapehu District Council, Whangarei District Council, Manawatu District Council and Rotorua City Council. Their drivers are as follows:



This shows that the main drivers are transport (growth and higher LOS) at 23% and renewals at 27%. The other significant drivers are wastewater at 16%, growth (3 waters) at 9%, and water at 9%. The combined 3 water drivers make up 37% of capex. These drivers comprise 87% of the total drivers.

4.3.5 All Sample Council Drivers

The combined drivers for our 23 sample councils are shown as follows:



Overall, this shows that the drivers for the 23 sample councils are transport (growth and higher LOS) at 33%, renewals at 33%, and growth – community facilities at 10%.

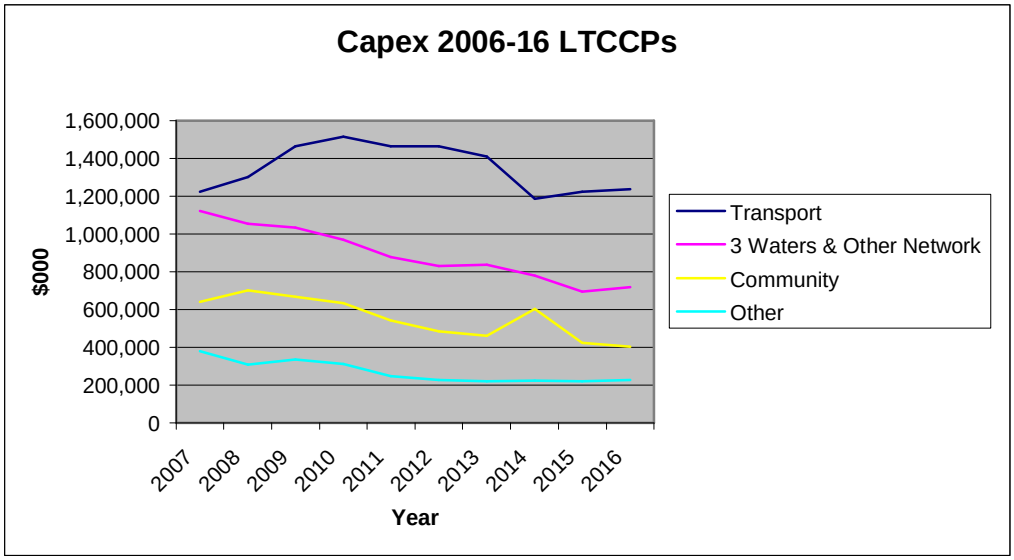
It is interesting to compare the capex drivers for these council sub-categories – this shows that for Auckland Councils, the major drivers are transport and interestingly, renewals. The "growth" councils (those of our 23 who are experiencing considerable population growth) are denominated by the drivers of transport, growth- community infrastructure, and the "3 waters" (water, waste water, storm water). The growth elements of these comprise 51% of their drivers. The capex of other major cities is dominated by renewals and transport. Provincial and rural council's expenditure is also dominated by renewals, but transport is still high at 23%. Interestingly, for these councils, the 3 waters collectively make up 37% of drivers.

Overall it is clear that transport is a major driver of capex through out local government.

5. Trends in Capital Expenditure

5.1 Capital Expenditure – Overview

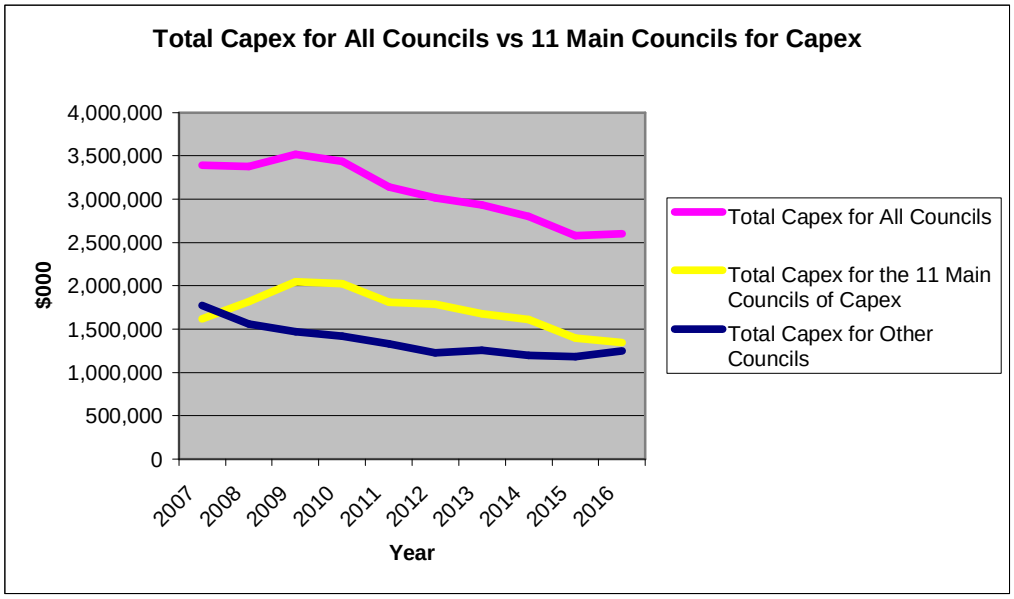
As discussed in Section 2 of this report, the Second Report of the Funding Project Team showed the capital expenditure for all councils, and this trended downwards over the 10 year period. This is highlighted in the following graph which also shows the 3 waters element of capex.



5.2 Capital Expenditure – 11 big spenders

In understanding whether the councils may have understated their capex requirements towards the end of the 10 year period, we have analysed the data both by council size and by function.

The following graph is separates out the 11 major cities (big spenders) and the other 74 councils. The 11 other major councils are Auckland City, Rodney District, North Shore City, Waitakere City, Manukau City, Hamilton City, Wellington City, Greater Wellington Region, Tauranga City, Christchurch City and Dunedin City.



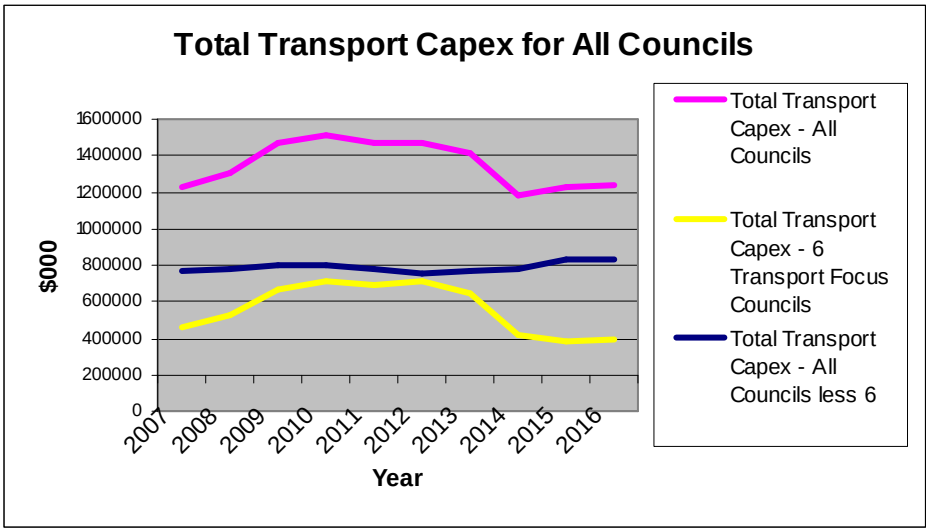
This shows more clearly that there is a decrease for both the 11 main councils and the other 74 councils, although the decrease for the 11 main councils is more pronounced.

5.3 Capital Expenditure – Transport

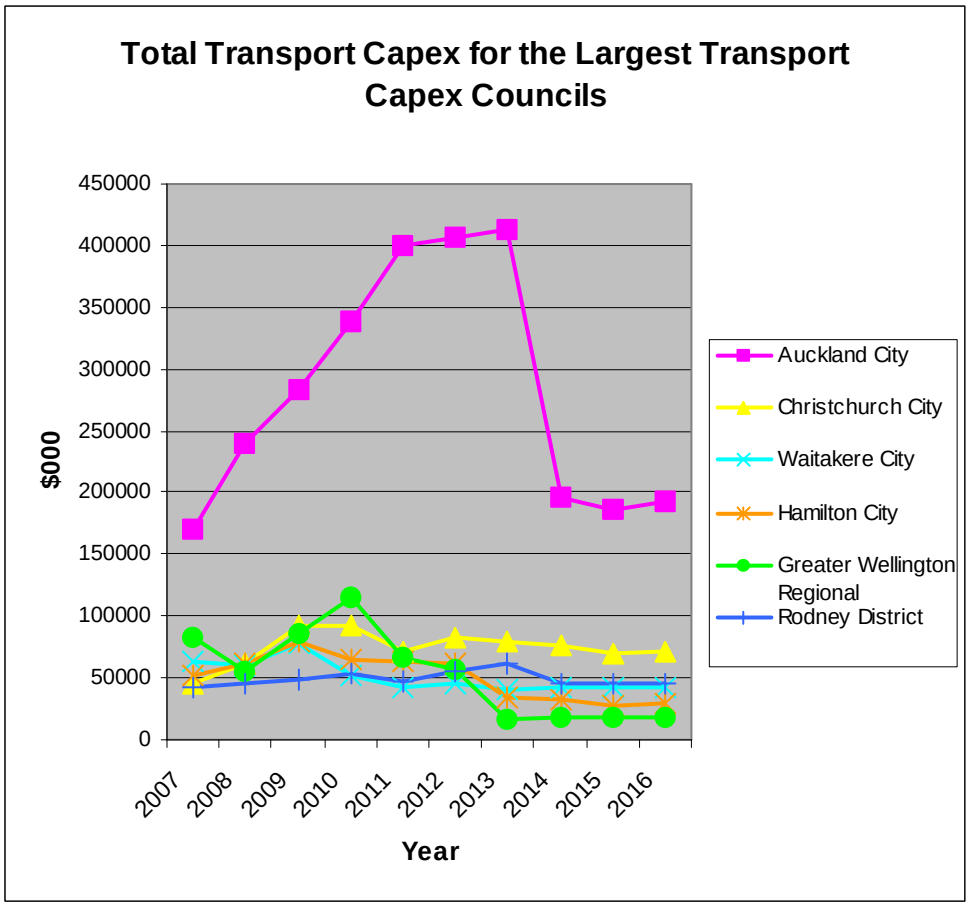
Because transport is such a dominant function, we have separated this out in the following graph. The 6 transport councils are Auckland City, Christchurch City, Waitakere City, Hamilton City, Greater Wellington Region and Rodney District. The Greater Wellington Regional Council funding is for passenger transport, and the others are roading.

The Auckland Regional Council's funding for ARTA is not shown here, but the costs are significant – typically $70 million per annum, with a total of $0.55 billion over 10 years.

This graph shows for transport that the majority of councils have a capital expenditure level at a reasonably consistent level over the 10 years and it is the transport function of 6 councils that is dominating the transport capex picture and the drop off from 2014.



Taking this analysis one step further, we show the 6 individual transport focused councils as follows:



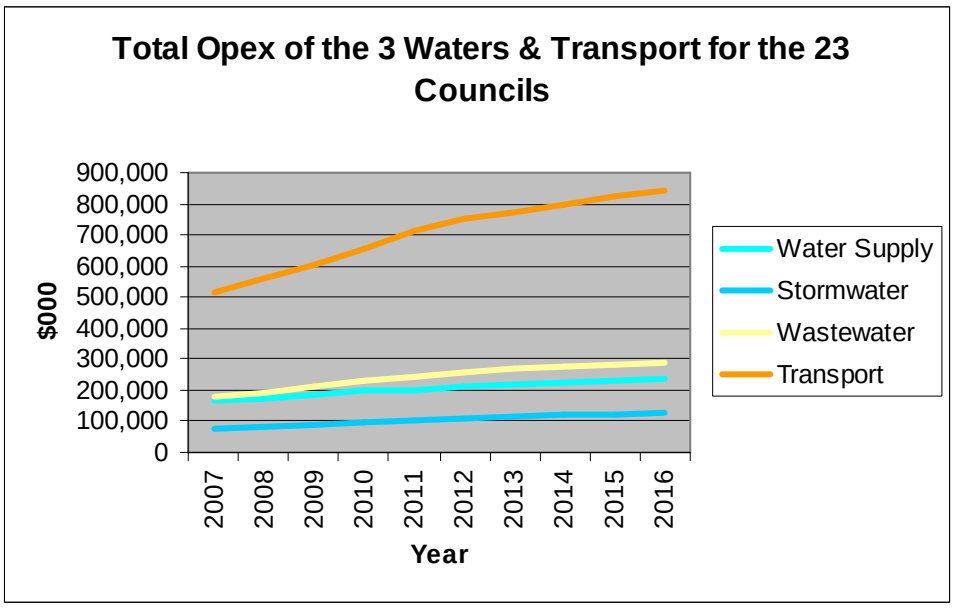
This shows that the Auckland City transport dominate the 6 councils. The Auckland City expenditure levels are so high because of the Auckland Manukau Eastern Transport Initiative (AMETI). The LTCCP shows expenditure of $108 million in 2010, and $220 million in years 2011, 2012, and 2013. The LTCCP shows these costs are offset by a 50% subsidy from government. The Greater Wellington Regional Council's costs are high due to the purchase of rail rolling stock for urban passenger transport. Their LTCCP states that the majority of funding for this will come from government.

6. Trends in Operating Expenditure

6.1 Opex for 23 Focus Councils

Operating costs for local authorities were not analysed in the Local Government Funding Project. We have thus obtained our data by examining the LTCCPs of the 23 focused identified earlier in this report. We wished to consider to what extent local authorities were allowing for opex as one could reasonably expect that opex costs would grow if councils continue to grow their infrastructure.

The graph below is a breakdown of water supply, stormwater, wastewater and transport. Of the 23 focus councils, this shows that for all 4 functions, operating costs grow over the period of 10 years – in transport, more significantly from $500 million per annum to $840 million per annum (66%). The 3 water increase is in the 50% category.

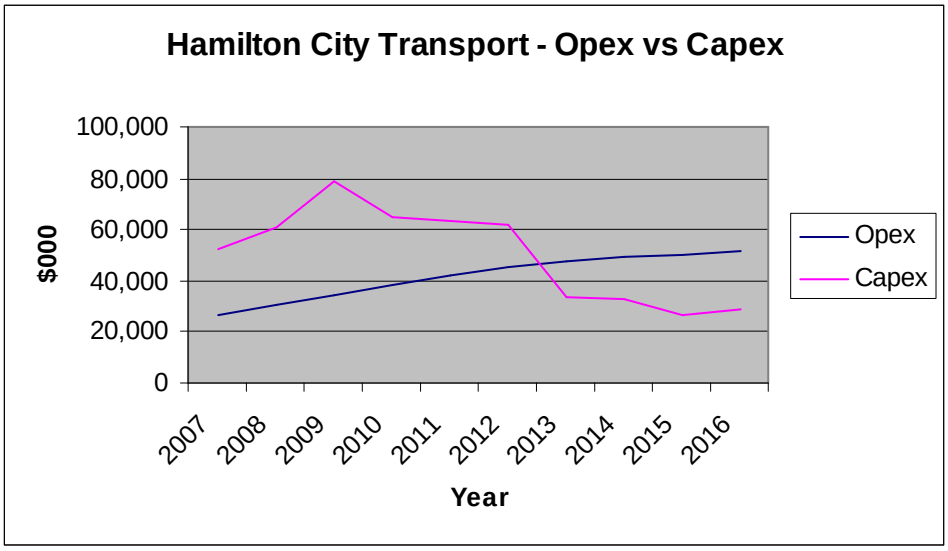


6.2 Comparing capex and opex

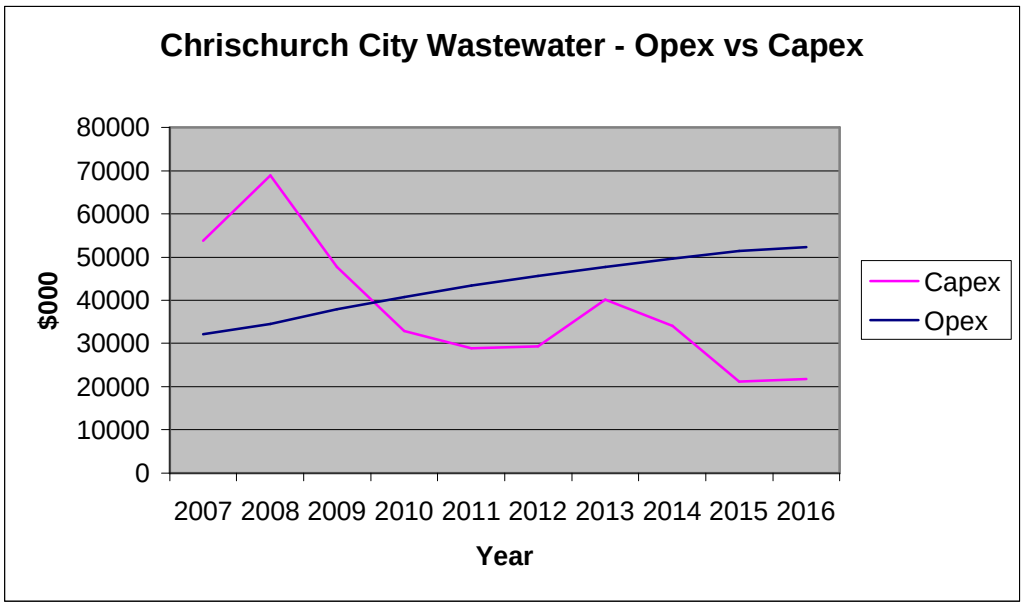
At this point, we wanted to understand on a case by case basis, whether there was a relationship between capex expenditure and resulting opex expenditure. One would expect that for transport, capex has a small influence on opex because usually a capex project is a relatively small part of an extensive transport network and opex costs occur 10-15 years later – apart from debt servicing. For wastewater and less so for water, capex is lumpy and often large, and can trigger immediate operating costs (running a plant for example) and debt servicing.

After examining a number of the trends for these 23 councils, we have chosen 4 case studies which clearly show an inter-relationship between capex and opex.

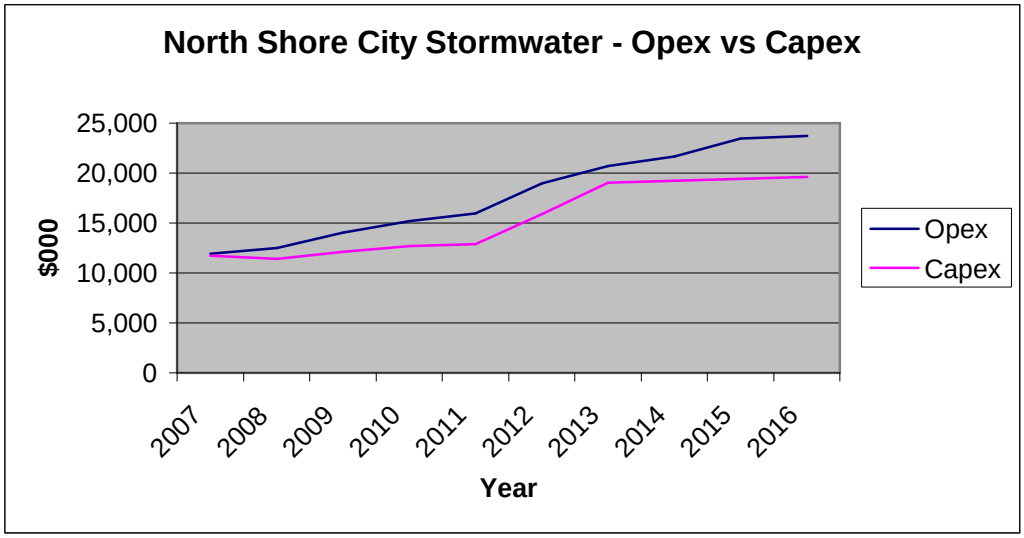
Hamilton City Council transport for example, shows a significant increase in transport costs in the first five years with a resulting increase in opex which flattens as capex decreases.



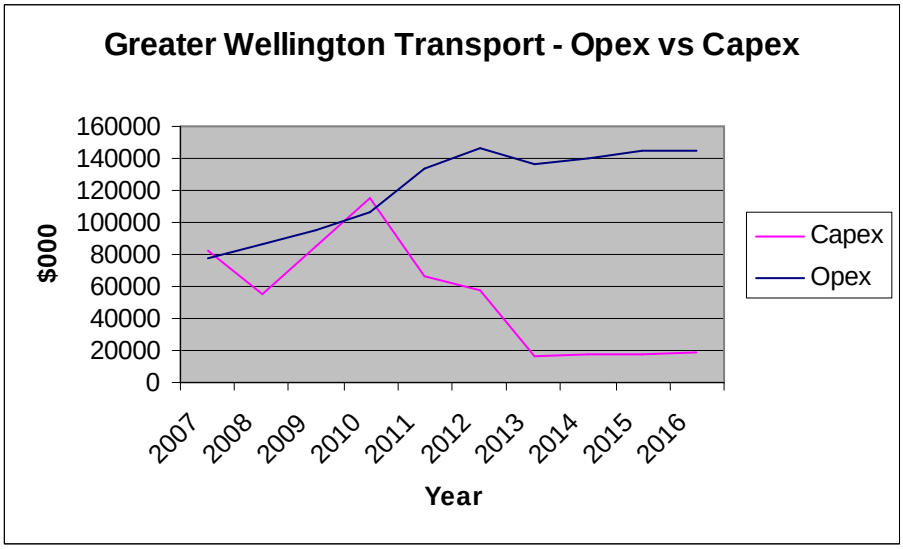
In the case of Christchurch City Council, there are 2 peaks in their capex expenditure (in 2007, this is the ocean outfall pipeline) and over the period there is a significant increase in opex – again, flattening near the end of the 10 year period.



For North Shore City stormwater, capex gradually increases over the 10 years, and opex correspondingly continues to increase over the 10 years.



For Greater Wellington Regional Council for transport, the capex has particularly peaked in 2010 to 2011 with the purchase of passenger transport rolling stock and then falls away. The parallel with this is the operating expenditure climbs all the way through to 2013, but then flattens off as the capex level flattens off.



It can be concluded from these case studies that many local authorities have co-related their capex and opex requirements. As noted in the first graph, opex is increasing for all councils across all major functions.

Information from the other councils shows a similar increasing trend with capex although not as marked as shown in the above 4 case studies.

7. Water and Wastewater Capital Expenditure

In order to have a better understanding of the other key functions in addition to transport, we have done a specific analysis of water supply and wastewater. For this exercise, we have taken a mix of the big spending councils on this function and those recommended to us.

7.1 Water Supply

For water supply, we have examined 19 councils based on high water expenditure councils and those recommended to us by the Ministry of Health. At this level of analysis, some councils had combined the capital costs of functions – e.g., water and waste, or wastewater and stormwater, which have been difficult to analyse.

However, for these 19 councils, average capital expenditure on water supply comprises only 14% of their total capital expenditure. The high percentage expenditure councils for this function were Marlborough District Council (35% of total capex), Grey District Council (38% of total capex) and Hauraki District Council (30% of all capex).

This analysis identified that there are major water treatment plants to be installed in the Thames Coromandel District Council, Dunedin City Council, Timaru City Council, Taupo District Council, Gisborne District Council, South Taranaki District Council, and Southland District Council.

With regard to the drinking water standards, we have drawn on recent survey information received from Local Government NZ. This survey asks those councils what their total annual water expenditure was in their LTCCP and the percentage related to complying with the Drinking Water Standards NZ 2005. At the time of preparing this report, 30 councils had responded to the questionnaire. Comparing this with the capex database provided by the Second Report, for these same 30 councils, water supply makes up on average only 13% of their total expenditure.

This shows that for both the 19 councils above and the 30 councils in the Local Government NZ Survey, water is generally a small part of their capex programme.

The Local Government NZ Survey also shows that of the total water capital expenditure, 32% of it is related to the new drinking water standards – i.e., on average, for these 30 councils, this is approximately 4% of their total capex (i.e., 32% of 14%). This shows that drinking water standards are responsible for only a small part of the total capex of councils.

It should be noted that for both the 19 councils we chose and the 30 councils identified in the LGNZ Survey, there is a strong bias towards councils with high costs for water supply and the drinking water standards cost requirements. It can thus be expected for the rest of the local authorities, these percentages would be lower.

Therefore, it can be concluded that in general, water supply capital expenditure for councils nationally is less than 14% of the total capex, and that expenditure to comply with drinking water standards is approximately a third or less than this.

Of course, this does not take into account the Ministry of Health's Capital Assistance Programme (CAP) that will provide subsidies for small communities (less then 5,000 population) and with a high deprivation index, and high health risk. The supplies most likely to receive funding will receive a subsidy greater then 65%. An example is a community of less than 3,000 population with a deprivation index of greater than 7, will receive a subsidy of 70%. This scheme is now underway with the first applications now being considered by the Ministry of Health.

In considering what costs are attributable to the drinking water standards, this is often debateable and in some cases can be highly contentious. A particular case study is that of the Clutha District Council. The Clutha District Council has advised that the costs to meet the drinking water standards water will be approximately $32.3 million. The Ministry of Health conducted an independent review and their view was that significant components of the work were for increases in plant capacity, deferred maintenance and additional storage. The review concluded that the cost directly attributable to the drinking water standards was only $3.6 million. Clutha District Council disputes this and the Ministry of Health and Clutha District Council are currently discussing this difference.

We noted in our analysis of the LTCCPs of these 19 councils, 17 have indicated they had made allowances to meet the standard although they would not have known at the time they prepared their LTCCP the extent of subsidy available (this was launched in November 2006).

7.2 Wastewater

For wastewater, we took a similar approach in selecting sample councils. This was a mix of some of the big spenders on wastewater and also those councils who have been significant participants in the Ministry of Health's Sanitary Works Subsidy Scheme (SWSS). The Subsidy Scheme has predominately been involved in reticulating communities with inadequate septic tank soakage.

In this instance, we chose 9 councils and of these 9 councils, wastewater makes up 18% of their total capex.

The Sanitary Works Subsidy Scheme's major participants are Southland District Council, Far North District Council, Whangarei District Council, Rodney District Council and Rotorua District Council and this involves providing reticulated networks to a wide variety of small communities (population less than 10,000). Subsidy levels are typically 50%.

Another significant component of wastewater capital expenditure is the installation of major new wastewater treatment plants. These are being installed at Wanaka and Queenstown (Project Pure $19 million), Thames Coromandel District Council (Thames $23 million), North Shore City Council (Mairangi Bay Outfall $103 million), Dunedin City Council (Tahuna Outfall and Plant $66 million), Christchurch City Council (ocean outfall

and pipeline), Marlborough District Council ($14 million) and Gisborne District Council ($23 million).

Not all of these costs flow onto rates. Queenstown Lake District Council LTCCP states that project Pure at Wanaka will be funded through land sales and developer contributions, and will not affect rates.

At the time of writing this report, the funds from SWSS are all but fully committed, and the Ministry of Health are conducting a review of the effectiveness of the scheme, and future funding needs. That Review is currently being considered by the Minister.

This means that local authorities that do not have final or provisional approval, do not know if they can expect a subsidy in the future and accordingly, have not allowed for this in their LTCCP.

8. Transport – Comparing LTCCPs with LTNZ Data

8.1 Introduction

In order to provide insights into the accuracy of LTCCPs, we have compared the database of LTNZ with those from LTCCPs. Transport for the purposes of this report is roading activities – the only regional council captured in our 23 councils was the Greater Wellington Regional Council. Their transport activity is passenger transport.

This does raise the issue of Auckland Regional Council's (ARC) transport responsibilities undertaken by the Auckland Regional Transport Authority (ARTA). Transport is 50% of the ARC's rates in 2006/07 and their LTCCP shows that over the 10 year period, they will be spending $1.08 billion on opex, and $0.55 billion on capex. The LTCCP also points out that there is a funding gap of the order of $700 million.

These major funding requirements have not been considered further in this report. The information provided in the ARC LTCCP does not indicate the major drivers (growth etc), but the need to upgrade Auckland public transport system is well known and reported elsewhere.

8.2 Operating Costs

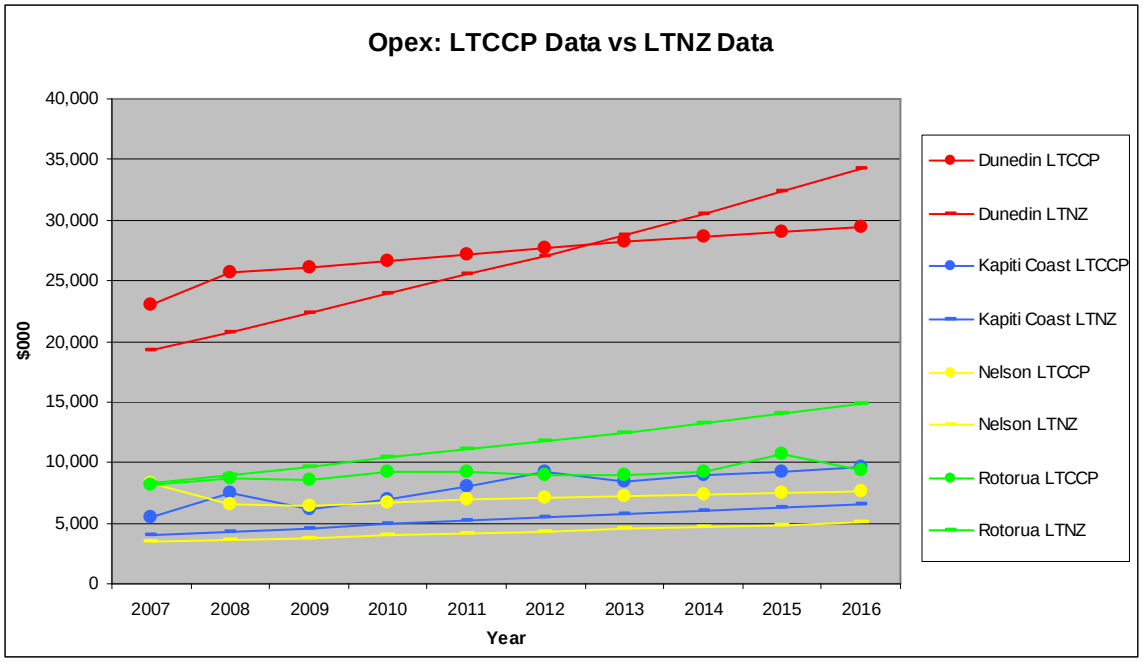
We have obtained a comprehensive database from Land Transport NZ on the information provided to them by local authorities, and it also includes some assessment by Land Transport NZ of LTCCPs.

Comparing LTCCP data and LTNZ data, has not been easy. We have had to select some LTCCPs where we have been readily able to remove depreciation and interest costs. In addition, councils have correctly included renewals (e.g. carriageway resurfacing) as a capital item, but it is shown by Land Transport NZ as a maintenance item.

So, again we have only been able to use those LTCCPs where we have been able to separate out the renewals item.

Also, some councils have not separated out the non-subsidised roading portion although this is often relatively small compared to subsided roading.

The result are the following graphs of operating costs for Dunedin City, Kapiti Coast District Council, Nelson City Council and Rotorua District Council.



It is clear from the graph that the indices for escalation used by Land Transport NZ, and the 4 local authorities are very different. The Land Transport NZ data has allowed for both scope increases and price increases that range over 10 years from 5% through to 7% per annum, showing an increase varying from region to region – Dunedin City and Rotorua City (78%), Kapiti Coast (64%), and Nelson City (45%).

However, the 4 councils in their LTCCPs have typically used the BERL inflation adjustors – or typical increases of 1.5% to 2.6% per annum. This varies between the councils but for these 4 councils, the 10 year inflation figure ranges from 16.9% to 18.2%.

This raises a very a significant issue. In discussing this with Land Transport NZ staff, they are strongly of the view that the figures used for transport by BERL significantly understate the cost escalation occurring in the transport industry. In other words, many councils by using the BERL indicators may significantly understated their future operating costs.

8.3 Escalation

The report of the Ministerial Advisory Group on Roading Costs – Auckland 2006, reports that diesel and petrol costs, which contribute to the costs of asphalt and fuel, have increased 100% between 2001 and 2006. Annual maintenance expenditure for local roads has increased by an average rate of 9% over the 4 year period from 2001/02 to 2005/06. The Report advises that these increases are strongly related to the growth in heavy commercial vehicles which have increased over 4.5% each year, over the same period. These cost increases are far in excess of those provided by the BERL Index for transport.

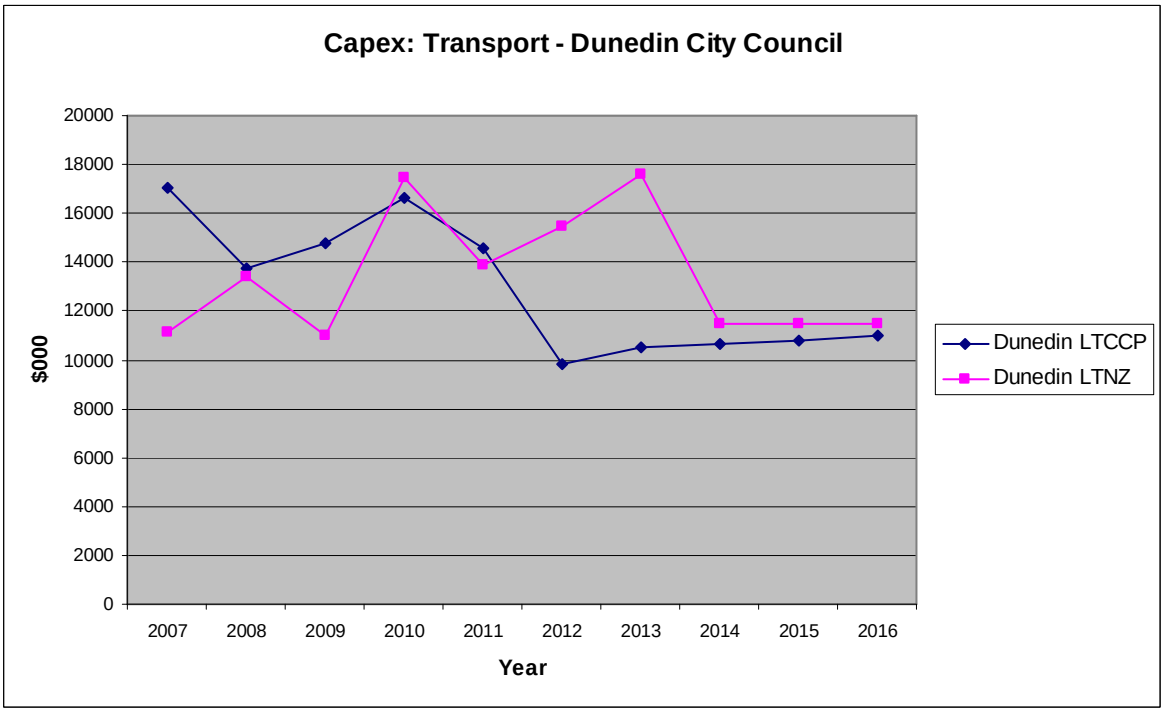
The main drivers of forecast maintenance cost increases for local roads include heavy vehicle traffic, increased requirements for safety, increased temporary traffic management, and higher specification standards.

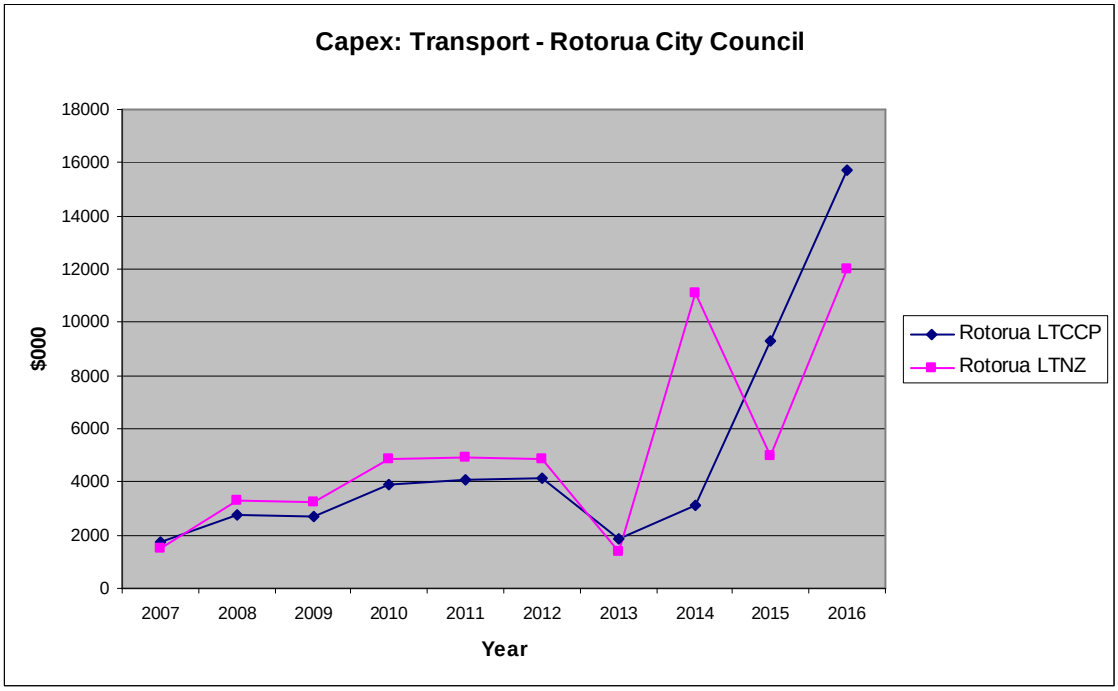
In the future, the Report suggests that future maintenance costs increases are a possible risk for councils that are not conducting pavement deterioration modelling. Also, both Transit NZ and Local Government NZ have faced similar declines in recent years in the number of tenders per contract and there are less than ideal numbers of bidders for contracts in the South Island and the East Coast of the North Island.

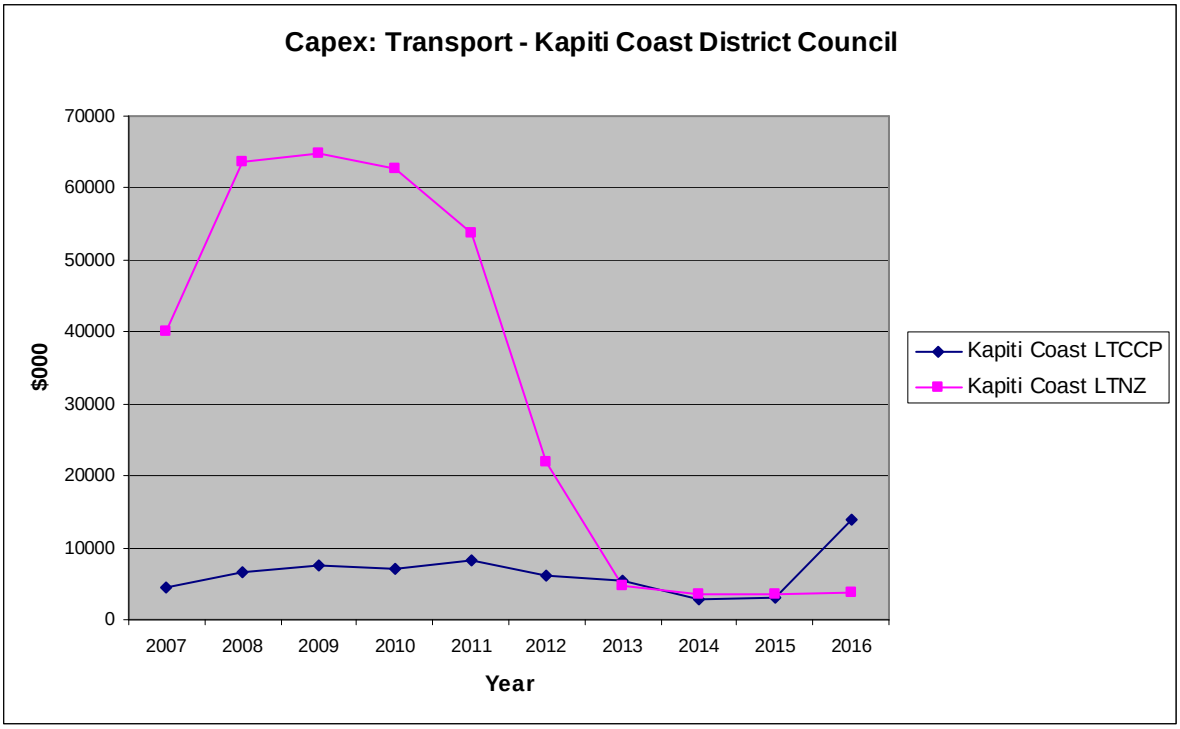
These issues suggest there is considerable doubt on the accuracy of the escalation indices for transport used in LTCCPs.

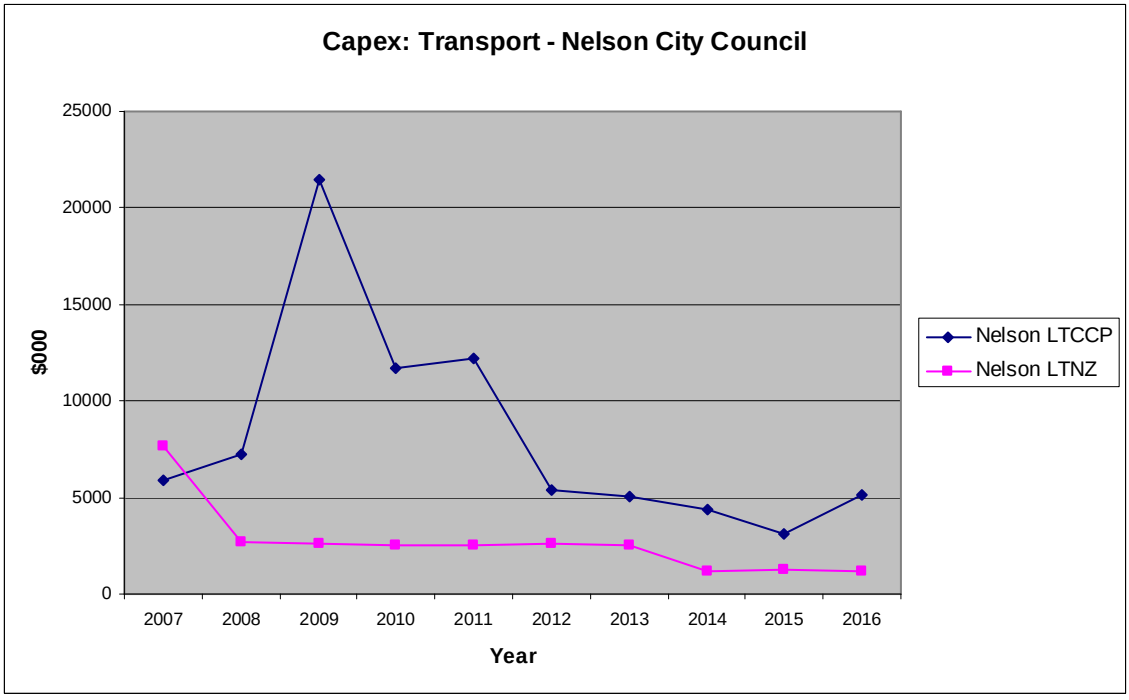
8.4 Capex Transport

For these 4 councils, we have also been able to compare the capital costs from both LTCCPs and the Land Transport NZ database. Again, this has involved taking out renewal costs (carriage way resurfacing) from the LTCCP data, so it can be compared to the LTNZ data. The following 4 graphs show these trends.


Capex: Transport - Dunedin City Council
$000
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
Year
Dunedin LTCCP
Dunedin LTNZ


Capex: Transport - Rotorua City Council
$000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
Year
Rotorua LTCCP
Rotorua LTNZ


Capex: Transport - Kapiti Coast District Council
70000
60000
50000
40000
30000
20000
10000
0
$000
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
Year
Kapiti Coast LTCCP
Kapiti Coast LTNZ


Capex: Transport - Nelson City Council
25000
20000
15000
10000
5000
0
$000
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
Year
Nelson LTCCP
Nelson LTNZ

These graphs do show similar trends between the 2 sets of data, although there are obvious differences for Kapiti Coast District Council and the Nelson City Council.

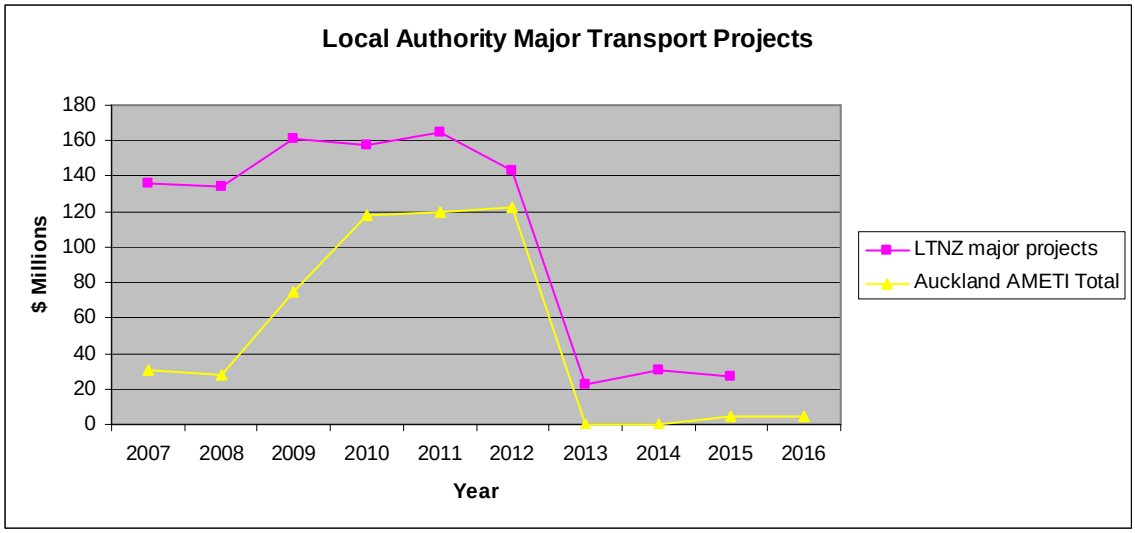
For the Kapiti Coast District Council, the major increase shown in the early years for the LTNZ data is for the Western Link Road. The council have indicated in their LTCCP that at that stage, the external funding is 90% or more. Clearly, Land Transport NZ has not made the same assumption.

For Nelson City Council, the major difference is associated with the project known as the Southern Corridor Upgrade. This is estimated by Nelson City Council to take place between 2008 and 2011 with an estimated cost of $23 million. The graph shows that the Land Transport NZ has not provided for this project.

We have not analysed some of the other differences in the Rotorua District Council and the Dunedin City Council graphs, although some may be attributable to the timing of specific projects.

8.5 Local Authority Major Transport Projects

Land Transport NZ has also undertaken an analysis of the local authority major transport projects in their LTCCPs. These are shown in the following graph.



The line entitled "LTNZ Major Projects" includes the projects across New Zealand and it is interesting to note that the second line dominates the data – this is the Auckland Manukau Eastern Transport Initiative (AMETI).

The major projects up to 2010 include the Penlink Project (Rodney District Council), the East Taupo Arterial (Taupo District Council) and the Western Link Road (Kapiti Coast District Council). In discussing these issues with Land Transport NZ, they are concerned of the significant sums of money shown in the forward part of the programme and believe that inevitably, these works will need to be carried forward to the later part of the 10 years.

Also, Land Transport NZ advise that the Manukau City Council have not included their share of the AMETI Project in their LTCCP.

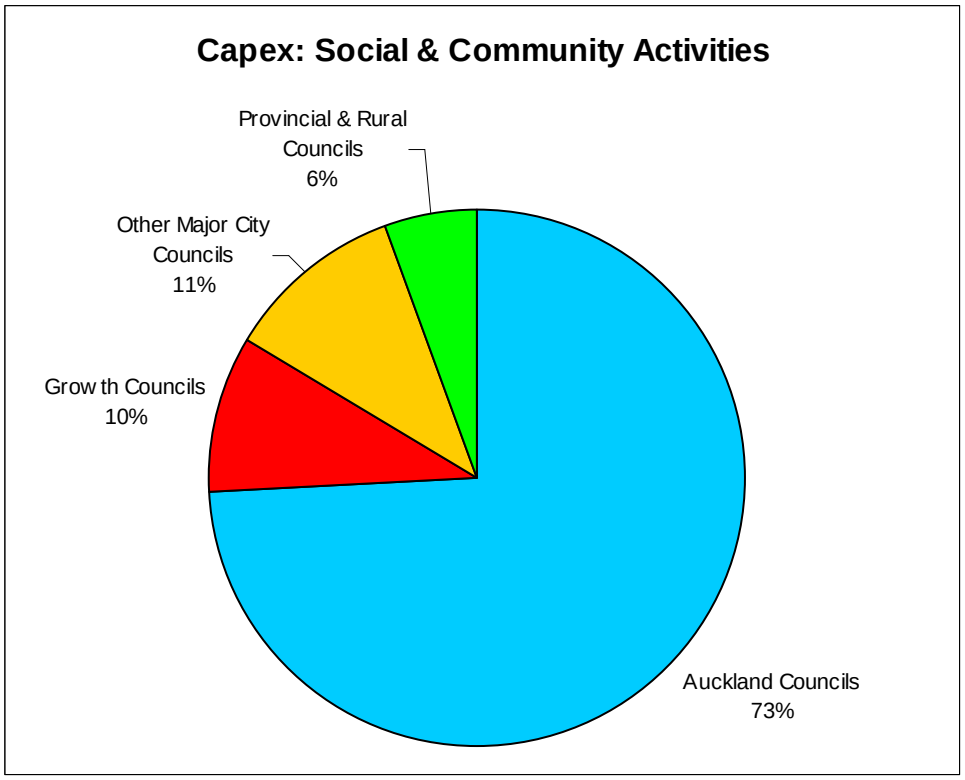
To highlight this point, Land Transport NZ has provided us with information on transport projects deferred from 2006 to 2007. This includes funding that was deferred from 2007 to 2008, or was deferred to subsequent years, or were rescinded funds. This is a total of $397 million and 77% of this relates to defer projects by Manukau City Council and Auckland City Council. This creates significant budget reliability issues for Land Transport NZ.

9. Social and Community Activities

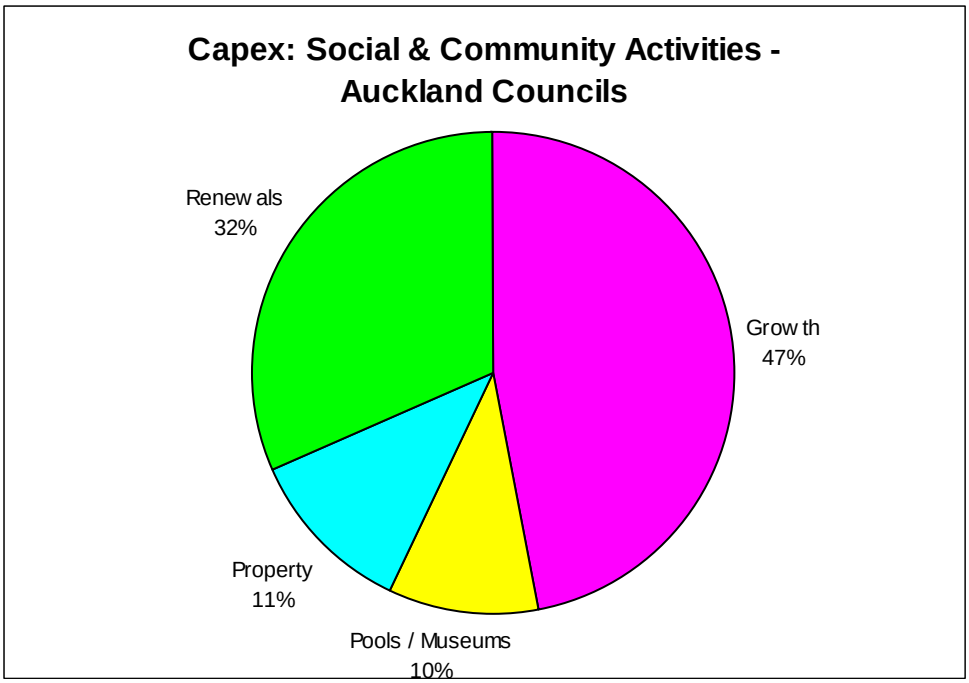
As explained in the Background Section, community activities make up 18% of total capital expenditure for all 85 councils.

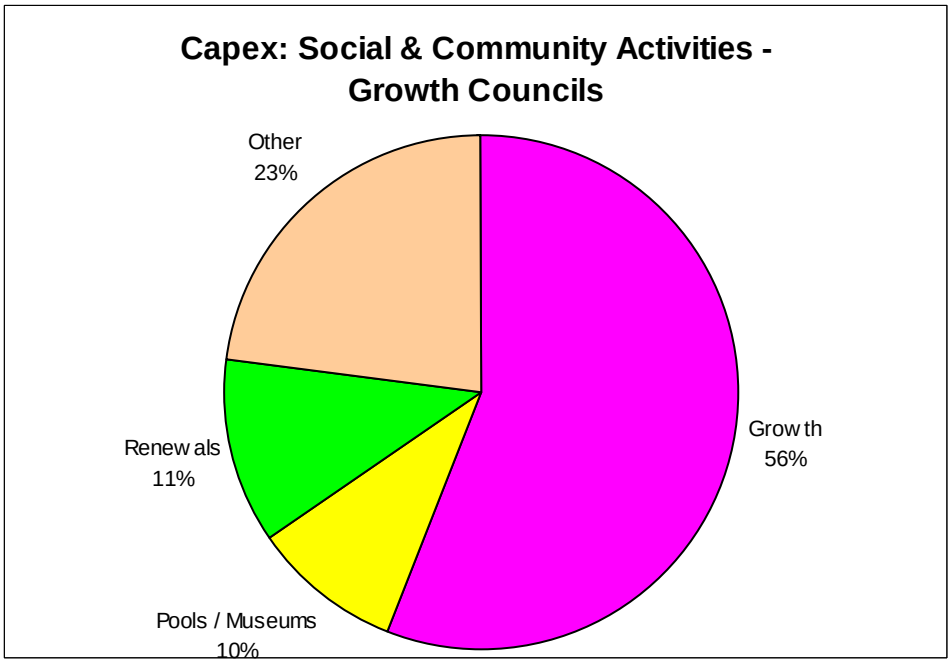
For our 23 focus councils (representing 68% of total expenditure of all councils), the proportion of capex cost on community activities is 14% of the total capex costs of these councils. This is a similar proportion of all councils.

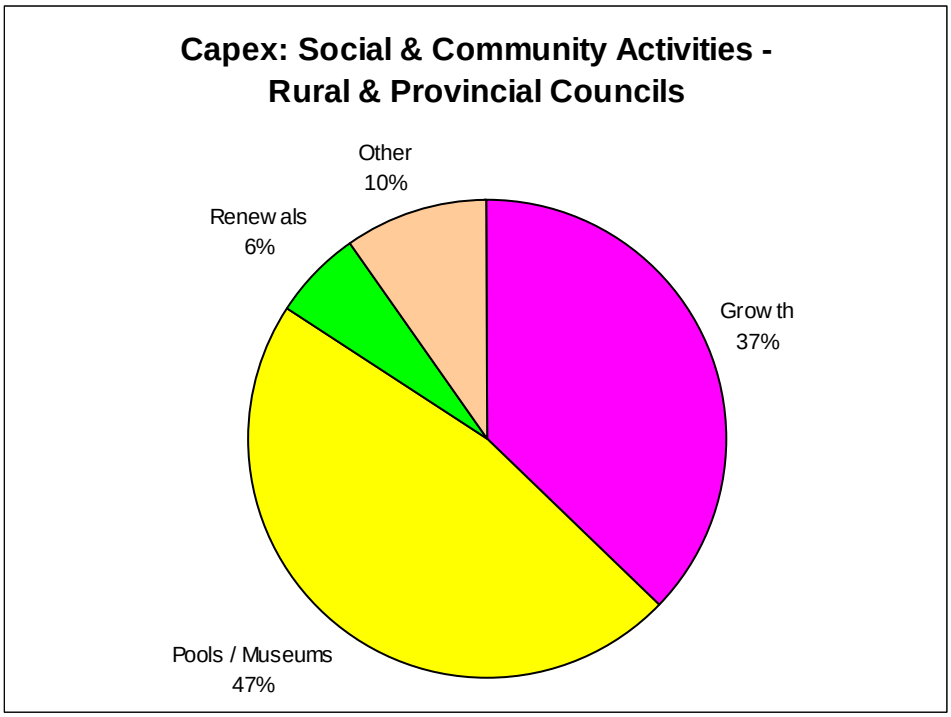
However, of this 14%, most of it (75% of the 14%) is in the Auckland councils and the proportions are shown as follows:



The drivers of this social/community capex differ with the type of council. As social/community capex costs are relatively small, there is only a moderate amount of data to draw on from the 23 councils. However, the drivers are:







Examples of major costs in this area are the purchase of land by the Auckland Regional Council for new parks ($42 million in 2008, 2011 and 2014). Auckland City will spend $300 million over the next 10 years developing the waterfront, and Manukau City propose to spend $166 million on the development of parks, and $100 million on property purchases.

For the growth councils, capex examples include Queenstown Lakes District Council on the Wakatipu Aquatic Centre at Frankton ($14 million) and purchases of land for reserves at Wakatipu and Wanaka. In Tauranga, major projects include purchase of land for reserves ($55 million).

For the Provincial and Rural Councils, examples include Thames Coromandel District spending $21 million on land purchases in Mercury Bay, and Nelson City is proposing a Performing Arts Centre ($30 million excluding contributions from others).

The very high costs for these councils of property purchases create significant uncertainty in their LTCCP – given the ongoing increases in property values – particularly in those areas with a high population growth.

10. Infrastructure Industry Issues

10.1 Infrastructure Deficit

There have been many comments made in recent years on New Zealand facing an infrastructure deficit and the implications for local government.

We note that the Second Report suggests that the case studies highlight a backlog of deferred maintenance and renewals in some local authorities, especially with regard to underground infrastructure. It notes that these appear to be largely a legacy of previous governance decisions and a consequence of lack of robust asset management planning. It is interesting to note in the case studies of the Second Report, that the two of the four case studies of councils, did suggest that the deferred maintenance was minimal, and hence not an issue.

We also note from the submission by Ingenium to the Inquiry that under-investment has resulted in deteriorated infrastructure to a point where major disruptions are starting to occur, and will continue to occur with increased regularity unless investment is made.

The Submission from Local Government NZ and the Society of Local Government Management also discusses the infrastructural deficit. Some of the points made in this Submission:

- There is a bulge in capital expenditure that will have an ongoing operational bow-wave.
- Many of New Zealand's local roads and associated infrastructure, especially in rural areas were built in the period 1945 to 1970, and bridges and pavements in particular are nearing the end of their economic life.
- The effects of past under-investment in transport (including passenger transport and the three waters), particular during the 1980s and early to mid-1990s.

There is some confusion about this issue. First of all, we need to consider some definitions. Maintenance of an asset is about maintaining the asset at an existing level of service and renewing an asset is about extending the life of an asset at its existing level of service. Capital works (or improvements) is about raising the level of service and extending the life of an existing asset.

When backlog is discussed, these concepts are often confused. There is very little evidence to suggest that councils are not maintaining their assets at their current level of service, or not extending the lives of those assets (renewals).

There is evidence to the contrary in the roading industry. Land Transport NZ runs a series of national performance indicators (surface condition, smooth travel exposure and pavement integrity), and these show that the condition of urban and rural roads has gradually improved over the last decade.

Backlog is also often used to describe capital expenditure that is deferred and accordingly the level of service deteriorates. There is plenty of evidence to suggest

that this type of backlog has occurred in the transport sector for the period of 1990 through to 2003. Transport projects required a benefit cost of 4 to 1 – and it is clear under this arrangement that projects were only funded when the benefits far exceeded the costs and accordingly a backlog of capital works accumulated.

This is evidenced by well-documented increasing congestion in Auckland and Wellington in particular.

Backlog on capital works for water and wastewater is not as clear. For major wastewater treatment plants, there are numerous examples where existing resource consents for discharges have had to be extended as councils have taken time to commit significant capital funds.

In many respects, this so called "backlog" of capital works are, in effect, public policy rationing decisions that occur in all public funding decision making.

10.2 What are the Mechanisms to Address Infrastructure Deficits?

While there is little evidence to suggest there are significant maintenance and renewal backlogs, looking forward it is useful to understand the current mechanisms used to address "deficits".

It is important to recognise that amendments to the Local Government Act in the 1990s made significant steps to improve financial reporting, specifically introduced to report the value of assets and to identify potential under-investment. These changes required regular valuations of infrastructural assets and the calculation of depreciation (based on an asset lives and consumption of economic benefits), and reporting of these in local authorities financial statements. Parallel with this was the widespread adoption by councils of asset management planning which in simple terms, required councils to identify their assets, their condition, their future maintenance, renewal and capital requirements, and the corresponding financial requirements. Associated with this was the need to determine a level of service that the assets needed to deliver.

While there has been considerable criticism of the use of these mechanisms by the Office of the Auditor General, overall there has been a general improvement of this sector's capabilities and in the reliability of the information in financial statements and LTCCPs in the last decade.

The important point here is that while there may be some concerns about "infrastructure deficits", the current framework in the Local Government Act 2002 provides an adequate reporting mechanism to provide information to elected members and communities to enable their stewardship role to be performed.

With regard to depreciation, we note in another report to the Inquiry (Project 301), that depreciation expenses as a proportion of total operating expenditure has increased from 13.5 percent in the year ending December 1993, to 21 percent in the year ending December 2006. As such, depreciation expense has been a major driver of the overall increase in total operating expenditure. While depreciation is very important for financial reporting purposes, it is not always necessary to increase rates to fund depreciation.

Section 100 (2) of the Local Government Act 2002 provides for councils to have a funding deficit provided it is financially prudent to do so. If a council undertakes a major capital works item (e.g., a waste water treatment plant), then it does not seem to be in the interests of intergenerational equity that the current generation fund the servicing of the loan for that large capital item, and at the same time, be required to fund depreciation for its ultimate renewal in 40 to 50 years time. In the case of a wastewater treatment plant, it may be prudent to fund the depreciation of those elements that have shorter useful lives, but not the major structures, which will have long useful lives. We believe that there is far more scope for local authorities to use the balanced budget provisions of Section 100 (2), in the interests of intergenerational equity.

10.3 Standards

Questions are sometimes raised about standards being set too high, whether some local authorities are "gold plating" and whether some expenditure is in fact needed. It is noted that in the Ministerial Advisory Group Report on Roading Costs, the Group were advised by local authorities that there is a tendency towards overly conservative designs. It was reported that Transit NZ sourced standards often became defacto national standards that can be inappropriate at the local level. Temporary traffic management standards were sited as one example.

It is interesting to note that this issue was raised by local authorities and this highlights that local authorities scrutinise standards more than their central government colleagues. Temporary traffic management standards were a prime example where a local government revision has now been developed. Staff from Land Transport NZ have also commented to the authors of this report that, in their view, local government expenditure is subject to greater internal scutiny than that of central government. Local authorities funding half of transport funding results in a very strong local accountability for both local funding and central government funding.

In the water and wastewater industry – levels of service are driven by resource consents for discharges for example (regionally set standards) and drinking water standards (nationally set).

Again, it is useful to consider the mechanisms used to ensure that "gold plating" does not occur. With the high level of accountability of local authorities to their communities, and local government officials to their elected members, the accountability mechanisms of local government are substantial – both in terms of political accountability and managerial accountability. The Local Government Act 2002 considerably strengthened these accountability mechanisms, with prescriptive community consultation provisions.

The debate in local government generally revolves around whether a capital work should be undertaken or not, rather than the standard to which it is constructed.

10.4 Buildability

At the time of the Auckland Transport Funding Project in 2003, questions arose on the capacity of the construction industry to undertake a significant increase in the quantum of work in Auckland. A number of steps were identified to systematically address the significant shortfall of skilled labour in the construction industry and the following key issues were jointly agreed:

» There is a need for certainty of demand.

» Procurement and contract arrangements could be improved.

» Recruitment and the profile of the industry needed to be addressed.

» Training and skill initiatives were needed.

It is noted that as recent as March 2007, Roading NZ, in its submission on the Transit NZ Draft Programme and Forecast, advised that the contracting sector has excess capacity at that time both with large national contractors as well as small to medium sized local contractors. They believe this was evidenced by the high number of recent tenderers.

The Institution of Professional Engineers NZ also report significant skill shortages across the board in the engineering profession. There have also been some reports in 2006 by Kaipara Ltd and consultant geologist John O'Brien, that there are shortages in materials (aggregates in particular) with short falls in the Auckland region predicted in future years. John O'Brien was of the view that other major metropolitan areas – Wellington and Christchurch, will have similar problems.

The major buildability constraint in the local government industry in next 10 years is likely to be funding by local authorities.

In terms of a "peaky" procurement period and the capacity of the industry to respond, it needs to be recognised that local government is a relatively small player nationally in capex programmes. For example, in the 2006/07 National Land Transport Programme, 80% of the 10 year capex is for Transit NZ projects, and only 20% is for local government projects. The Ministerial Advisory Group Report on Roading Costs pointed out that Transit NZ needs to be mindful of competition (and capacity) issues in delivering the major infrastructure programmes.

10.5 Infrastructure Risk

Most councils in their "significant forecasting assumptions" have identified issues such as growth assumptions, levels of service, inflation, interest rates, consent requirements, revenue projections, LTNZ financial assistance, and revaluations. Many have identified the degree of risk that these pose for the council.

For infrastructure, the major risks are those relating to natural disasters and the potential that climate change may have on weather patterns. The most probable event for most councils are flood events and the damage incurred to roading in particular.

Councils typically have taken a number of steps to mitigate these risks:

» Civil defence and emergency management plans.

» Membership of the Local Authorities Protection Programme (LAPP).

» Other insurance covers.

» Preparation of Lifeline Plans (coordination of utilities)

» Contingency funds in LTCCPs.

» The ability to amend LTCCPs annually.

Ultimately, those risks are not easy to mitigate and a number have identified that for large scale events and disasters, financial assistance from government may be required – a not unrealistic assumption given events in recent times.

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