

Roading

Roading has the highest expenditure of any of the Council's activities. It currently provides for the maintenance and improvement of 1,651 kilometres of roads in the district. Particular emphasis is placed on safety and improving the surface quality of the roads including the sealing of existing metal roads.

Roading also includes bridges, footpaths, street lighting and the funding of passenger transport services.

Strategic Links

The key activities within this group, and the community and strategic outcomes they contribute to are:

Community Outcomes

Strategic Goals

<input type="checkbox"/> Roading Network Administration Vibrant Local Communities Thriving Economy Sustainable Living Environment	Facilitating Community Development Developing Our Economy Safeguarding Our Environment
<input type="checkbox"/> Corridor Maintenance Vibrant Local Communities Thriving Economy	Facilitating Community Development Developing Our Economy
<input type="checkbox"/> Pavement and Drainage Maintenance Vibrant Local Communities Thriving Economy	Facilitating Community Development Developing Our Economy
<input type="checkbox"/> Carriageway Resurfacing Vibrant Local Communities Thriving Economy	Facilitating Community Development Developing Our Economy
<input type="checkbox"/> Pavement Renewal Vibrant Local Communities Thriving Economy	Facilitating Community Development Developing Our Economy
<input type="checkbox"/> Seal Extension Vibrant Local Communities Thriving Economy	Facilitating Community Development Developing Our Economy
<input type="checkbox"/> Bridges Thriving Economy	Developing Our Economy
<input type="checkbox"/> Safety Improvements and Community Education Vibrant Local Communities Thriving Economy	Facilitating Community Development Developing Our Economy
<input type="checkbox"/> Community Enhancement Works Vibrant Local Communities Thriving Economy Sustainable Living Environment	Facilitating Community Development Developing Our Economy Safeguarding Our Environment
<input type="checkbox"/> Regulatory Thriving Economy	Developing Our Economy
<input type="checkbox"/> Passenger Transport Vibrant Local Communities	Facilitating Community Development

Key Projects

The key operating and capital projects for the group over the life of this plan are:

- 12.5km of seal extension
- 12km of pavement renewal
- painting under the deck of the Tainui Bridge
- 100km of carriageway resurfacing
- urban upgrades including seal extension in Point St, Raglan, and Eccles Ave, Te Kauwhata.

Negative Effects

Some negative impacts may arise from the implementation of the roading programme.

- Incorrect use of chemical weed spray can harm the environment. This is mitigated through the control of chemical use by using current industry best practice and appropriately qualified contractors. Members of the public who object to the use of chemical sprays can apply to be included in the register of 'no spray' zones.
- Improvements to the roading network can encourage drivers to travel faster due to improved road alignment and increased sight distance. This is mitigated through design to provide consistent speed environments and through continuing driver education and enforcement.
- Road construction can harm the environment particularly during earthworks. This is mitigated through using best industry practice and the control and management of silt and runoff during the works.

The Waikato District Transport Network

The transport network in the Waikato District is dominated by road transport as the district is predominately rural. There are significant stretches of State Highway passing through the district such that the highways form an integral part of the

Key Assets

The key community assets for this activity group include:

Length of Roads	km
Sealed roads - Rural	1,033
Unsealed roads - Rural	495
Sealed roads - Urban	119
Unsealed roads - Urban	3
Total	1,650
No of Bridges and Culverts	No
Bridge structures	137
Large culverts (>2.1m diameter)	280
Stock underpasses	42
Length of Footpaths	km
Concrete	103.9
Sealed	4.3
Metal	2.3
Length of Kerb and Channel	206
Streetlights	No
	2007

roading network, providing connectivity between the regions and major cities. State Highway One almost bisects the district from north to south hence the rapid development of the Auckland to Cambridge expressway is important. The "interim" State Highways: 39 and 1B, continue to grow with more and more traffic using them. Highways 26 and 23 provide important links between Hamilton City and Morrinsville and Raglan respectively.

The North Island Main Trunk railway line essentially follows State Highway One and provides opportunity for alternatives to road transport. The Rail link to the ports of Tauranga and Auckland are important for bulk freight movement and will be utilised by major companies such as Genesis in the next few years. The use of rail for commuters between Hamilton and Auckland has been tried in the past but continues to hold its potential.

Council supports and works with Environment Waikato to provide bus services between the major towns of the district and Hamilton City Services run between Hamilton City and Raglan, Huntly and Ngaruawahia. Council will be actively exploring ways in which services can be expanded to assist those living in smaller villages within the district.

While there is little congestion on the roads between the towns and their destinations the motivation to use alternatives to road transport, such as public transport or walking and cycling is weak. However Council is actively encouraging these alternatives by building up and maintaining facilities for them. Connectivity between the various forms of transport is key to ensuring that the transport network is fully integrated. Leisure, as opposed to commuter, walking and cycling is more prevalent in the district and this is noted and taken into consideration when designing facilities.

The Waikato District also has one of the highest road crash records in New Zealand and works closely with Police, the Land Transport Safety Authority and our Road Safety Co-ordinator to develop education and enforcement initiatives to address this.

Council's relationships with the Police, the Land Transport Safety Authority, Transit New Zealand, Toll, Environment Waikato, and the neighbouring Territorial Authorities (Hamilton City Council, Waipa, Matamata Piako, Otorohanga and Waitomo District Councils) form some of our more important strategic alliances.

How we know we are on track

Service level

- **Land Transport Programme**
To develop and manage a robust Land Transport Management Plan, which meets the reasonable needs of the community, protects the roading asset and qualifies for funding assistance from the Government.

- **Road Safety Strategy**
To develop and implement a road safety strategy and safety management systems by 1 July 2004.

- **Pavement Management System**
To utilise the pavement management system to ensure that the National Land Transport Programme is addressing asset management issues within the network.

- **Professional Engineering Business Unit**
The Unit completes the design and supervision of named projects and schedules the year's works so that projects are constructed at suitable times of the year and all projects are completed by the end of the financial year.

Checking progress

To review the Council's land transport management programme annually, and at the same time as the National Land Transport Programme.

To consult widely on the plan with the community, other road controlling authorities, and all other interested parties.

To maximise the amount of subsidy assistance available by prudent management and knowledge of legislative requirements.

To ensure that external audits of the programme and systems are completed annually by Audit New Zealand and Transfund New Zealand, and that any deficiencies are addressed promptly.

To monitor and report progress on the objectives of the road safety strategy annually.

To annually audit the safety management system, and ensure that any deficiencies during the audit are attended to promptly or scheduled for improvement within the system.

That the overall condition of the roading asset remains static or improves. This is reported on every two years following a condition rating survey and analysis of the model outputs.

To ensure that all projects are completed within agreed time frames and budgets.

Roading Network Administration

This activity helps to achieve the community outcomes of Vibrant Local Communities and Thriving Economy. It includes the administration of the roading area, and Council's in-house roading design team.

Council's Roading group is responsible for the prudent asset management and operation of the road network.

Where we want to go

Land Transport Programme

Under the Land Transport Management Act, Council is required to produce a land transport programme that is not inconsistent with the New Zealand Transport Strategy. The Government's vision for transport is that "By 2010 New Zealand will have an affordable, integrated, safe, responsive, and sustainable transport system." In achieving this vision Council's land transport programme must contribute to the purposes of this Act and to the following:

- assisting economic development
- assisting safety and personal security
- improving access and mobility
- protecting and promoting public health
- ensuring environment sustainability.

These objectives are aligned with the community outcomes and Council's strategic goals.

The roading activities included in this Long-Term Council Community Plan make up Council's land transport programme.

Road Safety Strategy

Council will implement a safety management system by 1 July 2004 to ensure that all decisions about maintenance, management and construction are made within the context of improving safety in the district, and contribute to the goals and objectives of the New Zealand Road Safety Strategy 2010. Council

has a Road Safety Strategy that, in conjunction with the safety management system, describes how Council will further the desired outcomes for Land Transport Safety, including how it will build and manage relationships with other parties including police, local Maori, organisations, community groups and other interested groups. This strategy identifies the safety issues facing the district and the actions that will be undertaken to address them.

Pavement Management System

Council also runs a pavement management system to ensure that roads are regularly inspected and their condition is recorded. This data is used to model the roading network's performance over time so that forward programming is robust and able to be projected with reasonable certainty over a ten-year period. The outputs of the model are verified with field checks as Council continues to calibrate and develop the system. Modelling enables varying scenarios to be considered in terms of service levels and the amount of funds required to manage the network efficiently and effectively.

General Administration

Council staff are appropriately skilled and resourced to ensure all works are completed in a thoroughly professional and responsible way following current industry best practice and complying with relevant legislation. The roading group has the appropriate systems and processes in place to achieve these goals.

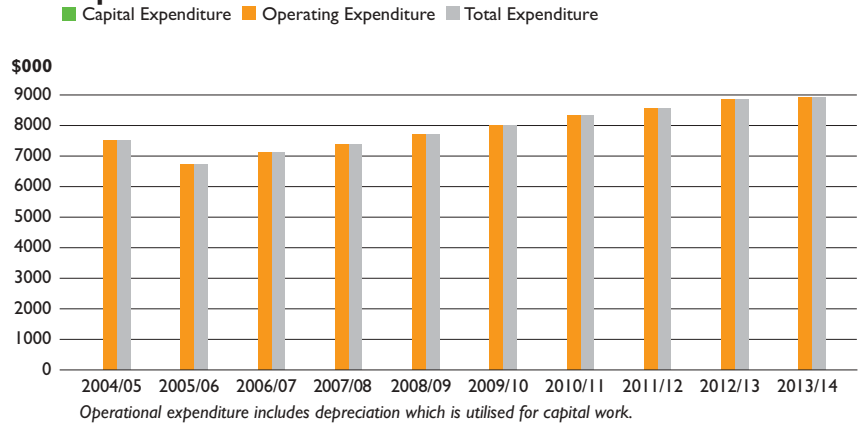
Professional Engineering Business Unit

The Professional Engineering Business Unit is an in-house consultancy service, which carries out the majority of the project scoping, design and supervision of major roading projects. External consultants are engaged for specialist activities and to supplement resources if necessary.

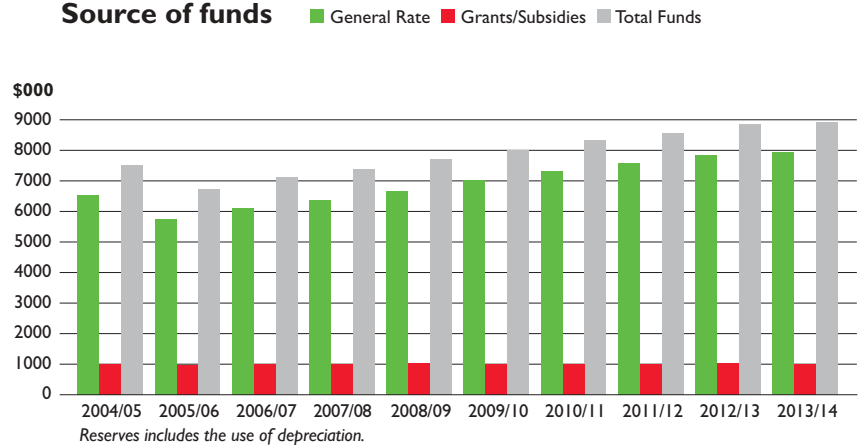
Under section 28 of the Transit New Zealand Amendment Act 1995, Council must comply with the special provisions relating to in-house professional services. These Conditions include 'due consideration' of cost effectiveness, accountability, contestability of service and availability of resources.

What we plan to spend

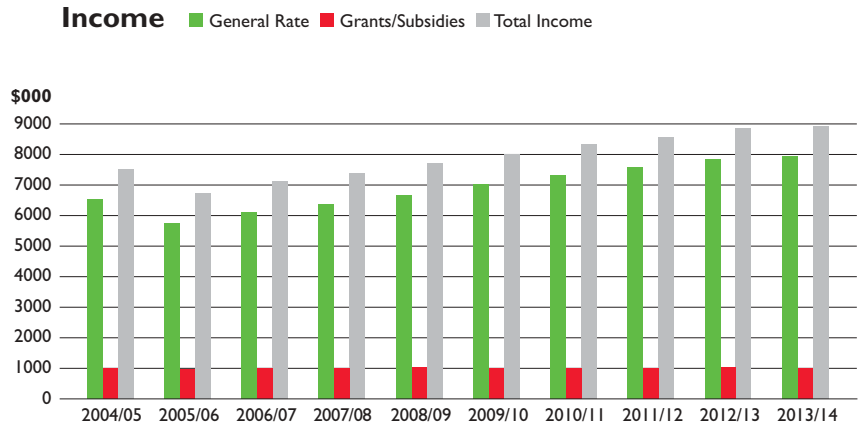
Expenditure



Source of funds

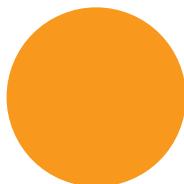


Income



Funding split

Public Funding (orange) Private Funding (green)



How we know we are on track

We aim to provide the following service levels consistently over the next ten years. Funding increases will be required as the network grows or when the community requires a change in the service level either to increase or decrease an activity.

Service level

□ Traffic signs, road marking, and guardrails

That installation complies with current industry practice and is appropriate to the roading environment.

□ Litter collection and street bin emptying

That the central business areas of Huntly, Ngaruawahia and Raglan are cleared of litter daily, and bins are emptied as required to prevent overflow and nuisance.

□ Removal of road debris and rural roadside litter and abandoned cars

That high traffic rural roads are regularly patrolled and cleared of litter.

That abandoned cars are removed promptly following notification.

□ Removal of graffiti

That graffiti and vandalism is attended to promptly to discourage repeat offending.

□ Kerb and channel sweeping and catchpit emptying

That kerbs are swept three times per year. That catchpit sumps are cleared annually or as required.

□ Vegetation control

That high traffic rural roads are mown to maintain an average grass height of not more than 300mm.

That other rural roadsides are mown twice per year.

That rural roadsides are sprayed to control growth in roadside drains and ensure signs are not obscured.

That urban roads are sprayed or trimmed four times per year to keep footpath and kerbs tidy.

That overhanging vegetation does not obstruct traffic on roads or pedestrians on footpaths.

□ Rural and urban street lighting

To ensure lighting is maintained in good working order.

□ Railway level crossings and warning devices

To ensure lighting is maintained in good working order, and outages are attended to promptly after receiving advice of the problem.

NOTE: this work is carried out by Tranzrail.

□ General Response

That the number of requests for service are monitored and attended to.

Checking progress

To ensure that regular audits by peers, LTSA and Transfund identify no major deficiencies, and the incidence and severity of crashes are maintained at current levels or reduced.

To regularly inspect streets to ensure contractor performance is satisfactory, and to ensure that non compliance is attended to within 24 hours of notification.

To ensure that other litter is attended to within 24 hours following advice of the problem.

To ensure that 95% of complaints about abandoned cars are responded to within five working days of notification.

To regularly inspect streets to ensure contractors performance is maintained. To ensure that other litter is attended to within 24 hours following advice of the problem.

To ensure that regular inspections confirm that the road drainage system operates effectively and roadside flooding in kerbed areas is reduced. That non compliance is attended to within three days of notification.

The contractor's work is randomly inspected to ensure that performance is maintained, and non complying work is attended to within three days of notification.

Outages are referred to the contractor within 24 hours of receiving advice of the problem.

The number of complaints received is monitored and all are passed on to Tranzrail New Zealand.

To ensure that complaints and requests for service are monitored and recorded. That all enquiries are acknowledged within 24 hours and investigated, and all valid issues are attended to within 48 hours (or the above timeframes) by either addressing the problem or scheduling works.

What we plan to do

Projects	2004/05	2005/06	2006/07
	\$	\$	\$
Traffic services	689,000	745,000	700,000
Street cleaning, litter bins, weed control, graffiti removal	374,500	391,000	391,000
Kerb sweeping and catchpit cleaning (subs)	105,000	107,500	110,000
Street lighting (subs)	201,200	222,700	231,500
Amenity and corridor maintenance	530,000	544,000	544,000
Level crossings and warning devices	32,000	30,000	30,000

Corridor Maintenance

This activity contributes to the achievement of the Vibrant Local Communities and Viable Economy community outcomes. In accordance with the Land Transport Management Act this activity also contributes to economic development, safety and personal security and ensuring environmental sustainability.

The road network includes not only the paved road and footpath surfaces, but also the land between the property boundaries that make up the road reserve, which is referred to as the roading corridor.

Corridor maintenance includes all the routine activities that ensure the efficient and effective operation of the network and maintain a tidy appearance. Corridor maintenance activities include:

- traffic signs, road marking, and guardrail maintenance
- litter collection and street bin emptying
- removal of road debris, rural roadside litter and abandoned cars
- removal of graffiti on roading structures and other council property
- kerb and channel sweeping and catchpit emptying
- vegetation control in both urban and rural areas – mowing, weed spraying, removal or trimming of overhanging vegetation, and kerb trimming in some urban areas
- rural and urban lighting maintenance
- railway level crossings and warning devices.

Council also recognises the public's expectations for a district that provides a certain lifestyle, and of which we can be proud.

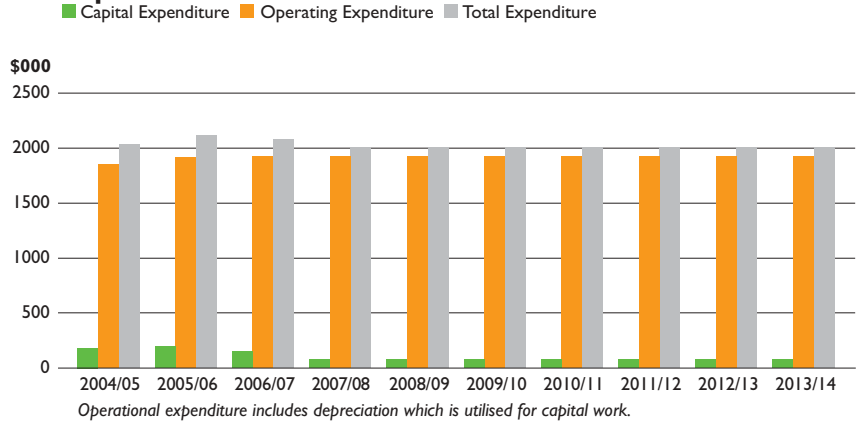
Where we want to go

Corridor maintenance serves three purposes - it assists road safety, improves the efficiency of traffic flow and drainage systems, and can create a tidy and consistent appearance throughout the district. Our aim is to provide an appropriate level of service that achieves these goals for an affordable cost. Repetitive routine work can be more cost effective than a reactive approach for certain activities, specifically mowing, weed control, street sweeping and litter collection.

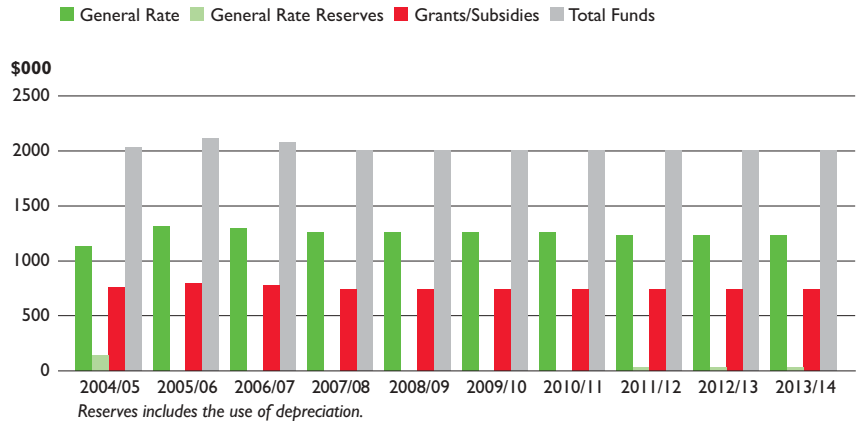
- A consistent road environment improves safety, for example when traffic signs and road marking are positioned appropriately they inform the driver of the road ahead, while vegetation control provides clear sight distance for the motorist and ensures signs are not obstructed.
- Sweeping of kerb and channelling and the cleaning of catchpits ensures that road drainage systems operate efficiently and reduces risk of roadside flooding, mainly in urban areas.
- Routine vegetation control and litter collection reduce fire and vermin risk, and nuisance from offensive litter and spills.
- Rural and urban lighting improves road safety and can assist personal and property security in urban areas.
- Railway crossings throughout the district are controlled with signs or lights and alarm bells, which must be maintained for safety reasons.

What we plan to spend

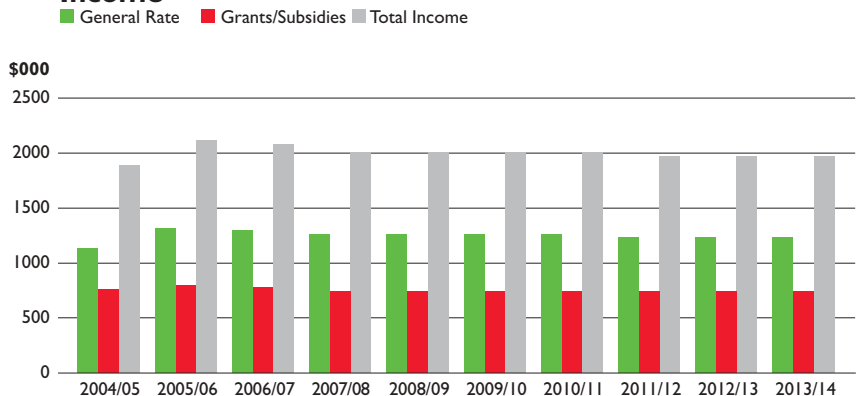
Expenditure



Source of funds

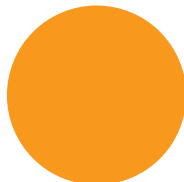


Income



Funding split

Public Funding (orange) Private Funding (green)



How we know we are on track

Council maintains its network in accordance with the performance measures monitored nationally by Transfund New Zealand.

Transfund's 2003/04 performance measures and targets for Council maintenance include:

Service level

- To maintain smooth travelling surface - the percentage of vehicle kilometres travelled on sealed Council roads classified as smooth.

Smoothness is defined in terms of NAASRA counts, which are applied to different classes of roads. Those carrying high volumes of traffic require smoother values than roads carrying little traffic.

- To minimise the number of road faults present – This is measured by the surface integrity index indicator (the lower the index value the healthier the roading network).
- To attend promptly to emergency works – contractors will respond to all emergency situations following notification.
- To undertake routine maintenance as required to maintain public satisfaction.
- Contractor performance - A random portion of the claimed works is inspected by Council staff to ensure completion and compliance with specifications.
- Maintenance expenditure - the percentage variation between planned and actual maintenance expenditure.

Checking progress

Council's roads will be measured using the Roads Assessment and Maintenance Management system (RAMM) every two years.

To ensure that a surface integrity index of less than 20% is achieved. This is measured every two years and maintained.

To ensure that a contractor is on-site attending to a verified emergency situation within four hours of notification.

To ensure that complaints are recorded and monitored. That all complaints are acknowledged within 24 hours of receiving them and are attended to, or scheduled for future works.

To complete monthly audits and remedy non-compliance within one month of notification.

To ensure that end of year expenditure falls in the range between 3% below budget to 1% above budget.

What we plan to do

Projects	2004/05	2005/06	2006/07
	\$	\$	\$
Pavement grading	320,000		
Pavement wearing course	325,000		
Pavement maintenance metal	410,000		
Pre-reseal maintenance	200,000		
Structural pavement repairs	775,000		
Drain and channel maintenance	285,000		
Repairs to small culverts	60,000		
Unlisted maintenance works	1,000,000		
Unlisted drainage works	55,000		
Park Drive, Raglan - stormwater works	10,000		
Earles Place, Raglan - stormwater works	20,000		
Long Street, Raglan - stormwater works	20,000		
Point Street, Raglan - stormwater works	25,000		
Flood improvement works	70,000		
District-wide pavement and drainage maintenance		3,600,000	3,700,000

Pavement and Drainage Maintenance

This activity helps to achieve the community outcomes of Vibrant Local Communities and Thriving Economy. This activity also contributes to the objectives of the New Zealand Land Transport Strategy by contributing to economic development, safety and personal security, access and mobility and public health.

Council maintains its road pavements, both sealed and unsealed, in good condition so as to maximise the useful life of the roads and provide a smooth and safe travelling surface. Flooding on the road can present a hazard to the motorist, as well as cause damage to the road itself. As such, well maintained road drainage is a key element in protecting the roading network.

Important pavement and drainage maintenance activities include:

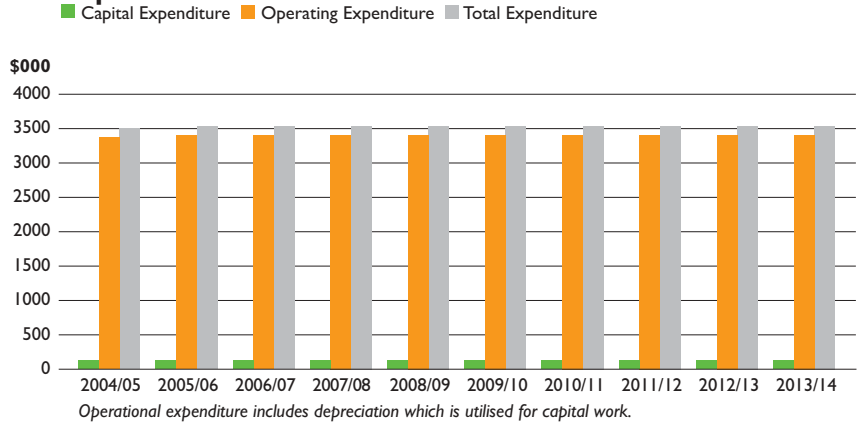
- grading of unsealed roads
- addition of metal to unsealed roads
- repair of pavement faults including potholes and digouts
- clearing of roadside shoulders and drains
- repairs to, and replacement of, culverts less than two metres in diameter
- emergency works – attending to storm damage, flooding, slips and other hazards such as fallen trees.

Where we want to go

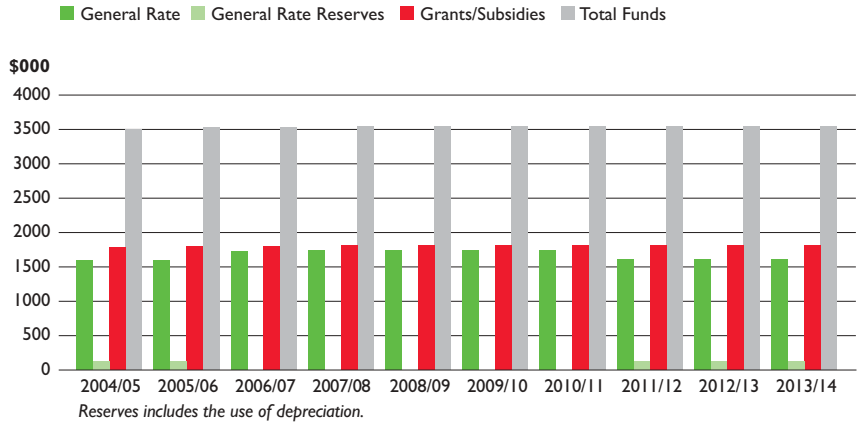
Council aims to keep the road surface in a safe and smooth condition at all times. Over the long-term Council aims to maintain its road pavements prudently keeping them in good condition and extending their useful life as long as possible.

What we plan to spend

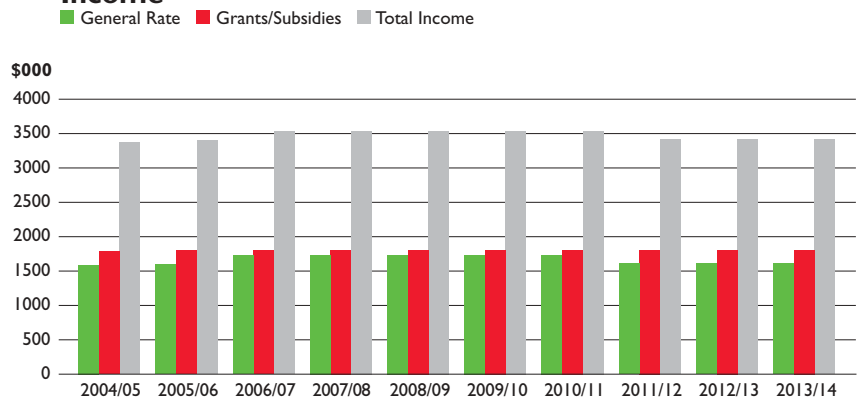
Expenditure



Source of funds

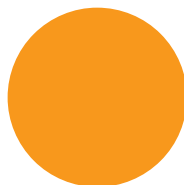


Income



Funding split

Public Funding (orange) Private Funding (green)



How we know we are on track

A condition rating survey of all roads is undertaken every second year and the data from this is used in the pavement management system. The pavement management system is then used to indicate the overall length of resurfacing that should be done each year. The current models indicate that Council will need to increase its resurfacing length over the next three to four years to address a situation where a large number of reseals are coming due at the same time.

Specific reseal sites are determined through the pavement management system and validated by field inspections.

Service level

- To maintain the resurfacing programme in accordance with condition rating surveys and pavement management system.

Checking progress

To resurface 100km of roads in the financial year.

What we plan to do

Projects	2004/05	2005/06	2006/07
	\$	\$	\$
Asphalt resurfacing length	1km	1km	1km
Asphalt	100,000	100,000	100,000
Resurfacing length – chip seal	100km	120km	130km
Chip seal	1,650,000	2,000,000	2,200,000

Carriageway Resurfacing

This activity helps to achieve the community outcomes of Vibrant Local Communities and Thriving Economy. This activity also contributes to the objectives of the New Zealand Land Transport Strategy by contributing to economic development.

Roads are a major component of Council's transportation system, and represent a significant investment. The sealed surface of a road waterproofs the underlying pavement and provides a skid resistant surface for vehicles. Good management of the road surface will programme resealing to prevent premature failure while ensuring the surface is not slippery.

Council has approximately 1153km of sealed roads. By far the majority of roads are surfaced in chip seal. Some urban areas and intersections are surfaced in asphalt.

Where we want to go

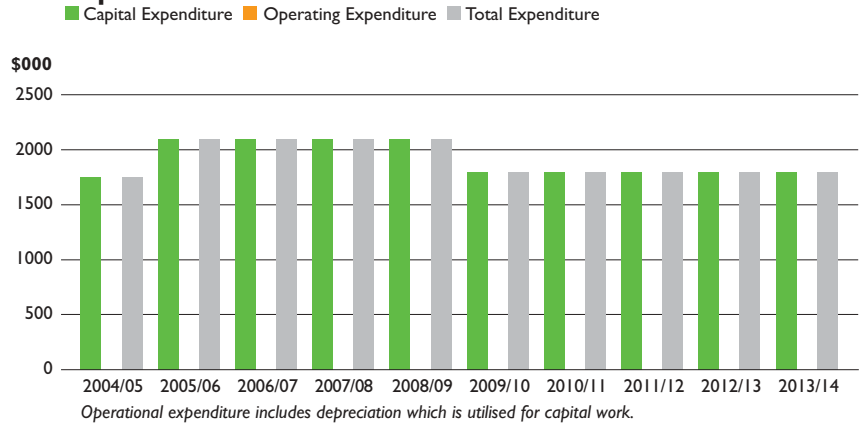
Resurfacing addresses several issues:

- it provides texture on the road surface to maintain skid resistance, which helps with road safety
- it protects the road pavement by providing a waterproof layer so that water does not enter the pavement layers. This, in turn, helps reduce problems that may arise such as potholes and 'soft areas' that need digging out and rebuilding.

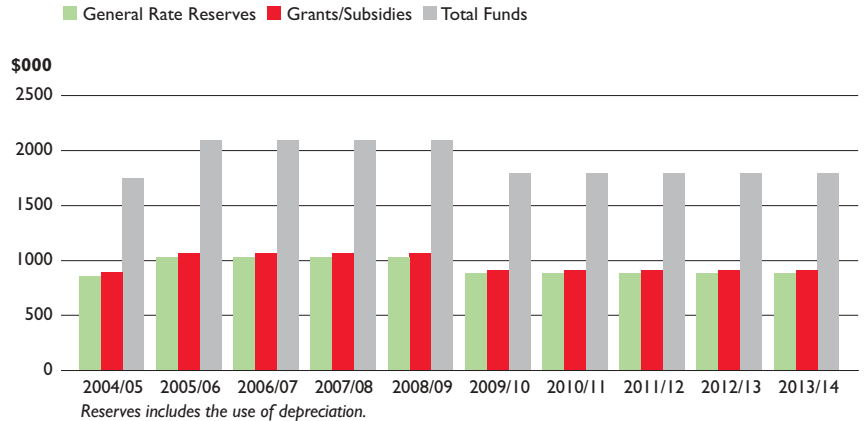
We plan to resurface roads just as they need it, i.e. before pavements deteriorate and resistance is lost.

What we plan to spend

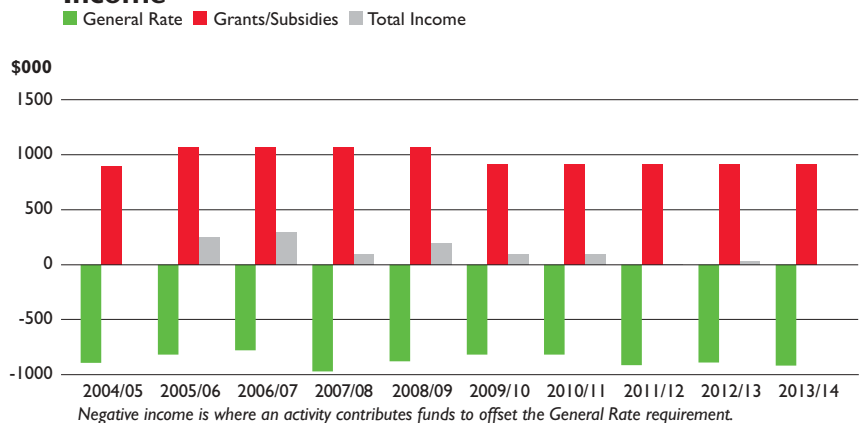
Expenditure



Source of funds

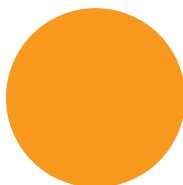


Income



Funding split

Public Funding (orange) Private Funding (green)



How we know we are on track

Pavement renewal projects are designed to meet or exceed current industry standards for the measured traffic capacity of the road, including anticipated growth over the expected life of the new pavement.

Projects are also economically analysed for the following reasons:

- to ascertain if a pavement renewal project is warranted
- to ensure that upgrades are more cost effective than continued maintenance
- to acquire subsidy from Transit New Zealand.

On average we expect to renew between 12-16km of sealed road pavement per annum based on the needs of the asset.

Regular audits and inspections are carried out to monitor the condition of the roading network as a whole and identify sections of pavements requiring renewal.

Pavement renewal projects are subjected to quality and safety audits on both the design and the constructed project to ensure that they the performance standards have been met.

Service level

- To maintain smooth riding surface – new pavements should achieve a smooth roughness measure and contribute to the overall smoothness of the network.

Checking progress

That new pavements obtain a NAASRA count of 75 or less, measured within two years of construction.

To audit a sample of renewal projects prior to construction, and to address any issues identified.

What we plan to do

Projects	2004/05	2005/06	2006/07
	\$	\$	\$
District wide AWPT, include the following sites:	525,000		
- Bain Road AWPT			
- Bankier Road AWPT			
- Gordonton Road AWPT			
- Hetherington Road AWPT			
- Horotiu Road AWPT			
- Okaeria Road AWPT			
- Te Ohaki Road AWPT			
Hautapu Road AWPT	230,000		
Horsham Downs bypass RC	385,000		
Kainui Road AWPT	225,000		
Tahuna Road I AWPT	240,000		
Tahuna Road II AWPT	322,000		
Travers Road AWPT	144,000		
Tregoweth Lane / State Highway One Intersection RC	300,000		
Victoria Road AWPT	210,000		
Advance 2005/06 RC design	60,000		
Riverview Road RC (Wright's bridge) design	50,000		
Te Kowhai Road RC	325,000		
Waverley Road RC	400,000		
District-wide annual length of renewed pavement	12 km	16km	16km
District-wide pavement renewal		2,900,000	2,950,000

Key: AWPT – Area wide pavement treatment RC – Road Reconstruction

Pavement Renewal

This activity helps to achieve the community outcomes of Vibrant Local Communities and Thriving Economy. This activity also contributes to the objectives of the New Zealand Land Transport Strategy by contributing to economic development, safety and personal security, access and mobility and public health.

Council maintains its road pavements and carries out renewal as they near the end of their useful life. Pavements require upgrading for several reasons including:

- they are at the end of their design (useful) life, and have deformed, making the pavements unacceptably rough. It is cheaper to rebuild them than continue expensive maintenance
- the traffic patterns have changed since the pavements were constructed, causing deformation, because they are no longer strong enough or wide enough for the traffic demands
- crashes are occurring due to a fault in the road.

It should be recognised that much of the rural roading network has developed from old trails, some of which started as bridle trails. Therefore, much of the network has not been constructed to any engineering design. This is corrected during roading upgrade projects. This pavement renewal work includes – or is referred to as – area wide pavement treatment (AWPT), pavement smoothing (PS), road reconstruction (RC) and pavement rehabilitation (PR).

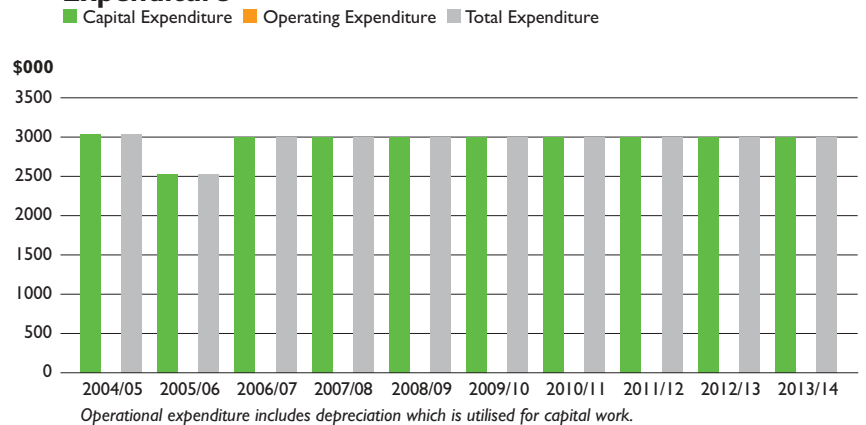
Where we want to go

Over the long-term Council aims to maintain its road pavements prudently by keeping them in good condition and therefore extending their useful life as long as possible.

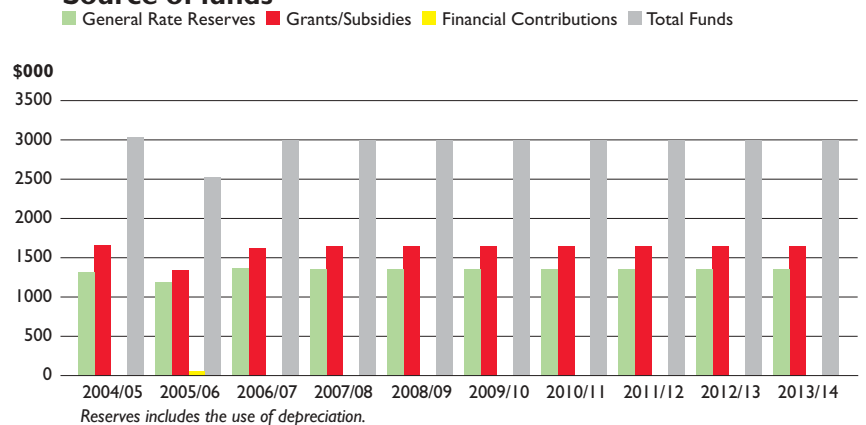
Council uses nationally recognised pavement management systems to assist in long-term planning and to determine the best balance between preventative maintenance and full pavement renewal or strengthening.

What we plan to spend

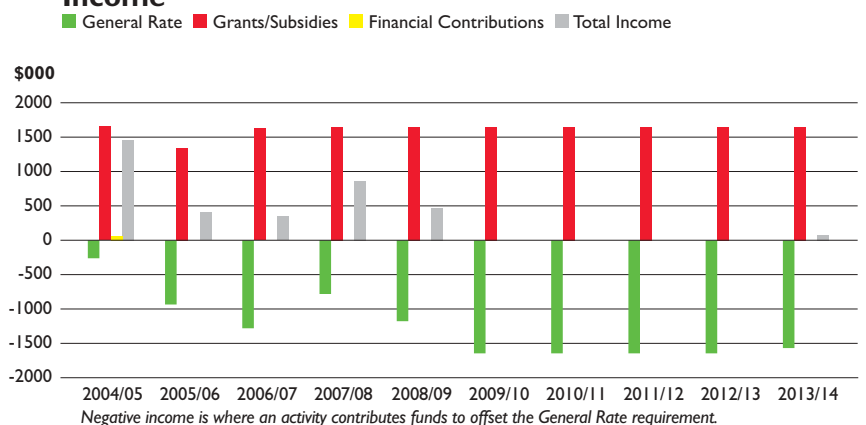
Expenditure



Source of funds

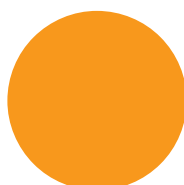


Income



Funding split

Public Funding (orange) Private Funding (green)



How we know we are on track

All seal extension projects upgrade the road and its alignment to current industry standards, based on the amount of traffic and the speed environment. All urban seal extension projects are treated as urban upgrades, bringing the road or street up to an urban standard consistent with the neighbouring development.

Through all our work, and in-line with the national transport strategy, we aim to achieve an affordable, integrated, safe, responsive and sustainable transport system.

Seal extension works are subjected to quality and safety audits on both the design and the constructed project to ensure that the performance standards have been met.

Service level

- To complete the seal extension programme on time and within budget.
- To maintain smooth riding surface – seal extension projects pavements should achieve a smooth roughness measure and contribute to the overall smoothness of the network.

Checking progress

- To complete 12-13km of seal extension within agreed budgets.
- To ensure that new pavements obtain a NAASRA count of 75 or less, measured within two years of construction.
- To audit a sample of seal extension projects prior to construction, and to address any issues identified.

What we plan to do

Projects	2004/05	2005/06	2006/07
Length of seal extension - km	12 – 13	12 – 13	13 – 14
Cost of seal extension - \$ million	3.2 – 3.5	3.2 – 3.5	3.5 – 3.8

The following is an alphabetical listing of roads and locations scheduled for seal extension in 2004/05.

Road	Location	Km
Dawson Road	Taupiri	0.45
Elgood Road	Ngaruawahia	1.00
Middle Road	Gordonton	1.20
Newton Road	Raglan	0.05
Ohautira Road	Whaingaroa	1.00
Phillips Road	Raglan	0.05
Shewan Road	Gordonton	1.60
Springhill Road	Meremere	1.60
Stewart Road	Te Kauwhata	0.40
Stokes Road	Taupiri	1.20
Te Papatapu Road	Raglan	0.90
Uapoto Road	Taupiri	1.70
Waiu Road	Waterimu	1.00

Urban Seal Extensions

Earles Place	Raglan	0.13
Point Street	Raglan	0.11

The following is a listing of roads and locations scheduled in 2004/05, for unsealed upgrades or preparation works for future seal extensions.

Road	Location	Km
Churchill Road	Te Kauwhata	1.70
Findlay Road	Maramarua	1.90
Ohautira Road	Whaingaroa	1.20
Okete Road	Te Uku	1.30
Dimmock Road	Maramarua	
Hampton Downs Road	Te Kauwhata	
Maungatawhiri Road	Raglan	
Tikotiko Road	Glen Murray	
Wilton Collieries	Glen Massey	
Tregoweth Lane	Huntly	

The following is an alphabetical listing of roads and locations scheduled for seal extensions in 2005/06 and 2006/07.

Road	Location	Km
Carter Road	Waeranga	0.95
Casey Road	Te Kowhai	0.32
Churchill Road	Te Kauwhata	1.70
Dimmock Road	Maramarua	1.20
Findlay Road	Maramarua	1.90
Hampton Downs Road	Te Kauwhata	1.80
Horahora Road	Rangiriri	1.40
Karakariki Road	Karakariki	1.30
Maungatawhiri Road	Raglan	0.30
Newton Road	Raglan	1.00
Ohautira Road	Whaingaroa	2.30
Okete Road	Te Uku	2.80
Powells Road	Eureka	1.20
Puke Road	Gordonton	0.80
Rayner Road	Huntly	0.65
Ruapuke Road	Ruapuke	0.90
Shaw Road	Eureka	0.50
Te Puroa Road	Ngaruawahia	1.50
Tikotiko Road	Glen Murray	1.00
Valentine Road	Gordonton	1.00
Whaanga Road	Raglan	1.00
Williamson Road	Gordonton	0.60

Urban Seal Extensions

Rayner Road	Huntly	0.60
Edward Ave	Pukemiro	0.10
Joseph Street	Pukemiro	0.07
Miro Road	Glen Afton	0.10

Seal Extension

This activity helps to achieve the community outcomes of Vibrant Local Communities and Thriving Economy. This activity also contributes to the objectives of the New Zealand Land Transport Strategy by contributing to economic development, safety and personal security, access and mobility and environmental sustainability.

The roading network in the Waikato District measures approximately 1650km, of which 498km is currently unsealed. Seal extension is the activity of sealing existing metal roads. Council acknowledges the expectations of those living on unsealed roads and the impact that an unsealed road can have on the local community, its health and consequently its lifestyle.

Where we want to go

As the district grows and develops it is appropriate to extend the sealed roading network. There will be a number of roads that will not be sealed in the long-term. Council's target is to seal 75% of the roading network.

Council currently maintains a rolling ten-year seal extension programme, which identifies the roads that are proposed for sealing and the order in which they will be addressed. This programme is flexible so that Council can react to areas where growth and development are moving at an accelerated rate. The programme is reviewed annually and provides a guide to the public and those people who live on unsealed roads.

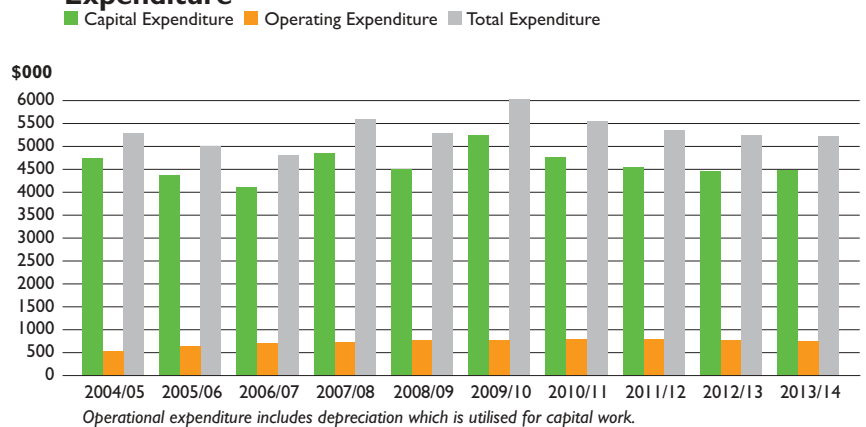
Seal extension projects are prioritised by taking the following into account:

- availability of funding
- traffic volumes and proportion of heavy vehicles
- maintenance costs
- accident history
- potential use – subdivisional growth
- adjacent land use
- enhancement of community development
- preservation of rural community
- other social needs.

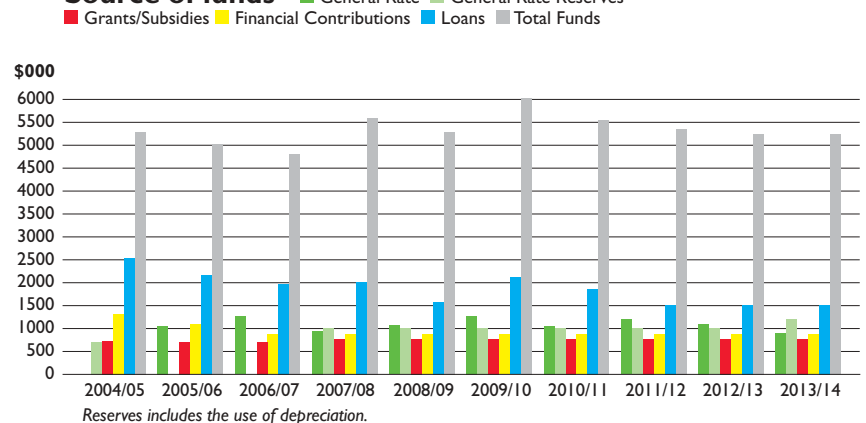
Seal extension projects are designed ahead of construction and preliminary maintenance is often carried out in the year prior to sealing. Some seal extension works qualify for a subsidy and wherever possible this is maximised.

What we plan to spend

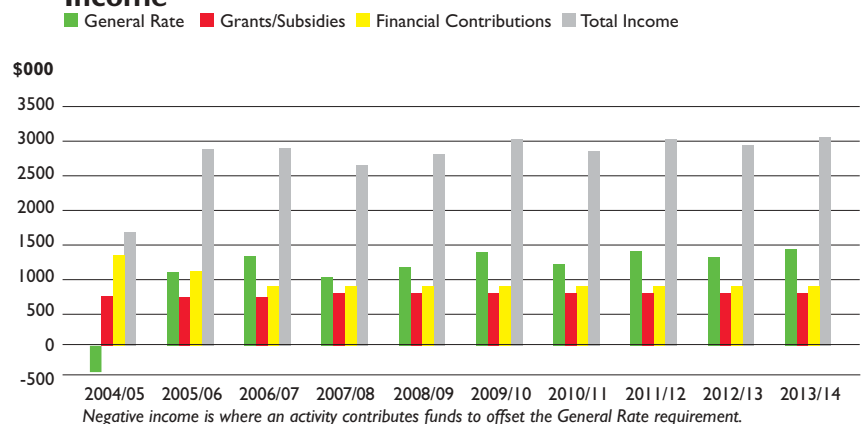
Expenditure



Source of funds



Income



Funding split

