



# Part IV

## funding and finance

**12** *Funding and investment identified to implement  
the City Transport Plan*

**13** *The city transport financial strategy*



# Funding and investment identified to implement the City Transport Plan

## 12.1 Introduction

Without adequate planning and funding for transport systems, the City faces a future of increased congestion, and reduced amenity and air quality. This will have unacceptable social, economic and environmental costs. Yet the new reality of shrinking government budgets means it is increasingly difficult for government investment in infrastructure to keep pace with growth.

Providing a more sustainable transport system for Gold Coast City will reduce the need to provide and maintain endlessly increasing amounts of road space, which is the major use of present transport funding. However, this will require significantly more investment in public transport and non-motorised transport infrastructure, in the medium term, than has been made available in the past.

Realistic financial analysis in which program costs and likely revenues are roughly in balance is an important element for the future success of the City Transport Plan. Ideally, the City Transport Plan would be *financially constrained*. This means capital actions contained in this plan, and the maintenance and preservation of the existing system, would be affordable within existing and projected sources of funds.

However, travel demands will continue to grow faster than revenue, and there will not always be adequate funding to maintain the existing system and add capacity to keep pace with growth.

## 12.2 Regional context for transport funding

There is generally a shortfall of transport funding in South East Queensland. The Integrated Regional Transport Plan identified a potential shortfall over 25 years of \$10 - 12 billion. A “Regional Financial Model” is proposed in Key Action 15.1 of the IRTP to:

- comprehensively analyse current revenue available for transport;
- estimate likely revenue growth;
- predict shortfalls;
- optimise the timing of investments; and
- identify and evaluate potential new revenue sources.

## 12.3 Costs of implementing the City Transport Plan

The costs of projects proposed in the City Transport Plan have been estimated over the 30 year life of the Plan, to enable a comparison between likely available revenue and the needs for ongoing transport investment. At the same time, detailed capital works requirements have only been developed up until 2011. While this is a significant advance on previous planning, it means the 30 year estimates are based on more generalised planning, and in some cases are not project specific.

All costs in this City Transport Plan are quoted in 1998 dollars, to assist comparison.

The analysis of the 4 *Strategy Options* in Chapter 4 of this City Transport Plan has identified the “public transport preferred” *Strategy Option A* as the recommended approach to developing the City’s transport system on a sustainable basis.

To implement *Strategy Option A*, investment totalling \$3.26 billion over 30 years has been identified, as itemised in table 12.1. This includes the full range of costs including capital works, maintenance of the existing system, and the payment of subsidies to cover operating losses of public transport services.

While significant revenue is expected to be available to meet transport needs, a shortfall will occur unless there is a boost in capital works funding. This shortfall has been estimated at around \$895 million over the 30 year life of the plan. A shortfall of this magnitude is not unusual in long term planning for infrastructure and services. What is important is the key areas contributing to the projected deficit are identified and a strategy developed to address the gap, either partially or fully.

The next chapter develops a financial strategy for meeting the investment needs of the City Transport Plan. This includes opportunities for new sources of funding.

In any event, the major investment needs have identified and can be delivered on a priority basis, depending on the quantum of funding that eventually becomes available.

The City may begin to approach full development of its urban perimeters around 2011, under present development trends. This will reduce the need for major capital investment in transport infrastructure. It also means heavy investment should be made in the medium term, prior to 2011, to ensure transport facilities are in place early enough to influence development patterns.

Table 12.1  
Projected revenue and investment needs - 2000/1 to 2029/30

Item	Projected Revenue (\$million)	Identified Investment Needs (\$million)	Shortfall (\$million)
Road capital (State)	945	1083	138
Road capital (Council)	300	361	61
Walkways and boardwalks	30	30	0
Bikeways	18	48	30
Public transport (urban line haul upgrade)	0	635	635
Public transport (general)	30	42	12
Freight Rail at Yatala		10	10
<b>Total Capital</b>	<b>1323</b>	<b>2209</b>	<b>886</b>
Road maintenance (State)	291	291	0
Road maintenance (Council)	180	189	9
Subsidies (Public transport)	228	228	0
Subsidies (Rail <sup>1</sup> )	300	300	0
Subsidies (School transport)	40	40	0
Maintenance (public transport system)	6	6	0
Maintenance (bikeways)	1	1	0
<b>Total maintenance and preservation</b>	<b>1046</b>	<b>1055</b>	<b>9</b>
<b>Grand Total</b>	<b>2369</b>	<b>3264</b>	<b>895</b>

Note: Coolangatta Railway Extension (\$300 million) not included.

Source: City Transport analysis based on major study reports

## Road capital needs

Road capital works needs between 2000/1 and 2029/30 have been identified to total about \$1,444 million City-wide, at an average of \$48 million per year. Currently about \$39 million is spent, so an increase of 25% is identified.

Works on State-controlled roads account for \$1,083 million<sup>2</sup>, or 75%, while Council works amount to \$361 million. The major road capital works needs occur between 2001 and 2008, due to rapid expansion of the City population and the continuing build-up of traffic.

Up until 2010/11, State-controlled capital works need to average \$45.4 million per year. The current annual level of investment in State-controlled roads, discounting the one-off Pacific Motorway, is approximately \$30 million. Over the 30 year period, State investment needs to average \$36 million, just above the present level.

Council capital investment in roads is currently running at about \$9 million per year, and will need to almost double for the first 5 years. Council capital works should average \$15 million between 2000/1 and 2010/11. However over the 30 year period, current Council investment in road capital should only need to average \$12 million, just above present levels.

If investment is not maintained at higher than average levels in the medium term, the existing road system will deteriorate rapidly and the authorities may be swamped by costs of urgent maintenance and ad hoc safety improvement works.

1. Indicative estimate only.

2. The Pacific Motorway upgrade between Logan City and Nerang will be completed by mid 2000. It is discounted from these works needs as the works are already committed.

# Identified general public transport capital funding needs

Apart from the inter-urban Gold Coast railway, current levels of investment in bus public transport infrastructure are relatively low, with about \$1 million per year being expended by both Council and State Government for shelters, interchanges and bus priority.

As part of a general upgrade of the current system, the Public Transport Strategy prepared by Booz-Allen and Hamilton<sup>3</sup> identifies a need for ongoing investment in general improvements to public transport infrastructure of around \$3 million per year up until 2011. On top of this, there are needs for continuous improvement of buses and taxis, which are the responsibility of transport operators.

The results of the City-wide transport planning process indicate incremental improvements, supported by new service types and improved on-road bus priority, could possibly halt the slide in public transport's share of the travel market. But they have no chance whatsoever of achieving the modest target of doubling the present market share of public transport. Without a huge investment in urban freeway infrastructure to reduce congestion, on-road bus services stuck in traffic will never provide the attraction needed to encourage people out of their cars.

To achieve the target increase, the most significant public transport investment need is the "one off" major upgrade of the line haul public transport system. This will provide the capability to meet the targets for increased ridership, and attract people out of cars. The type of system proposed would influence not only travel patterns, but the shape and liveability of the City.



## Line haul public transport investment needs

The level of investment needed to establish a new line haul system will depend on the final type of technology chosen. The preferred planning scenario is to consider investment of \$435 million over the period 2000/1 to 2010/1, comprised of:

- a 32km light rail or busway system costing \$410 million; and
- significant upgrade of bus priority measures and advance acquisition of land for interchanges and right of way in other corridors, at \$25 million.

This \$435 million scheme would establish the line haul system in the major corridors linking Helensvale, Southport, Broadbeach and Nerang, as well as allowing for bus priority to be provided in other corridors. Planning work in the Sinclair Knight Merz study shows potential patronage of 35,000 to 40,000 passengers per day on this type of system.

Beyond 2011, completion of the extensions to the line haul system from Southport to Runaway Bay, and Mermaid Beach to Coolangatta, to accommodate growth in passenger demands, are expected to total a further \$200 million.

As with the road capital needs, the major line haul capital works needs occur before 2011, due to rapid expansion of the City population and the continuing build-up of traffic. It is particularly important, if the major investment in light rail or similar technology is proposed, this be done before the City reaches full development. Early development of the line haul system will enable it to help shape urban development and travel patterns. Conversely, once the City

<sup>3</sup> Booz-Allen and Hamilton (Australia) Ltd. 1998. *Public Transport Strategy for Gold Coast City*. Sydney.



is fully developed around car travel, and roads are heavily congested, it will be much more difficult to utilise existing transport corridors for a light rail or busway system, since the corridors will be totally occupied by traffic lanes and parking.

Extension of the Gold Coast Railway from Robina to Coolangatta Airport has also been suggested by the Queensland Government, at a projected cost of around \$300 million for a 22km extension, including stations and train sets. This extension will support regional objectives in linking the airport to catchments as far north as Brisbane, as well as improving local transport to the future Key Regional Centre at Robina. In this mode of operation the railway might attract an additional 4,000 to 6,000 passengers per day, doubling the present patronage, and making a relatively small contribution to the achievement of the City Transport Plan total 2011 target of 130,000 passenger trips per day on public transport.

If the railway extension proceeds, it will need to maximise its role in carrying trips within Gold Coast City is to have any real effect on achieving the targets. For example, if a narrow gauge light rail system was developed in the City, strategic sections of the heavy rail track could be shared by heavy and light rail vehicles, as is becoming increasingly common in Germany and the UK.

For the present analysis, the Coolangatta extension has not been included in the cost estimates since its cost is high relative to its role in achieving the City Transport Plan's urban transport objective of doubling public transport use. However government may decide to provide funding for this facility in support of its regional and state-wide objectives.

## Investment needs for infrastructure for non-motorised transport

Walkway funding has approached \$1 million per year in recent times, due largely to construction of pedestrian boardwalks in key scenic locations like Surfers Paradise. These investments should continue at this level, and the key scenic corridors along the beaches and foreshores, as well as links to and within major centres like Beenleigh, Southport and Nerang should be progressively upgraded.

Funding for Bikeways is currently running at \$600,000 per year, and this needs to be increased to \$3-4 million per year to construct the major strategic links in the bikeway network, especially the Gold Coast Bridge crossing, and the Helensvale-Robina Veloway. Some of this funding may come from State Government, under a regional cycling plan and program proposed to be developed.

## Identified needs for maintenance and preservation of the road system

Road maintenance costs will progressively increase over time, as the size of the network increases, and many of the pavements created in the 1980s reach the end of their useful lives. Maintenance of State-controlled roads is projected to total \$291 million over the 30 years, at an average of \$9.8 million per year. Department of Main Roads estimates it currently spends about \$8 million per year and has identified short term needs to increase this to about \$13 million, if funding can be secured. Council maintenance costs total \$189 million, at an average of \$6.3 million.

Council is currently spending about \$6 million, however a recent review identified significantly more maintenance funding is needed in the period before 2011, up to about \$8 million per year.

## Identified needs for maintenance and preservation of the public transport system



Public transport systems commonly require a subsidy of operating costs, and in some cases, debt servicing costs. This compensates for the considerable social and environmental benefits offered by public transport.

In the case of publicly-operated Queensland Rail, information on subsidy levels is available as a “Community Service Obligation” (CSO) across the whole Queensland Rail system. In 1997/8 this payment, which is a subsidy paid to cover operating losses, was \$660 million.

Based on a review of this general data, it is conceivable the Gold Coast Railway to Robina will require an annual operating subsidy of about \$10 million. The proposed extension to Coolangatta might affect this subsidy level, although there are no figures on which to base realistic estimates. Given such an extension may double the present patronage on the line, CSO levels may actually decrease as a result, if no debt servicing is required and subsidies continue to be based only on operating losses.

Subsidies to bus operators in Gold Coast City are estimated at \$8-9 million for school and public transport in the City<sup>4</sup>, when Beenleigh services are included. The prevailing framework under the Passenger Transport legislation seeks to reduce and even eliminate subsidies to bus operations in pursuit of efficiencies and budgetary savings. In reality, given the current preference for low density development and the increasing size of the City, major reductions in either rail or bus subsidies are likely to be unachievable if *Strategy Option A* of this City Transport Plan is followed. Indeed, it is conceivable subsidy levels may need to rise, given the spread of low density development.

## Subsidy levels for the new line haul public transport system

Based on the patronage projections for the proposed line haul public transport improvements, there should not be a need for major subsidies to cover operating losses. Indeed, estimates indicate a small operating surplus, perhaps \$5 million per year, could be attained by the 32 kilometre, \$410 million light rail project to link the major coastal centres, as well as Helensvale and Nerang.

There is the need, however, to consider possible debt servicing costs for borrowed capital. It could be expected some of these costs will need to be recovered from operating surpluses, at least in the longer term, unless public funding is provided to cover the entire major capital investment requirements. Since the \$380 million Gold Coast Railway to Robina has been built without any private capital investment, it does seem reasonable to assume a significant proportion of capital costs of the new line haul system will need to be funded out of public revenue sources.

The overall level of subsidy for the new line haul public transport is not likely to exceed present rail operating subsidy levels and indeed could be less due to lower capital costs and higher patronage levels. Some of the operating surpluses will go to cover profit margins and debt servicing costs for some of the private sector investment. Accordingly, in this initial analysis, no ongoing subsidies have been assumed for the line haul project, while the entire capital investment amount has been included in the capital works requirements.

## Yatala freight rail spur

The \$10 million proposed Freight rail connection from Yatala industrial area to the Gold Coast Railway is not funded at present, and is added to the identified capital works needs.

<sup>4</sup> Based on Queensland Transport Annual Report 1996-1997.

## 12.4 Projected revenue for transport

The projected revenue from current public sources, given the present levels of spending, are depicted in the table 12.1. Overall, the projected revenue for the 30 year period 2000/2001 to 2029/2030 is estimated at \$2.37 billion.

This is based on levels of public transport subsidies being maintained and existing commitments being met. In addition, there will be limited growth in areas such as school transport subsidies due to population build up in rural areas.

## 12.5 Identified shortfalls

The major deficits in projected versus required revenue total about \$895 million, comprised of:

<b>Major roads .....</b>	<b>\$199 million</b>
<b>Bikeways.....</b>	<b>\$30 million</b>
<b>General public transport upgrades.....</b>	<b>\$12 million</b>
<b>Line haul urban public transport capital investment.....</b>	<b>\$635 million</b>
<b>Yatala freight rail spur.....</b>	<b>\$10 million</b>
<b>Council road maintenance .....</b>	<b>\$9 million</b>

Likely investment in roads can be met with a 25% increase on present levels of funding by both Council and the Queensland Government. However, as noted above, there is a need to bring forward funding, especially for Council roads, over the period up until 2011, as the City begins to develop and the traffic load continues to build. Average Council capital investment over this period needs to increase to \$15 million per year, with a maximum of about \$19 million in 2003/4. A similar situation applies to road maintenance.

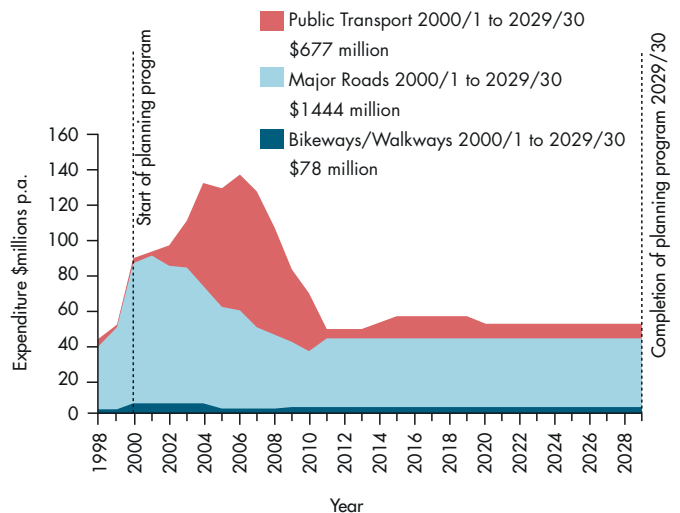
Over 30 years, the deficits in road maintenance and general public transport upgrade can be made up by increasing spending less than \$0.5 million per year.

Bikeways are considerably under-funded at \$600,000 per year if the strategic bikeway links are to be constructed.

Bikeways require additional allocation of about \$2 million per year from Council or the Queensland Government if the objectives of the City Transport Plan are to met, to make up an average investment of \$2-3 million per year, at least up until 2011.

### City Transport Financial Strategy Capital Expenditure (excluding Maintenance & Subsidies)

(Source: City Transport Financial Strategy)

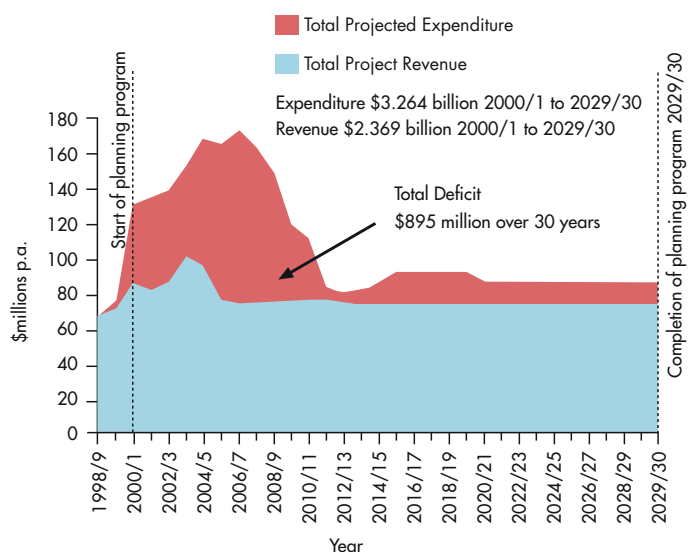


Note: 1. Figures do not include Coolangatta Rail  
2. All costs in 1998 dollars

Spending on line haul urban public transport is the most significant area of shortfall, principally because it receives almost no funding at present. If the City Transport Plan objectives are to be achieved, a large boost in funding of about \$435 million is required prior to 2011. In the remaining 19 years, a further \$200 million should be considered, to allow completion of the line haul system.

### City Transport Financial Strategy Projected Expenditure & Revenue

(Source: City Transport Financial Strategy)



Note: 1. Figures do not include Coolangatta Rail  
2. All costs in 1998 dollars