

**ATTACHMENT 2**

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**DISCUSSION PAPER FOR THE WESTERN  
AUSTRALIAN PLANNING COMMISSION**

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**METROPOLITAN REGION SCHEME  
Amendment No. 1055/33  
FREMANTLE EASTERN BYPASS**

October 2003

**Discussion paper for the  
Western Australian Planning Commission**

*Fremantle Eastern Bypass MRS Amendment 1055/33*

*October 2003*



Department for Planning  
and Infrastructure

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## 1.0 Introduction

The purpose of this paper is to discuss the most significant concerns expressed during the MRS<sup>1</sup> Amendment process and provide the framework on the Government's approach to managing freight in the metropolitan area. It also deals with how specific concerns are being addressed in both the short and long term.

**Appendix 1** below provides background material<sup>2</sup> on the Freight Network Review and the Freight Network Strategy. The Freight Network Review commenced with the first Freight Congress in October 2001. The second Freight Congress in June 2002 set directions and resulted in the development of the Freight Network Strategy and the Six Point Plan.

**Appendix 2** below provides an expanded view of the Six Point Plan, outlines areas under investigation giving an indication of timeframes, and identifies other areas that will be examined as part of the Freight Network Strategy that may be able to contribute to longer term solutions.

The Six Point Plan, pivotal to managing the freight in metropolitan Perth, identifies six areas to be tackled to address growing demand. These are:

1. **Extend Roe Hwy to Kwinana Freeway**
2. **Put more freight on rail**
3. **Build inland container terminals**
4. **Better logistics**
5. **Plan now for the outer harbour at Kwinana**
6. **Improve existing roads**

The Six Steps are part of a broad strategy to meet freight and traffic demand using non-built solutions which, along with some necessary improvements to the existing transport network, provides for a more sustainable approach.

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<sup>1</sup> **MRS:** Metropolitan Region Scheme.

<sup>2</sup> Information extracted from the Department for Planning and Infrastructure website.

## 2.0 An Alternative Approach

Perth is not only the most car dependent city in Australia, it far more car dependent than US cities. This is demonstrated by the key indicators below:

	Perth	Australian Average	USA Average	European Average
Length of road per person	10.7m per person	8.3m per person	6.9m per person	2.4m per person
CBD parking spots per 1000 people	631	489	468	238
% of work trips on public transport	9.7%	14.5%	9%	39%

Whilst we have been able to manage this dependency in the past, as our city continues to grow rapidly, this becomes unsustainable – economically, environmentally and socially.

Plans and actions need to be put in place now to change this dependency. Instead of a “*predict and provide*” approach to addressing freight and traffic demand, a paradigm shift is needed to deliver a more sustainable solution.

The Government’s approach includes a number of major initiatives to address freight and travel demand which are underway. These include:

### Better public transport

- Perth to Mandurah rail line
- Extension of Northern Suburbs Railway
- Thornlie Rail Spur
- new rail cars
- the TravelSmart Program
- South West Metropolitan Public Transport Forum
- Southern Metropolitan East-West Public Transport Study
- Rockingham City Centre Transit Centre
- Rejuvenation of the bus fleet

### Better management of heavy vehicles and freight

- the Freight Network Review
- the Freight Network Strategy and the Six Point Plan
- the Heavy Vehicle Permit System Review & Heavy Vehicle Accreditation
- Statement of Planning Policy for the Strategic Freight Network

## **Better integrate transport and landuse planning**

- Greater Perth
- the Dialogue with the City
- the Perth Bicycle Network Plan
- the Fremantle to Cottesloe Transport Plan

These initiatives all contribute towards changing the way the State confronts the future.

They seek to provide attractive and real alternatives to the use of the car, and also aim to place more of the freight task on rail by improving the interfaces between transport modes.

No longer can modern cities continue simply to look at building new infrastructure as the solution to demand. It must use a wide range of measures:

- better landuse planning to reduce the freight task
- planning solutions to deal with the social impact
- better balance of the freight task between the modes
- ensuring freight uses the most appropriate transport mode
- better use of existing infrastructure
- improving existing infrastructure
- better interfacing between transport modes
- reducing demand from private cars on the road network
- examining different work methods to spread the demand

The Government's approach seeks to make the paradigm shift in adopting a sustainable approach to planning for future Perth.

### **3.0 Concerns Raised about deletion of the FEB reservation**

A number of issues and concerns have been raised as part of the MRS Amendment process to delete the FEB that need some comment. These issues and concerns include:

- 3.1 Concern: That the deletion of the reserve for the FEB and Roe 8 be considered at the same time.
- 3.2 Concern: That MRS amendments to reserve land required for the alternative should be put forward at the same time as the FEB deletion.
- 3.3 Concern: That the Six Point Plan and the alternative route do not provide longer term solutions and that the existing network has problems that need to be addressed.
- 3.4 Concern: That deletion of FEB results in incomplete network and that FEB and Roe 8 provides a more "elegant" solution.
- 3.5 Concern: That impacts on the community have not been fully examined.

## 4.1 Concern: That the deletion of the reserve for the FEB and Roe 8 be considered at the same time

### 4.1.1 Background

- The planning intent for the Fremantle Eastern Bypass was to provide for north-south traffic movement between the river crossing at the Stirling Bridge in Fremantle and regions in the south-west metropolitan area.
- The major target outcomes of building the Fremantle Eastern Bypass were:
  - ◆ removing traffic from Fremantle,
  - ◆ providing improved access to Fremantle Port, and
  - ◆ assisting access to the south-west metropolitan area from the north and north-east metropolitan areas.
- The need to meet the east-west demand west of the Kwinana Freeway is being addressed by the Six Point Plan, an examination of planning concepts and reservation requirements for Rowley and Anketell Roads, and work by the Local Impacts Committee<sup>3</sup> in preparing a preliminary road plan for the existing network.

### 4.1.2 Current Measures to Address the Issue

- The Fremantle City Council has removed some traffic from Fremantle as a result of modifications to the layout of Hampton Road so that the road does not encourage north-south through traffic.
- Traffic has also been reduced by Main Roads removing general access along Hampton Road for permit vehicles (ie heavy vehicles which are longer than 19 metres, wider than 2.5 metres, higher than 4.3 metres and heavier than 42.5 tonnes). Some permit vehicles are allowed to service local needs.
- The Fremantle City Council has longer term plans for a night-time curfew of trucks on Hampton Road prohibiting access by these vehicles outside certain hours.

### 4.1.3 Proposed Measures to Address the Issue

- The alternative solution includes a modified Stock Road, with improved connections to Leach Highway and South Street, to provide the north-south traffic movement previously intended to be carried by the Fremantle Eastern Bypass.
- The alternative also provides for an improved intersection at High Street and Stirling Highway, probably resulting in Stirling Highway – High Street becoming

<sup>3</sup> **Local Impacts Committee:** A committee formed as part of the Freight Network Strategy consisting of community, industry and local/state government representatives chaired by Tony McRae, MLA Member for Riverton and which is examining road development and traffic impact reduction options.

the through route encouraging north south traffic to use Stock road as an alternative to Hampton Road.

- The alternative provides for reducing the freight task on the road system by increasing the use of rail to undertake the freight task to and from Fremantle Port.
- Since the primary purpose of the Fremantle Eastern Bypass as stated above is to remove traffic from Fremantle and to provide improved access to Fremantle Port, which are addressed by the alternative route and the Six Point Plan, there is no compelling need to delete or amend the reservation for Roe Highway Stage 8 at the same time as MRS Amendment 1055/33.
- The additionally stated purpose for Fremantle Eastern Bypass was to assist access between the south-west metropolitan area and the north and north-east metropolitan areas. East-west links west of the Kwinana Freeway are being examined.
- The time to examine the need for the reservation for Roe Highway Stage 8 would be when the alternative is identified, or the need for an alternative is discounted.

#### **4.1.4 Summary**

- Considering Fremantle Eastern Bypass and Roe Highway Stage 8 together while amending the MRS is not essential since the provision of capacity between the north-east and south-west metropolitan areas can still be addressed by a future link west of the Kwinana Freeway into the south-west corridor.
- None-the-less, with measures underway, and in conjunction with the Six Point Plan and the proposed road upgrades, the main objectives of the Fremantle Eastern Bypass will still be delivered.
- Clearly, further planning in the south-west metropolitan region will need to be undertaken following the deletion of the Fremantle Eastern Bypass, and the road development plan and traffic impacts reduction initiatives being pursued as part of the Local Impacts Committee process will be shaped by the deletion.
- Roe Highway Stage 8 is a separate and different situation and will be examined as part of the examination of east-west links west of the Kwinana Freeway.

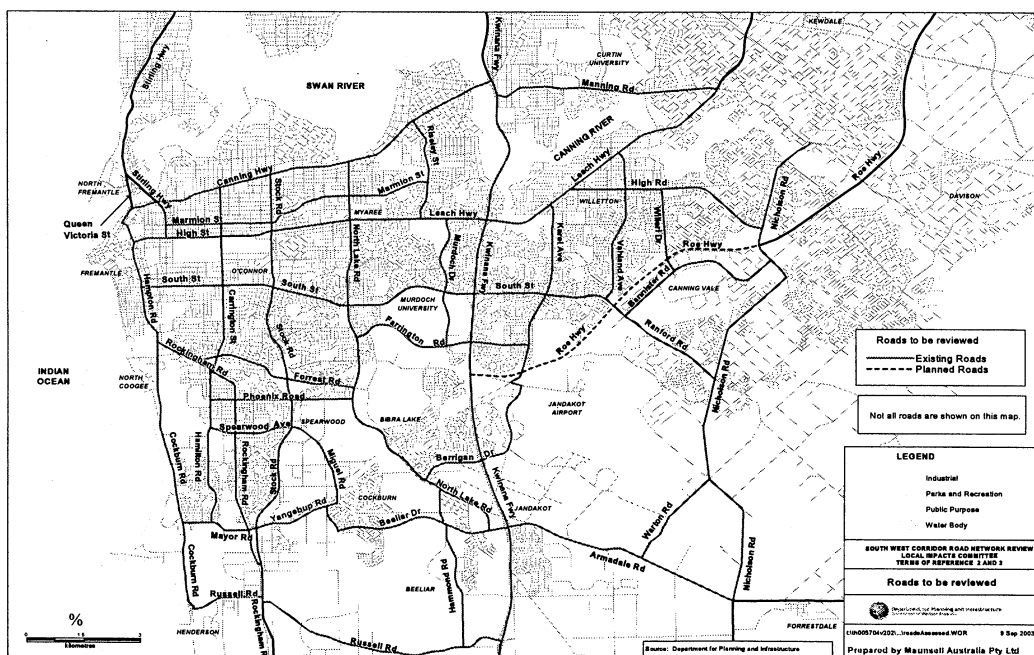
## 4.2 Concern: That MRS amendments to reserve land required for the alternative should be put forward at the same time as the FEB deletion

### 4.2.1 Background

- Deletion of the Fremantle Eastern Bypass may require additional land to be set aside for the improvements to alternative routes.
- This concern relates to the need to ensure that the alternative is included in plans for the future at the same time as the deletion occurs.
- Failure to make MRS amendments to cover the future land requirements is seen as an exposure and a lack of commitment to the alternative.

### 4.2.2 Current Measures to Address the Issue

- The Local Impacts Committee, established as part of the Freight Network Strategy, is undertaking extensive work to address concerns. Terms of Reference 2 and 3 for the Committee's work are:
  - 2) *Develop a strategy for managing traffic on the major roads in the south-west metropolitan corridor, focussing on Leach Highway, South Street, High Street and Stock Road; and prepare a preliminary plan for these roads.*
  - 3) *Determine measures to protect local communities from the impact of freight and general traffic.*
- Term of Reference 1, related to the selection of the preferred alignment for the connection of the extension of Roe Highway to the Kwinana Freeway and has been completed.
- The Committee's work involves examination of an extensive network in the south-west corridor.



- The output from Term of Reference No. 2 will be a preliminary plan for roads in the study area with various treatments recommended for further consideration. Depending on the extent and nature of these treatments, different land reservations may be required, and it would be at the end of this study when further MRS amendments are put forward.

#### **4.2.3 Proposed Measures to Address the Issue**

- As part of the Freight Network Strategy, a Main Roads and Department for Planning and Infrastructure project is examining the priorities for grade separation on the metropolitan freight network. This has included collection of traffic data, evaluating existing intersection performance and developing warrants and criteria for identifying and prioritising work. A prioritised list of intersections, and whether the proposed treatment would fit inside the current land reservation, will be produced.

#### **4.2.4 Summary**

- Additional land required for the intersection treatments will be identified as part of further planning and preliminary design work that will determine future improvements.
- Additionally, a number of assumptions will need to be made about levels of service and objectives to be achieved.
- Future planning and design work will be incorporated into the workplans of the Department for Planning and Infrastructure. Amendments will be progressed as part of that work to ensure that the land required for improvements is incorporated into the MRS and other Schemes.

### 4.3 Concern: That the Six Point Plan and the alternative route do not provide longer term solutions and that the existing network has problems that need to be addressed

#### 4.3.1 Background

- The Six Point Plan represents a collection of measures which, together with some necessary road improvements, aim to improve the efficiency of the network in the south-west metropolitan area. The Six Point Plan also aims to put in place different approaches to dealing with freight and traffic demand. The steps in the Six Point Plan are:
  - ◆ Extend Roe Highway to the Kwinana Freeway
  - ◆ Put more freight on rail
  - ◆ Build inland container terminals
  - ◆ Better logistics
  - ◆ Plan now for the outer harbour at Kwinana
  - ◆ Improve existing roads

There is a view that the retention of the Fremantle Eastern Bypass (FEB) reservation limits discussions and exploration of other ways to solve traffic and freight demand. It automatically directs those seeking solutions to simply look at the provision of new infrastructure as the solution.

Changes in community values and competing expenditure areas suggest that levels of service used in planning for the future network should be scrutinised.

Sustainable answers can be found in taking a holistic view of the issue and looking at the broader areas of demand, logistics, origin of freight and traffic, work patterns and methods, storage and transport mode shift.

These areas are being addressed by the Six Point Plan that looks at a number of ways of solving the problems, including at non-built solutions to managing freight and traffic demand.

#### 4.3.2 Current Measures to Address the Issue

- For each of the steps in the Six Point Plan a number of activities are currently underway. These are shown below:

STEP	ACTIVITIES UNDERWAY
Extend Roe Highway to Kwinana Freeway	<ul style="list-style-type: none"> <li>• Roe 4 &amp; 5 (completed)</li> <li>• Roe 6 underway</li> <li>• Roe 7 alignment finalised and alliance contract to signed shortly</li> </ul>
Put more freight on Rail	<ul style="list-style-type: none"> <li>• Complete new rail loop at Fremantle January 2005</li> <li>• Fremantle Port has a new management contract in place</li> <li>• Progressing a joint marketing strategy with TOLL/Patrick</li> </ul>

	<p>which has seen already seen an increase in rail container movement</p> <ul style="list-style-type: none"> <li>• Major transport companies have committed to redevelop the Kewdale Intermodal Terminal. Planned delivery December 2004.</li> </ul>
Build inland container terminals	<ul style="list-style-type: none"> <li>• Planning for redeveloped Kewdale Intermodal Terminal</li> <li>• Draft Integrated Master Plan for Kewdale/Hazelmere</li> <li>• Midland freight line realignment</li> </ul>
Make better use of our roads	<ul style="list-style-type: none"> <li>• Survey and report on container movement</li> <li>• Introduce 1 Stop Shop (TOLL/Patrick)</li> </ul>
Plan now for the Outer Harbour at Kwinana	<ul style="list-style-type: none"> <li>• Complete strategic and detailed implementation planning and obtain clearances</li> <li>• Review transport connections</li> </ul>
Improve existing roads	<ul style="list-style-type: none"> <li>• Traffic management</li> <li>• Minimise and reduce traffic impacts</li> <li>• Intersection efficiency</li> <li>• Traffic signals coordination and heavy vehicle detection at intersections</li> <li>• Advance ambers warning signals</li> <li>• Hot spot &amp; noise management</li> </ul>

#### 4.3.3 Proposed Measures to Address the Issue

Other opportunities shown below will be explored as resources become available:

STEP	FUTURE OPPORTUNITIES
Extend Roe Highway to Kwinana Freeway	<ul style="list-style-type: none"> <li>• Review heavy vehicle permit<sup>4</sup> network</li> <li>• Improvements to current east-west links</li> </ul>
Put more freight on Rail	<ul style="list-style-type: none"> <li>• Double stack trains</li> <li>• Traffic management at Tydeman Road</li> <li>• Noise and vibration mitigation</li> <li>• Operation priorities for passenger rail</li> <li>• Incentives for rail use</li> <li>• Rail to ship cargo movements</li> </ul>
Build inland container terminals	<ul style="list-style-type: none"> <li>• Container parks in other locations</li> <li>• Examine use of rail at point of origin for containers.</li> <li>• Use of regional ports</li> <li>• Fast track Kewdale Intermodal Terminal planning process</li> </ul>
Make better use of our roads	<ul style="list-style-type: none"> <li>• Port operating hours</li> <li>• Container park operating times</li> <li>• Importer/exporter operating times</li> <li>• Accreditation of transport operators servicing the Fremantle Port</li> </ul>
Plan now for the outer harbour at Kwinana	<ul style="list-style-type: none"> <li>• Fast track planning process</li> <li>• Upgrade east-west links</li> </ul>

<sup>4</sup> Permit Vehicles: Heavy vehicles which are longer than 19 metres, wider than 2.5 metres, higher than 4.3 metres and heavier than 42.5 tonnes and require a permit to operate on the network.

Improve existing roads	<ul style="list-style-type: none"> <li>• Regional Road Development Plan, including <ul style="list-style-type: none"> <li>- Leach Hwy &amp; Orrong Road</li> <li>- Leach Hwy &amp; Stock Road</li> <li>- High Street &amp; Stirling Highway</li> <li>- Increase capacity of Shelley Bridge</li> <li>- Upgrade Stock Road</li> </ul> </li> <li>• Develop road improvement plan, including <ul style="list-style-type: none"> <li>- Left in / left out only intersections</li> <li>- Reduce traffic lights</li> <li>- Noise mitigation and reduction measures</li> <li>- Noise treatments</li> <li>- Advanced amber warning signals</li> <li>- Speed zoning</li> <li>- Traffic Signal synchronisation / modification</li> </ul> </li> </ul>
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#### 4.3.4 Summary

- There has been an unchallenged acceptance that lines on the map (representing Fremantle Eastern Bypass and Roe Highway Stage 8) will solve the transport issues in the south-west corridor. Indeed, there may be a view that the lines on the map solve today's problems.
- There has been a planning principle that the longer term solutions should provide for uninterrupted traffic flow as the target level of service. It is demonstrable that all inner and middle suburban major roads and highways will experience a declining level of service as the city grows. It is neither possible nor desirable to simply cater for this growth. The WAPC itself has had an extensive program. Roads Reserves Review which reducing reservation widths of primary roads and associated property impacts. In the past eight years, over 60 inner and middle road segments have had their reservations reduced.

An in-built assumption is that levels of service will therefore decrease as traffic numbers increase. It is also important to note that levels of service decrease will occur principally in peak hours.

- There are many actions underway, and others that are planned, which will address the concerns raised about the Six Point Plan and the revised Stock Road option being a viable alternative to a future Fremantle Eastern Bypass.

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#### **4.4 Concern: That deletion of FEB results in incomplete network and that FEB and Roe 8 provides a more “elegant” solution**

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##### **4.4.1 Background**

- For many years FEB and Roe 8 has been seen as the accepted solution to providing an east-west link from the Kwinana Freeway through to Fremantle and the Fremantle Eastern Bypass.
- The reservations for Roe Highway Stage 8 and Fremantle Eastern Bypass were put in place when community values were different to those of today. Wetlands were seen as having little value and transport corridors were often placed in or adjacent to these areas.
- As a consequence some of the best wetlands have been preserved because of significant transport corridor reservations. If today's values were applied a different network would result.

##### **4.4.2 Current Measures to Address the Issue**

- The deletion of Fremantle Eastern Bypass will drive a re-examination of the network serving the south-west corridor. As part of the Six Point Plan, the transport connections for the Outer Harbour are being examined.
- Roe Highway Stage 7, when completed to the Kwinana Freeway, will change the patterns of movement with an estimated 50 percent of traffic travelling south on Kwinana Freeway after exiting Roe Highway.

##### **4.4.3 Proposed Measures to Address the Issue**

- The east-west links west of the Kwinana Freeway will need to be re-examined to determine solutions to longer term needs. The Roe Highway Stage 8 will be examined as part of this work.
- The re-examination will need to take account of a number of factors including Roe Highway constructed to the Kwinana Freeway, plans for the Outer Harbour at Kwinana, container park locations, increasing demand for rail from a redeveloped inland container terminal at Kewdale and improved rail facilities at Fremantle.
- The Greater Perth and the Dialogue with the City initiatives will re-examine the plans for future Perth, and will propose different and new solutions.

##### **4.4.4 Summary**

- The Six Point Plan and the Revised Stock Road serve to address this concern, and the *Dialogue With The City* and the *Greater Perth* initiatives will provide a check between the values the community hold today and the plan for future metropolitan Perth.

## **4.5 Concern: That impacts on the community have not been fully examined**

### **4.5.1 Background**

- The Six Point Plan and the revised Stock Road option involves no new roads.
- Social impacts such as noise, severance, access, and vibration from the revised Stock Road and the Six Point Plan are significantly less than if the Fremantle Eastern Bypass were constructed.
- The nature of the use of the major arterial roads in the south-west corridor would not be expected to change with the construction of the Fremantle Eastern Bypass.
- Planning for the south-west corridor is examining public transport access in the south-west corridor.

### **4.5.2 Current Measures to Address the Issue**

- In order to manage the continuing use of the existing network, the Local Impacts Committee has as its tasks:
  - ◆ *developing a preliminary plan for roads in the area with particular focus on Leach Highway, Stock Road, South Street and High Street.*
  - ◆ *identifying measures to protect local communities from the impact of freight and general traffic.*
- Removing freight from the road system on to rail will reduce impacts. Issues raised about the increased use of rail will be managed by initiatives such as double stacking to reduce train numbers, and longer trains into the terminal at the Fremantle Port.
- A review of the permit vehicle network will ensure the impact of these vehicles is managed.

### **4.5.3 Proposed Measures to Address the Issue**

Local precinct planning will be one method of reducing impact. This would include the identification of landuse precincts adjoining the alternative route where up-zonings could be considered.

Preliminary investigations show that there are currently areas of old housing stock that could benefit significantly from the introduction of higher residential density codes. This is consistent with DPI / WAPC Policy concerning preferred densities along major arterial routes. These higher density codes would encourage redevelopment, and the replacement housing would be required to incorporate appropriate amelioration measures to reduce the impact of adjacent road use.

A pilot in the impact area would involve extensive consultation with affected landowners and local government.

#### **4.5.4 Summary**

Actions included in the Six Point Plan are aimed at reducing traffic and freight impacts on the existing network.

The preliminary plan for roads including Leach Highway, South Street, High Street, and Stock Road will address access and efficiency issues.

In examining ways to reduce the impacts of freight and traffic, the Local Impacts Committee can be expected to recommend treatments and solutions including:

- noise mitigation
- speed reduction
- intersection modifications
- advanced amber warning lights
- bus stop embayment
- pedestrian facilities
- road safety improvements

Additionally, planning solutions and providing alternatives to private travel are seen as methods of reducing the social impact.

## 5.0 Summary

The Government has preferred to adopt a broader approach to finding solutions for the growing transport and freight demand. To simply confront the demand with the delivery of more transport infrastructure is not sustainable in the face of growing community concerns about the environment and social amenity.

Balancing demands on Government revenues between the competing areas of health, education, policing and infrastructure provision is an increasingly difficult task.

Built solutions should no longer be the simple option. The proposed approach of a revised Stock Road option and the Six Point Plan, with its mix of relatively low cost improvements, systemic changes and transport mode shift, is a realistic and achievable solution.

In summary:

- the revised Stock Road and the Six Point Plan has less environmental and heritage impacts,
- the revised Stock Road option and the Six Point Plan present themselves as a potentially more sustainable solution for the long term,
- the Government's diverse strategies are aimed at interrupting the increasing dependency on the car,
- reducing the demand on the network by private vehicles is a key element of the solution,
- the Local Impacts Committee, formed as part of the Freight Network Strategy, is providing a rigorous examination of upgrading required for the network, and for reducing the impacts of freight and general traffic in the regions.

The deletion of the reservation for the Fremantle Eastern Bypass forces different approaches and different thinking to planning and providing for future freight and traffic.

## Appendix 1: Freight Network Review<sup>5</sup>

### Freight Network Review

The Freight Network Review brought together the community, industry and Government in 2001/02 to devise better ways of moving freight in the metropolitan area. A particular focus was given to the significant imbalance in freight haulage between road and rail and real concerns about further development of the strategic road freight network to Fremantle Port.

Efficient freight movement is essential to WA's economy. More than 60 million tonnes of freight moves in and through the metropolitan area and well designed transport networks with good access to major terminals and depots are essential for the freight industry. At the same time, community severance, damage to wetlands, noise, pollution, safety and the devaluing of property are major concerns for the community, and often a point of conflict between the public and the industry.

A central part of the Review was the Freight Congress (October 2001), involving a wide range of organisations, government agencies, community and environmental groups, businesses and other interested volunteers. The first Freight Congress considered options to manage freight demand, improve the sustainability of freight transport, reduce future problems, and focus Government intervention to reduce the impact of freight. It identified six key areas for detailed study, which were overseen by working groups with community, industry and Government representatives:

- sustainability in relation to freight
- a Master Plan for the freight network
- strategies to increase the use of rail
- the role of regional ports in reducing metropolitan road freight activity
- the capacity and limits of Fremantle Inner Harbour
- new funding opportunities, including hypothecation of funds

The Master Plan set a comprehensive framework for policy, planning, infrastructure and commercial initiatives, and brought together the recommendations and actions from the other specific studies.

The 2nd Congress, held on 15 June 2002, focused on recommendations to improve the sustainability of Perth's freight system. Participants voted on their top 10 priorities, using the strategies and actions in the Master Plan. These priorities are being implemented through the Freight Network Strategy within the Planning and Infrastructure portfolio, mainly by the Department for Planning and Infrastructure, Main Roads, Fremantle Ports and the Public Transport Authority.

The Freight Network Strategy provides a framework to achieve a sustainable freight solution for Perth and its southern suburbs and it is incumbent on all parties to find long term sustainable transport solutions to our freight issues.

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<sup>5</sup> Extracted from Department for Planning and Infrastructure Website ([www.dpi.wa.gov.au](http://www.dpi.wa.gov.au))

## Freight Network Strategy

The priority actions set by the second Freight Congress in June 2002 provide the framework for the Freight Network Strategy. These priorities are being implemented by the Planning and Infrastructure portfolio, mainly by the Department for Planning and Infrastructure, Main Roads, Fremantle Ports and the Public Transport Authority.

The full Strategy is shown below. The projects grouped under the headings of Rail/ Intermodal, Road Issues and Port and Related Planning have been identified as high priority and are being actively progressed. A number of other projects dealing with policy matters, statutory processes and evaluation methodologies are being progressively scoped and implemented.

<p><b>RAIL / INTERMODAL STRATEGY</b></p> <p><b>4.1 Measures to increase the mode share of Rail to Inner Harbour WG5 (2)</b></p> <ul style="list-style-type: none"> <li>• 2.4 Leighton Rail Loop - plan and construct <b>WG4 (4) &amp; WG6</b></li> <li>• 2.5 North Quay Rail Terminal <ul style="list-style-type: none"> <li>- Port Beach Road re-alignment <b>WG3 (I-2)</b></li> <li>- Development of Terminal <b>WG3 (I-3, 1-6)</b></li> <li>- Rous Head reclamation Stage1 <b>WG3 (I-4)</b></li> <li>- Port Beach Road extension <b>WG3 (I-5)</b></li> </ul> </li> <li>• Industry Strategy <b>WG3 (GS-1,2,3), (CO-1)&amp; (NT-1)</b> Inner Harbour - Kewdale rail service North Quay Terminal management</li> <li>• Development of Kewdale Intermodal Terminal</li> </ul>	<p><b>ROAD ISSUES</b></p> <p><b>Traffic Management</b></p> <ul style="list-style-type: none"> <li>• 8.2 <ul style="list-style-type: none"> <li>(a) Selected grade separation</li> <li>(b) Traffic signal coordination</li> <li>(c) Traffic signal advance detection</li> </ul> </li> <li>• 7.2 Resolving "Hot spots"- also linked to</li> <li>• 7.1 prevention of future "Hot spots"</li> </ul>
<p><b>Integrated Master Plan for Kewdale / Forrestfield / Hazelmere</b></p> <ul style="list-style-type: none"> <li>• 2.7 Midland freight line - assess alignment options</li> <li>• 2.6 Kewdale ICT - develop Intermodal / inland Container Terminal <b>WG3 (I-8) &amp; (PP-1)</b></li> <li>• Integrated transport / land use master plan and structure plan</li> <li>• Detailed infrastructure plan including road network improvements and sewage</li> </ul>	<p><b>Existing Network</b></p> <ul style="list-style-type: none"> <li>• 2.2 Delete the Fremantle Eastern Bypass from the Metropolitan Region Scheme.</li> <li>• 2.1 Finalise alignment / design and construct Roe Highway Stage 7 to Kwinana Freeway</li> <li>• 2.3 South West Metro corridor - Leach Hwy / South Street / Stock Road / High Street</li> </ul> <p><b>NEW NETWORK</b></p> <ul style="list-style-type: none"> <li>• 2.12 Freight link from Albany / South West and Brookton Highways to Roe Highway</li> </ul>
<p><b>Other Rail Planning</b></p>	<p><b>INDUSTRY OPERATIONS</b></p> <ul style="list-style-type: none"> <li>• 8.1 Reduction in empty truck activity <ul style="list-style-type: none"> <li>- wider working hours</li> <li>- Inland container depot</li> </ul> </li> </ul> <p><b>PORT AND RELATED</b></p>

<ul style="list-style-type: none"> <li>• Upgrade Kewdale - Inner Harbour line for double stacked trains <b>WG3</b> (1-7)</li> <li>• 2.9 Trial new technology for rail freight</li> </ul>	<p><b>PLANNING</b></p> <ul style="list-style-type: none"> <li>• 3.1 Planning for Outer Harbour <b>WG5</b> (1)</li> <li>• 2.6 and 3.2 Kwinana Intermodal Container Terminal - plan/reserve (FRIARS)</li> <li>• 2.11 Planning for Rowley Road, Anketell Road and Thomas Road</li> </ul>
<p><b>TRANSPORT POLICY</b></p> <ul style="list-style-type: none"> <li>• 9.2 Develop /Implement Local Transport Plans</li> <li>• 9.1 Practical Metropolitan Transport Plan including:             <ul style="list-style-type: none"> <li>- Transport Energy Policy</li> <li>- Trialing Alternative fuels</li> </ul> </li> <li>• 6.1 SPP-Statement of Planning Policy for the Strategic Freight Network <b>WG3</b> (PP2 &amp; PP3) and <b>WG5</b> (4 &amp; 7)</li> <li>• 8.2(i) National Freight Logistics Review</li> </ul>	<p><b>STATUTORY PROCESSES - EXISTING</b></p> <ul style="list-style-type: none"> <li>• 8.2(d) Operational management practices at key nodes e.g. at Inner Harbour refer: <b>WG5</b> (7 &amp; 8)</li> <li>• 8.2(e to h) Australian Design Rules for noise and air quality / National Environmental Protection Measures</li> </ul>
	<p><b>PROJECT EVALUATION</b></p> <ul style="list-style-type: none"> <li>• 1.2(a) Include the cost of externalities in assessment of projects <b>WG4</b> (1) and <b>WG3</b> (SE1)</li> <li>• 1.2(b) MCA - Apply Multi Criteria Analysis of new projects and proposals <b>WG5</b> (10)</li> <li>• 1.2(c) TIA (Transport Impact Assessment guidelines)</li> <li>• 1.2(e) Review the freight system regularly using sustainability criteria, including monitoring levels of freight traffic activity</li> </ul>

## **Appendix 2: Six Point Plan**

### **Introduction**

The Freight Network Strategy is one of the Government's highest priorities and is the outcome of the Freight Network Review that commenced with the first freight congress held at Fremantle in October 2001. A second freight congress in June of 2002 lead to the development of the Freight Network Strategy with its key thrust of finding sustainable ways for managing and moving freight in the metropolitan area.

Key drivers for the Six Point Plan include:

- examining ways to address the imbalance between road and rail modes used to move freight in the metropolitan area,
- concerns about the future development of the road network servicing the Fremantle area,
- the need to identify non-built solutions to demand,
- the need to address the concerns of the community and transport industry,
- changing values in the community in relation to social, economic and environmental issues,
- the need to get best value from existing infrastructure, and
- ensuring the integration of land use and transport planning.

This Appendix provides more detail for each step of the Six Point Plan, listing initiatives that are underway or are being examined for further investigation. The steps in the Six Point Plan are:

- extend Roe Highway to the Kwinana Freeway
- put more freight on rail
- build inland container terminals
- better logistics
- plan now for the outer harbour at Kwinana
- improve existing roads

Considerable resources within the Planning and Infrastructure portfolio are allocated to undertake work associated with the Six Point Plan.

## Extend Roe Highway to the Kwinana Freeway

### Background

Roe Highway is a key part of Perth's road network, providing a link from the north-east metropolitan area through to developing industrial areas in Canning Vale, Kwinana and Naval Base. It will be a key link through to the Kwinana Freeway and routes to Bunbury and the South West.

Stages 4 and 5 of Roe Highway were completed in late 2002/early 2003 and now provide access through to Nicholson Road. A significant impact of the opening of this section has been the removal of freight traffic from local roads including Williams Street in Beckenham.

Stage 6 of Roe Highway between Nicholson Road and South Street is on schedule for completion during the first half of 2004.

An alliance contract is being finalised for Roe Highway Stage 7 that will complete Roe Highway through to the Kwinana Freeway. Subject to environmental clearance, construction work is expected to commence early 2004.

### Associated Initiatives

Actions Underway	Benefits	Issues and comments	Agency	Status / Timeframe
Roe Highway Stage 4&5	Removed heavy vehicle traffic off local roads.	Traffic management issues at the termination of Roe 5 near Nicholson.	MRWA <sup>6</sup>	Completed. Stage 4 opened to traffic December 2002 and Stage 5 in January 2003.
Roe Highway Stage 6	Provides connections to the Canning Vale industrial area, and improves access to adjacent residential and recreational areas.	South Street will carry additional traffic until Roe 7 complete.	MRWA	Completion during first half 2004.
Roe Highway Stage 7	Provides connection through to Kwinana Freeway, and on through to Kwinana, Naval Base, the South West and Bunbury.	Some residual concerns about impact of the new road on Ken Hurst Park.	MRWA	Alignment finalised. Contract almost prepared. Construction planned to start early 2004.
Other Actions	Benefits	Issues and comments	Agency	Status / Timeframe
Review heavy vehicle permit network	Reduce dependency of permit vehicles on Leach Highway. Reduce heavy vehicle traffic volumes on Nicholson Road and Leach Highway. Permit vehicles restricted to most suitable routes.	Impacts along the heavy vehicle network, ie noise, congestion, etc, will need to be addressed. Concerns about increased travel times or distances.	MRWA	Completion first half 2004.
Examine a connection of	Meet north-east ↔ south-west demand.	Sensitivity of the wetlands.	DPI <sup>7</sup>	Preliminary work undertaken

<sup>6</sup> MRWA: Main Roads Western Australia

Roe Highway through to Stock Road on a different alignment.	Take pressure off the Kwinana Freeway. Reduce pressure from Leach Highway and South Street.	Existing development and landuse. Concerns about increased travel times or distances. Concern about timing / impact of Roe Highway Stage 7.	by DPI.
Examine opportunities to upgrade and improve existing east-west links.	Provides improve access to the Outer Harbour and the Kwinana industrial area. Reduce pressures on Leach Highway, South Street, and Thomas Road.	Planning for the Outer Harbour will determine if Anketell Road or Rowley Road is major conduit but will both provide improve east-west access to the Kwinana Industrial area.	DPI  Rowley Road concepts completed. Anketell Road progressing. Statutory process to follow.

### Put more freight on rail

#### Background

WA's growing economy means that the freight task to the Fremantle Port is increasing. In order to manage the impact on the road system the Government is targeting a significant proportion of this increase with a number of actions, one of which is to increase the amount of freight into and out of the port by rail.

The current number of TEUs<sup>8</sup> handled by Fremantle Port is about 350,000 (2002) per annum with the number expected to triple by about 2017. The objective is to move around 30% of the containers by rail by around 2012.

This objective is being addressed by a number of measures including construction of new rail loop and terminal, better rail to ship cargo movement, development of the Kewdale Intermodal Terminal.

Other ways in which the increase in trucks will be managed is by having an efficient truck booking system to reduce the number of empty trucks, making better use of container storage facilities, and through development of port overflow facilities at Kwinana when required in the future.

Longer term areas that will be examined including new technology such as specialised trains for container movement, planning controls to ensure freight corridor protection and the development of business arrangements with industry.

#### Associated Initiatives

Actions Underway	Benefits	Issues and comments	Agency	Status / Timeframe
Construct new rail loop	Longer container trains can be handled at the	Still negotiating minor land requirement.	FPA <sup>9</sup>	Construction completed

<sup>7</sup> DPI: Department for Planning and Infrastructure

<sup>8</sup> TEU: Twenty foot equivalent unit.

<sup>9</sup> FPA: Fremantle Port Authority

and rail freight terminal at Fremantle.	Port. Improved efficiency of the rail service. Dual gauge lines into port allowing direct access by trains from regional centres.		DPI	by January 2005.
Marketing strategy by FPA & TOLL/Patrick	Targets large importer/exporters for greater use of the rail access to and from the Port. Containers on rail closer to origin, eg hay industry who transport by road to the Port. Provide closer connection and improved efficiency of rail to the port.		FPA	First half of 2004 and ongoing.
Provide container park as part of the Kewdale Intermodal Terminal.				Tied to Kewdale Intermodal Terminal development.
<b>Other Actions</b>	<b>Benefits</b>	<b>Issues and comments</b>	<b>Agency</b>	<b>Status / Timeframe</b>
Double stack trains	Greater efficiency by increasing the carrying capacity of a train Less trains required to carry a given volume of cargo. Reduced environmental and social impacts overall (through reduced road freight and reduced number of trains for a given volume of cargo)	Construction project for Spencer Rd station by New Metro Rail will not increase clearance for freight line. Expenditure will be required later when increased clearance is required. There are various height clearance constraints to double stacking depending on the size of containers and the type of rail wagon used ie standard flat top or well wagon. The cost of providing the necessary height clearances will depend on the particular configuration.	PTA <sup>10</sup> FPA	Review to be completed mid 2004.
Grade separation at Tydeman Road	Reduce traffic delays at level crossing	Grade separation is not feasible near Bracks Street due to the constraints of the rail terminal needing to be almost level and close to existing ground level, and the level of Tydeman Road. New entrance to the Patrick terminal and a future alignment of Curtin Avenue intersecting Tydeman Road east of the rail crossing.	FPA MRWA	Investigation completed.
Vibration / noise mitigation	Increased amenity for adjoining business and residents from reduced noise emission from	Extra costs associated with increased maintenance requirements of railway.	PTA	Ongoing

<sup>10</sup> PTA: Public Transport Authority

	railway.		<p>Possible noise walls reducing amenity</p> <p>Increased number of trains increasing noise impact on adjoining neighbours.</p> <p>Where freight trains mix with the urban passenger operations the freight trains can only operate outside peak passenger times (6-9 am and 3.30-6 pm). This is because passenger operations have limited time (6 mins) between services within which to accommodate freight train movements.</p> <p>Currently Fremantle Ports is progressing initiatives to put more freight on rail in conjunction with the rail operators to the port. There has been significant success in relation to this initiative in 2003.</p> <p>However, work is progressing to determine how further growth can be achieved consistent with the FNR<sup>11</sup> targets for rail to the port.</p> <p>It is appropriate that as part of this further work consideration be given to possible incentives to help achievement of the targets.</p> <p>There will be considerable issues to consider including the reaction of the road transport industry, responsibility for meeting the cost of any incentives, the duration of incentives etc.</p>	PTA	Ongoing
Operational priorities for passenger rail	Improved efficiency of rail operations. However longer trains and double stacked trains will largely meet demand.				
Incentives for rail use	Reduced trucks on roads to and from the port leading to reduced congestion as well as other economic, social and environmental benefits.			FPA DPI MRWA	Mid 2004
Better rail to ship cargo movement	Benefits would be a more seamless integration of container terminal and rail terminal operations in terms of the handling and transfer of containers, leading to a more cost effective and competitive freight rail service.			FPA DPI	Review completed December 2004

<sup>11</sup> FNR: Freight Network Review

<sup>12</sup> AQIS: Australian Quarantine Inspection Service

	<p>limits the ability to derive the maximum benefit from the improved location of the new rail terminal.</p> <p>It appears that at this point in time this may be unavoidable, but the potential for improvements in the future should be further investigated with AQJS and Customs.</p>	
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### Build inland container terminals

#### Background

Improving the interface between transport modes is seen as a significant opportunity to better manage the impact of trucks on our road network. Fully developed container parks provide better opportunities for efficient warehousing, distribution services, and transport logistics.

A significant initiative is underway to plan for the development of an intermodal facility at Fremantle that will assist in reducing the truck movements to and from the Fremantle Port.

In addition work to develop an integrated masterplan for Kewdale-Hazelmere region is underway. This work also involves the examination of the alignment of the Midland freight line.

#### Associated Initiatives

Actions Underway	Benefits	Issues and comments	Agency	Status / Timeframe
Kewdale Intermodal Terminal	<p>Provide improved interface between road and rail.</p> <p>Facilitate the increase in rail freight to Fremantle Port.</p> <p>Reduce the numbers of trucks servicing Fremantle Port.</p>	<p>The Kewdale site has commenced operations on a staged basis. It will provide a more extensive service on completion of the master plan and implementation of some of the capital works.</p>	PTA DPI	Planning approvals expected mid 2004.
Kewdale-Hazelmere Masterplan	<p>Provide a clear framework for the strategic planning of the Kewdale-Hazelmere region.</p> <p>Clarify land use issues impacting on the region.</p> <p>Facilitate structure planning for the region.</p>	<p>Includes the realignment of the Midland rail line to reduce impacts.</p>	PTA DPI	Planning approvals expected mid 2004.
Realignment of the	Reduce rail freight impacts.	Part of the Kewdale-Hazelmere Region Integrated Masterplan.	PTA	Planning approvals

Midland rail freight line.		Impacts of Bush Forever, heritage sites. Road crossings and grade separation. Funding.	DPI	expected mid 2004.
<b>Other Actions</b>	<b>Benefits</b>	<b>Issues and comments</b>	<b>Agency</b>	<b>Status / Timeframe</b>
Examine opportunities to establish container parks in other locations in the metropolitan area.	Help lead to reduce truck traffic in and around Fremantle Port and assist in getting more freight on rail Reduce container park load at Fremantle Port Place container parks at locations suitable for operators and industry	Clearly this issue needs to be considered in the context of assisting to achieve the benefits outlined above and linked with the other relevant projects listed above. The results of the current study of container movements in and out of Fremantle Ports will be critical information in assisting determine the most suitable possible locations for container parks outside of the port area. The results of the study are expected to be available by the end of 2003. Container park needs currently being addressed as part of the Kewdale Master Plan Locations may be subject to Statutory Planning processes and approvals The Kwinana site is in addition to the existing ARG terminal and is on surplus land under the control of the PTA. PTA has withdrawn the site from the disposal program pending a decision on its suitability as a freight terminal.	FPA DPI MRWA	June 2004
Discuss with industry the feasibility of loading containers onto rail close to the point of origin.	Will help to reduce truck numbers carrying containers to the port and will also assist reduce truck traffic in and around the port area.	The results of the current study of container movements in and out of Fremantle Ports will be critical information in assisting determine possible target areas and exporters and importers in those areas. The results of the study are expected to be available by the end of 2003.	DPI FPA MRWA	June 2004
Examine opportunities for containers to be exported/imported via regional ports.	Reduction in traffic on Inner Harbour accesses	Most import containers are for destinations in the metro region. Most export containers originate from the metro or closely adjacent regions. Significant increase in the land transport task in using regional ports for handling international container trades. Substantial additional land transport costs in using regional ports for handling international container trades. Need to provide duplicate container handling facilities at regional ports. Shipping lines have demonstrated a reluctance to call at regional ports in addition to or as substitutes for Fremantle. Proposals to use the regional ports of Geraldton, Bunbury and Albany for handling containers have been investigated in previously conducted studies, which generally concluded that none of the	Ports DPI MRWA	No planned action at this time.

	regional ports provide a commercially viable option for the handling of the international container trades.	
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## Better logistics

### Background

WA has a considerable investment in existing infrastructure and opportunities need to be examined in order to get best use out of that infrastructure.

In the past there has been a focus on built solutions to meet increasing demand for freight and traffic movement. The Government through the Freight Network Strategy is examining ways to reduce the impact of trucks and freight movement on our roads. In particular, the expected increase in container movements to and from the Fremantle Port needs to be managed by a mix of built and non-built solutions.

Recent monitoring undertaken by the Department for Planning and Infrastructure suggests that up to 30 percent of container trucks travelling to and from Fremantle Port are empty. A Container Movement Study is underway that will provide a better understanding of the issues and movement of containers. The solutions will require considerable work by the parties involved. Other approaches to be examined will include managing the volumes of non-freight traffic on freight routes by improved and attractive public transport facilities.

### Associated Initiatives

Actions Underway	Benefits	Issues and comments	Agency	Status / Timeframe
Container Movement Study	Improve the understanding of the movement of containers in the metropolitan area.	General acceptance of the initiative by industry. Current data of freight movement in the metropolitan area is weak.	DPI FPA	Preliminary two way loading study completed end 2002. Consultation and further study to be completed end 2003
Common and Compulsory Vehicle Booking System	Reduced trucks on roads to and from the port Reduced congestion as well as other economic, social and environmental benefits.	Fremantle Port is currently served by a large number of road transport operators, many of who are owner drivers or run very small companies. There has been some opposition from small operators to this proposal	DPI FPA	Mid 2004
<b>Other Actions</b>	<b>Benefits</b>	<b>Issues and comments</b>	<b>Agency</b>	<b>Status / Timeframe</b>
Make better use of port availability.	Better use of transport infrastructure by spreading the use of the transport network over longer periods.	The Port already operates 24 hours per day based on demand. Impacted by container park and importer/exporter operating times. Increased use of the transport network outside core	DPI FPA MRWA	No planned action at this time.

<p>Container Park Operating Times</p>	<p>Better truck utilisation Reduction in density of heavy vehicles on some routes. Better utilisation of the transport system. Increased likelihood of backload with an empty container regardless of when they deliver or pick-up a loaded box at the port</p>	<p>times may result in social impact, eg noise, smell, vibration. Container Parks store, clean and repair empty containers which are owned by shipping lines and are either taken to an exporter for loading or shipped out empty. At present they generally close by 5pm. Container parks say there is no ongoing demand – they will open for a fee if customers indicate a requirement. Increasing container park operating hours to match port operating hours could enhance efficiency by enabling truck operators to backload with an empty container regardless of when they deliver or pick-up a loaded box at the port. Containers cannot be released without shipping line approval so shipping office must also be open to resolve queries. Reportedly a very low margin business so extended hours could result in additional costs for users. Container Movement Study currently under way will improve understanding of this issue.</p>	<p>DPI FPA</p>	<p>No planned action at this time. Outcome of container movement Study will provide a better of issues.</p>
<p>Importer/Exporter Opening Times</p>	<p>Better truck utilisation. Reduction in density of heavy vehicles on some routes. Better utilisation of the transport system.</p>	<p>Importers/Exporters generally outsource their transport operations and organise their opening times to suit their business, not considering transport efficiency a high priority. Some adopt an “it’s not our problem” attitude without seriously considering the potential benefits of longer openings. Some transport companies have gate keys so that boxes can be left in the imp/exp yard out of hours, but many companies are reluctant to have loaded boxes left in the open overnight. Many imp/exp are not sufficiently large to warrant extended hours and the shift working implied. Those that are larger should be encouraged to consider extended opening but there would have to be demonstrated commercial benefits.</p>	<p>DPI FPA</p>	<p>No planned action at this time. Outcome of container movement Study will provide a better of issues.</p>
<p>Accreditation of transport operators servicing the</p>	<p>Better truck utilisation. Reduction in density of heavy</p>	<p>Fremantle Port is currently served by a large number of road transport operators, many of who are owner</p>	<p>DPI FPA</p>	<p>No planned action at this time.</p>

<p>port.</p>	<p>vehicles on some routes.</p>	<p>drivers or run very small companies.                  The size of these transport operators and their level of technological literacy makes it difficult for them now and in the future, with anticipated compulsory vehicle booking at the stevedoring terminals, to get two-way loads.                  Without being technologically literate smaller, less efficient companies will be increasingly unable to compete for port business.                  Smaller operators may cease to serve the port or will subcontract to larger companies and so better truck utilisation will result.                  Also, increased emphasis on security at the port will focus more attention on who is able to gain access to the wharf. Some kind of security clearance system may be introduced, increasing the reporting and compliance requirements and thereby effectively excluding the smaller, less efficient operators.                  Security concerns and technological advances will bring efficiencies, so accreditation per se is not recommended at this stage.</p>	<p>MRWA</p>	<p>However, WA Heavy vehicle accreditation has been introduced and applies to all permit vehicle</p>
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**Plan now for the Outer Harbour at Kwinana**

**Background**

Fremantle is Western Australia's major port and there is broad support for it to continue as a working port. However, the capacity of the Inner Harbour is limited and a future facility will be required to serve the medium to long term container and general cargo needs.

Planning for additional facilities at Kwinana started many years ago. The Freight Network Review has lifted the urgency of this work and a timeframe of five years has been set to achieve all approvals for the project. It is not envisaged that construction of the future facility would need to be commenced inside that timeframe.

Other actions related to this initiative include reviewing the status of Anketell Road, Rowley Road and Thomas Road west of the Kwinana Freeway, and a dual gauge link to the main freight line. This work is well advanced.

**Associated Initiatives**

<b>Actions Underway</b>	<b>Benefits</b>	<b>Issues and comments</b>	<b>Agency</b>	<b>Status / Timeframe</b>
Plan now for the Outer Harbour at Kwinana	Ensure that the planning proceeds in order to facilitate the development of the OH <sup>13</sup> as need arises. Obtain early approvals for OH.	The process of obtaining approval within 5 years has commenced. Timeframe appears realistic. Environmental issues. Protection of transport corridors.	FPA DPI	Planning approvals to be obtained within 5 years, ie 2007.
<b>Other Actions</b>	<b>Benefits</b>	<b>Issues and comments</b>	<b>Agency</b>	<b>Status / Timeframe</b>
Intermodal terminal at Kwinana	Improved interface between the transport modes.	Asset disposal on hold while this work is undertaken.	FPA DPI	Being considered as part of the overall project to plan for the OH, but also to be examined as part of the project to increase rail to the IH <sup>14</sup> .
<i>Future access to the future OH: Review the status of Anketell, Rowley and Thomas Roads west of the Kwinana Freeway.</i>	Improved access to future Outer Harbour. Services the south and south-west through to the coast in Kwinana / Fremantle area.	Potential impacts on the road reserves through industrial development. Urban encroachment. Protection of transport corridors. Substantial statutory processes are required. Kwinana Council have plans for Thomas Rd. Anketell and Rowley Roads are currently local government roads.	DPI FPA MRWA	Planning concepts and reservation requirements completed for Rowley Rd. Planning concepts and reservation requirements for Anketell Road are progressing.
<i>Future access to the future Outer Harbour: Examine a dual gauge line to the main freight line.</i>	Improved access to future Outer Harbour. Improved interfacing between the transport modes. Reduced road transport task. Social and environmental benefits from greater use of rail.	Protection of transport corridors. Substantial statutory processes are required.	DPI PTA FPA	Planning concepts and reservation requirements for a dual gauge line are progressing.

<sup>13</sup> OH: Outer Harbour<sup>14</sup> IH: Inner harbour

## Improve existing roads

### Background

The deletion of the Fremantle Eastern Bypass for the MRS will necessitate close examination of the existing network to ensure that, along with non-built measures, the strategy for managing freight movement in the metropolitan area involves improving and upgrading the existing road network.

The Local Impacts Committee, established as part of the Freight Network Review, has commenced on the following terms of reference:

- *Develop a strategy for managing traffic on the major roads in the south-west metropolitan corridor, focussing on Leach Highway, South Street, High Street and Stock Road; and prepare a preliminary development plan for these roads.*
- *Determine measures to protect local communities from the impact of freight and general traffic.*

The output from this task will be a preliminary prioritised development plan for roads in the south-west metropolitan area.

A list of candidate measures to reduce local traffic and freight impacts will also be produced by the Committee. The measures will include initiatives such as intersection modification, signal modification and removal, advanced amber warning lights, noise mitigation strategy, pedestrian access and speed zone reviews.

### Associated Initiatives

Actions Underway	Benefits	Issues and comments	Agency	Status / Timeframe
Local Impacts Committee Terms of Reference 2: Preliminary Development Plan	Preliminary development plan for improvements for roads in the Local Impacts Committee study area. Some of the major elements are listed below under Other Actions. Others are listed under the <i>Plan Now for the Outer Harbour Step</i> above.	Focus is on one area in the metropolitan area. Other areas may feel their roads should also be examined. Initiatives below will receive detailed examination in their own right as part of LIC <sup>15</sup> processes.	DPI	Work finalised by the end of 2004. Interim outputs will be delivered as the project progresses.
Local Impacts Committee Terms of Reference 3: Measures for Freight & General Traffic Impact Reduction	Documented improvement plan outlining candidate measures. Some of the major elements are listed below under Other Actions. Clear guidelines about when and where to examine treatment opportunities.	Some areas may not qualify for treatments. Some communities might not agree with their priorities or rate of delivery. Communities along Local Government roads may not have access to solutions. Funding availability. Initiatives below will receive detailed	DPI MRWA	Work finalised by the end of 2004. Interim outputs will be delivered as the project progresses.

<sup>15</sup> LIC: Local Impacts Committee, established in the middle of 2002 as part of the Freight Network Review / Strategy.

<b>Other Actions</b>	<b>Benefits</b>	examination in their own right as part of LIC processes.	<b>Issues and comments</b>	<b>Agency</b>	<b>Status / Timeframe</b>
Leach Highway / Orrong Road Intersection	Improved transport efficiency Reduced travel times by grade separating traffic movements currently controlled by traffic signals	Land Acquisition particularly outside of MRS Funding Environmental approvals	MRWA DPI	First Stage Interchange – Subject to funding and approvals construction could start October 2005. Ultimate Interchange – 10-20 years after First Stage Interchange	
<i>Preliminary Development Plan:</i> Leach Highway / Stock Road Intersection	Improved transport efficiency Reduced travel times by grade separating traffic movements currently controlled by traffic signals	Land acquisition and MRS amendment Funding	DPI MRWA	2 ½ years from commencement	
<i>Preliminary Development Plan:</i> Stirling Highway / High Street Intersection	Increased priority to traffic movement between Stirling Highway and High Street/Leach Highway as the designated freight route	Land acquisition and MRS amendment Visual amenity Funding	DPI MRWA	2 years from commencement	
<i>Preliminary Development Plan:</i> Widen Shelley Bridge	Improved transport efficiency by reducing traffic congestion Improved road safety by reducing side swipe and rear end collisions Improved facilities for pedestrians and cyclists	Formal environmental assessment may be required Funding	DPI MRWA	Concept plans and MRS reservation plans complete	
<i>Preliminary Development Plan:</i> Upgrade Stock Road	Will decrease traffic and heavy vehicle demand on other parts of the road network resulting in improved amenity, connectivity and liveability More efficient road freight movement	Increased noise along Stock Road Increased community severance across Stock Road Funding Decreased visual amenity	DPI MRWA	Significant project which will take several years	
<i>Freight &amp; General Traffic Impact Reduction:</i> Left In / Left out Only Intersections	Reduction in crashes and vehicle conflicts.	Access to/from local communities. Concern about longer journeys to/from commercial properties.	DPI MRWA	Review to be completed Mid 2004	
<i>Freight &amp; General Traffic Impact Reduction:</i> Reduce travel signals on major routes.	Reduced travel times on major Highways and routes.	Access to/from local communities. Concern about longer journeys to/from commercial properties. Impact on crash rates. Land availability.	DPI MRWA	Review to be completed Mid 2004	
<i>Freight &amp; General Traffic</i>	Reduction of noise in residential precincts	Criteria to qualify for noise treatment.	DPI	Public Consultation 2 <sup>nd</sup>	

<i>Impact Reduction: Noise Mitigation Strategy</i>	exposed to excessive noise from State roads.	Criteria for ranking qualified areas. Applies only to State roads. Funding for noise treatments.	MRWA	quarter 2004 Strategy completed 3 <sup>rd</sup> quarter 2004
<i>Freight &amp; General Traffic Impact Reduction: Noise mitigation and reduction measures</i>	Reduction of noise in residential precincts exposed to excessive noise from State roads. Greater awareness of transport operators in their responsibilities in mixing with the community.	Some areas will not qualify for treatments. Some communities might not agree with their priority ranking. Some communities might want a faster rate of delivery. Communities along Local Government roads may perceive an inequity. Funding for noise treatments.	DPI MRWA	Identification of hot spots 4 <sup>th</sup> quarter 2004.
<i>Freight &amp; General Traffic Impact Reduction: Advance Amber Warning Signals</i>	Improved safety for freight vehicles and general traffic on major routes. Reduced right angle crashes.	Increased rear end crashes. Impact of flashing signals on adjacent residents. Reduction in fatal crashes involving heavy vehicles but more crashes away from intersections.	DPI MRWA	Review complete mid 2004
<i>Freight &amp; General Traffic Impact Reduction: Speed zone reviews</i>	Reduction in crash severity. Reduction in noise levels. Improved pedestrian safety.	Increased travel time. Compliance problems with artificially imposed speed limit.	DPI MRWA	Review complete Mid 2004
<i>Freight &amp; General Traffic Impact Reduction: Traffic Signal Synchronisation</i>	Improved efficiency for traffic on major routes.	Increased delays for traffic on minor routes. Many traffic signals are already synchronised.	DPI MRWA	Review complete Mid 2004