



SUSTAINABLE TRANSPORT COALITION of WESTERN AUSTRALIA

1st April, 2016

Senator G Sterle
Chair, Rural and Regional Affairs and Transport References Committee

Dear Senator Sterle

Thank you for the opportunity for us to give evidence to the Committee on 23rd March, 2016 and your request for the Sustainable Transport Coalition to provide comment on the Kwinana 'Indian Ocean Gateway' (IOG) proposal.

The limited time and other resources available to us preclude a detailed assessment of the proposal, but we offer the following commentary based on our professional knowledge and experience of transport planning in Perth over the past three decades or more.

Most facts have been obtained from published data and, due to time and resource constraints, have not been separately checked.

Defining the Problem

The basic problem is that the freight handling capacity of Fremantle Inner Harbour is constrained by limitations not only in port capacity itself but in both road and rail access, which go through surrounding residential and commercial areas. The limitations are partly road and rail physical capacity and partly social and environmental concerns by people living and working in affected areas.

Concern about social and environmental impacts is not simply a matter of NIMBYism (Not In My Back Yard). People have chosen to live where they do, in increasing numbers, in the full knowledge that there is a working port, but also knowing that their amenity is protected by the Metropolitan Region Scheme (MRS), which has statutory force. Neither the MRS nor even the most recent strategic plan for the Perth Region (*Perth and Peel @ 3.5 million*, Draft, May 2015) makes any mention of the Perth Freight Link (PFL).

Strategic Context

The strategic premise for the Kwinana IOG proposal is much stronger than that for the Perth Freight Link.

The PFL represents a 'solution' (albeit, at this stage, an incomplete one, as it does not yet reach the port itself) to the limited problem of managing land transport access to the Inner Harbour in the face of continuing increases in container traffic. Whilst parts of the PFL would help provide access to a longer-term Outer Harbour container port, currently-envisaged container traffic growth would still require most of the investment, both port-side and land-side, required for the Kwinana IOG (or any other Outer Harbour) proposal.

At best, the PFL buys a little time, deferring the need for major investment in Outer Harbour container facilities and access, while attempting to manage the congestion, social and environmental effects of a sole focus on the Inner Harbour.

The Kwinana IOG proposal, on the other hand, provides an opportunity to address the more fundamental and longer-term issue of handling continuing increases in container traffic to and from Western Australia – beyond the capacity of the existing Inner Harbour.

Building the PFL would create a tension in public policy as the heavy investment in it would create pressure to maximise its short-term value by focusing on the Inner Harbour, to the detriment of meeting longer-term needs, which can only be done by an Outer Harbour container facility.

Risk Management

By deferring consideration of and justification for an Outer Harbour container facility, the PFL continues the risks associated with a single provider, whether publicly- or privately-owned/operated. These risks include:

- Problems affecting marine access to the Inner Harbour;
- Problems affecting land-side transport and access – for example, interruptions to supply of oil-based fuels for road transport, coupled with the limited rail access capacity to the Inner Harbour.

The rail access itself is vulnerable to damage and interruption in severe weather, as occurred when a cargo ship broke its moorings in June 2014¹, and, being effectively a single track line for 12km or so (as far as the Yangebup triangle), from derailment or operational problems.

- Short-term spikes in demand, which result in substantial demurrage costs for shippers and ship-owners. Such spikes in demand can, themselves, result from severe weather conditions affecting shipping.

The Kwinana IOG, by providing an alternative container access path, provides greater flexibility in the event of problems arising with the Inner Harbour or with land transport access.

Landside Access

As noted above, rail access to the Inner Harbour is restricted by the location, vulnerability and limited capacity of the existing rail bridge. In addition, double-stacking of containers on rail wagons is not feasible because of the overhead wires for the suburban passenger service that uses the same track.

The Kwinana IOG provides greater and more usable rail access, linking into existing tracks.

For road access, the upgrading of Anketell and Rowley Roads across to Tonkin Highway would severely reduce any advantage provided by Roe 8 for accessing the Outer Harbour. Road access from much of the Metropolitan Area and beyond would be on Controlled-Access or Freeway standard roads, making for more efficient truck operation and lower impacts on residential communities.

Economic Assessment

With the limited time and resources available, it has not been possible to undertake a specific economic or financial assessment of either the PFL (with which Infrastructure Australia struggled, given incomplete project specification, the limited range of options developed and lack of information from the WA Government) or the IOG proposal. We are however, able to make some observations on the relative economic merits of the PFL and IOG proposals:

¹ Storm: Ship hits Fremantle rail bridge. <http://www.perthnow.com.au/news/western-australia/storm-ship-hits-fremantle-rail-bridge-20000-homes-blacked-out/news-story/a44b2a8408148a67fa9cc042a8ce5dc0>

1. The cost of Stage 1 of the IOG is similar to that of the PFL.
2. The benefits of the PFL are largely limited to Inner Harbour container trade and will diminish substantially when the Outer Harbour (OH) container terminal is operational, as congestion-relief would then be via the OH rather than by capacity to access the Inner Harbour.
3. Benefits of the IOG would include more efficient operation of the Inner Harbour, and less congestion in and around it.
4. If the IOG Stage 1 can be completed in less than 10 years (ie by 2025), as suggested by the City of Kwinana, compared to the PFL possible completion by, say, 2020, there would be an additional 5 years before the benefits flow, but these are precisely the years in which the benefits are, in any case, least.²
5. Competition between Inner and Outer Harbour container terminals could reduce charges and costs to WA importers and exporters.

Conclusion

It is not possible to conclusively recommend either solution A or solution B because of the time and resource constraint on us and issues yet to be resolved.

However, **it is possible to unequivocally state that the Kwinana IOG should be investigated further.** It has the potential to improve both the Fremantle and Kwinana areas and appears to have significant community and stakeholder support, at least in its initial form. It also provides greater flexibility and improved risk management for WA's international trade.

We recommend that the State Government and Opposition carry out this investigation in a bipartisan way³. Both sides of Government have been lacking in orderly planning for the Port and its access. For example, one side left a gap in freight access to the Port following deletion of FEB that has created uncertainty. The other side has not been transparent in its current planning and has still not yet demonstrated that the gap can be bridged. This is an opportunity for both sides to show leadership in achieving what will be best for the long-term future of the Inner and Outer Harbours and their hinterlands, based on transparent and objective assessment, including full stakeholder and community engagement.

Ian Ker, Convenor, Sustainable Transport Coalition of WA.

David Rice, Secretary, Sustainable Transport Coalition of WA.

² Assuming benefits grow at the rate of container trade growth (3.6%pa) and using WA Treasury-specified discount rate (7%pa), 25% of the present value of benefits accrues in the first five years of a 30-year evaluation. At a more internationally-accepted discount rate (3%pa), 15% of benefit value accrues in the first five years.

³ Some might say this is a naïve recommendation, but this is a key issue for the economy of the State, for the future of Fremantle and Kwinana, and for community trust. It needs to be beyond party politics to provide certainty for business, trade and the community.

Attachment: Comparative Review of Indian Ocean Gateway and Perth Freight Link.

Background

When giving evidence, on behalf of the Sustainable Transport Coalition of WA, to the Senate Inquiry on Federal Funding of the Perth Freight Link on 23 March 2016, Ian Ker (Convenor) and David Rice (Secretary) were asked to prepare a short report on the City of Kwinana's "Indian Ocean Gateway" proposal⁴.

This report has been prepared in a voluntary capacity at short notice and is purely the opinions of the two authors based on limited time and resources. Most facts have been obtained from published data and, due to time and resource constraints, have not been separately checked. Nevertheless, both of the authors have had at least two decades of transport planning experience in Perth so their opinions may be taken as reasonably informed and not politically aligned.

What is the Problem?

The basic problem is that the freight handling capacity of Fremantle Inner Harbour is constrained by limitations in both road and rail access, access that goes through surrounding residential and commercial areas. The limitations are partly road and rail physical capacity and partly social and environmental concerns by people living and working in surrounding areas.

The Inner Harbour generates a large amount of heavy truck traffic: mainly container trucks, but also sheep trucks and car movers. Most, probably at least 80%, of this traffic is to the south. Efforts have been made to reduce the number of container trucks by moving more by rail but there are two limitations.

The first is that, even by taking containers by rail to the Kewdale 'inland port' and then distributing them by truck (which requires double handling), many of the containers are not bound to areas around Kewdale, so the need is to send most containers directly by truck from the Inner Harbour.

The second is that the freight rail passes along the Fremantle foreshore, so severs a key part of Fremantle from the beach. Increasing rail traffic increases this severance.

Bi-partisan long term planning was, until recently, that the through-put of the Inner Harbor should be capped at a 'reasonable' level and that the Outer Harbour should then be built to take the overflow.

The Outer Harbour is much better placed to cope with heavy freight traffic than the Inner Harbour because it is mainly surrounded by industrial areas where community expectations are different. This is illustrated by Attachment 1, for the southern part of the Metropolitan Area, which shows the large volume of freight flowing through the Outer Harbour with little community concern compared to the relatively small amount of freight volume through the Inner Harbour with significant and growing community concern. Attachment 2, for the northern part of the Metropolitan Area, is included for completeness. While the information on these attachments is dated it still clearly illustrates the point. To the best of our knowledge this information has not been updated.

⁴ Indian Ocean Gateway, Consultative Draft, August 2015

Proposed 'Solutions'

A. Perth Freight Link

Rather unexpectedly (19th May, 2014) the Federal Government offered \$925 million to help the State to build a Perth Freight Link (PFL)⁵. The PFL would significantly increase the road infrastructure capacity through the southern suburbs and part way to the Inner Harbour. It would increase the road capacity to south of the Swan River. The route for the PFL has not yet been established. The PFL incorporates two sections.

Let us call the first section A1: this is Roe Hwy Stage 8 which runs through the Beelihar Wetlands to extend Roe Hwy west to Stock Rd. This is to Freeway standard

Let us call the second section A2: would link Roe 8 to Stirling Hwy at Marmion St, which is well south of the Stirling Bridge. Section A2 may be substantial widening of Stock Rd and High St, or it may be mainly in a tunnel under Beaconsfield. Section A2 would be to freeway standard.

Logically there needs to be a section A3: a freeway or near freeway standard extension up Stirling Hwy, over the river (the Stirling Bridge) and through North Fremantle to the Inner Harbour. No plans have been made publically available for section A3 other than a very long-standing allowance in the Metropolitan Region Scheme (MRS) for the duplication of Stirling Bridge.

The total cost of the PFL is not known but will be high. Sections A1 and A2 have been recently reported as \$1.8 billion if A2 includes a tunnel. No costs are available for section A3.

B. Indian Ocean Gateway

The City of Kwinana has produced a concept plan called Indian Ocean Gateway (IOG) that is an updated version of the previous plans for the Outer Harbour. Outer Harbour planning had apparently had bi-partisan political support until the Perth Freight Link appeared.

The IOG envisages port facilities on reclaimed land parallel to the existing coastline, and joined to that coast. It incorporates both road and rail access directly to the port, so containers and other cargo may be unloaded directly onto either road or rail, so eliminating the need for the Latitude 32 transfer facility and improving freight handling efficiency significantly. East-west road access would be via both Rowley Rd and Anketell Rd. Reservations⁶ for these roads to urban arterial standard (4 lane divided road with some grade separations and some at-grade intersections) are in place as far as Kwinana Freeway. East of Kwinana Freeway, Metropolitan Region Scheme amendments would be required to make IOG fully operational.

Two stages are proposed for the port, Stage 1 between Anketell Rd and Rowley Rd, with Stage 2 being north of Rowley Rd and linking to the Australian Marine Complex, so allowing it to expand in future.

The idea is that Stage 1 would become operational in 2025, by which time the Inner Harbour is likely to reach its capacity of 1 million TEUs^{7,8}. The IOG would immediately take half these

⁵ 'Perth Freight Link a boost for WA industry'. Media Statement.
<https://www.mediastatements.wa.gov.au/Pages/Barnett/2014/05/Perth-Freight-Link-a-boost-for-WA-industry.aspx>

⁶ Reservations as Planning Control Areas, but not yet as red or blue roads in the MRS

⁷ The capacity of the Inner Harbour is subject to some uncertainty, with the Port of Fremantle (2014 Annual Report) indicating it could be as high as 1.4 million TEU. In any case, its capacity is not independent of the landside access (road and rail) capacities.

⁸ TEU stands for Twenty Foot Equivalent Unit. Standard containers are either 20-foot (6.1 metre) or 40-foot (12.2 metre) units.

containers. The ultimate idea is for IOG to take all the containers, sheep and car freight, and leave the Inner Harbour for cruise and Navy ships and for significant areas to be redeveloped to high value commercial and residential uses.

The cost of Stage 1 is estimated at \$2 billion. This includes construction of the new land backed harbour, duplication of the existing freight rail to the north of IOG plus a new section of rail directly along the new harbour. It also includes Construction of Rowley Rd and Anketell Rd to freeway standard as far as Kwinana Freewy. Private funding is expected to be attracted.

The cost of Stage 2 is estimated at \$1.2 billion. This includes stage 2 of the land backed harbour, construction of Rowley Rd from Kwinana Freeway to Tonkin Hwy, and construction of the Fremantle Rockingham Highway (north-south).

The industrial hinterland is over 6,000 Ha, of which only 2,250 Ha are currently utilised, so there is ample opportunity for expansion, including new support industries.

Advantages and Disadvantages of Solution A

Advantages

1. Sections A1 and A2 are what the State and Federal Governments currently propose.
2. Section A1 (Roe 8) would be a logical extension of the Roe Hwy freight route through to the Stock Rd freight route, which would be useful in servicing both the Inner and Outer Harbours. That is, it could be useful for solution B as well as solution A.
3. If contracts can be let soon to build all, or parts, of solution A then tendered prices will be low, because the construction industry is short of work after the end of the mining boom.
4. There is a proposal to charge heavy trucks for using the PFL and so get back some of its construction costs.
5. At the time of writing the sale of the Port appears to be on hold, given lack of agreement within the coalition State Government. This is seen as an advantage because it could buy time to reconsider the whole PFL/Inner/Outer Harbour nexus. But this could change.

Disadvantages

1. Section A1 runs through the Beelihar chain of wetlands. This is always going to be environmentally contentious because these wetlands are an important part of the metropolitan areas' environmental heritage. Bridges over the wetlands are proposed but bridges wide enough to carry a freeway always create shadow. The existing wetland vegetation has evolved in full sun and will not grow in shadow, hence causing at least a partial break in the continuity of the wetlands. Normally this would be 'offset'. That is, an equivalent area of wetland elsewhere would be protected as part of this project, however, it is understood that no equivalent area of wetlands could be found, so the project proponents have made arrangements to 'offset' the wetland impacts by safeguarding areas of coastal dunes. We understand that this has been technically accepted by the environmental protection authorities, but there is understandable community concern that this is not 'like for like'.
2. The community has successfully legally challenged the environmental approval of section A1, so its future is uncertain.
3. The alignment and type of construction for section A2 is not decided, although it has been reported that the state road authority prefers the tunnel.

4. Major amendments to the MRS or a separate Act of Parliament would be required.

The tunnel option for section A2 would link the western end of Roe 8 to Stirling Hwy. The link that originally filled this function was Fremantle Eastern Bypass (FEB), which was formally and very publically deleted from the MRS some years ago. Section A2 is not in the MRS. While there might be technical ways for the state road authority to build section A2 without it being in the MRS, this could be seen as going against fundamental WA planning principles in order to avoid the process of an MRS amendment and its statutory public comment mechanism.

5. There is no practical information about section A3.
6. The proposal to charge trucks for using the PFL, when the aim is to encourage them to use the PFL, is perverse logic. It would be more logical, more transparent, to charge them for using alternative routes, routes on which they create more social problems. Not only would this be better logic for the PFL, it would also sit better in any future Metropolitan wide heavy vehicle charging scheme.
7. Because solution A will be expensive, and because the State budget is not in a position to meet the cost of several road access options, it has been concluded by many in the community that, should the Government go ahead with solution A then it will not be able to afford alternative Port options for many years. This implies continuing expansion of the Inner Harbour beyond the 'reasonable' level at which the Inner Harbour should be capped, and hence significantly more road and rail traffic through sensitive urban areas.
8. This is compounded by the proposed sale of the Fremantle Port to partially offset State debt. The expectation is that, if the Port is sold to private operators, they will want to maximize the profits from their investment by continuing to operate the Inner Harbour beyond the previously expected 'reasonable' maximum of around 1.0 million TEUs.
9. There is strong community backlash against solution A: namely, "Rethink the Link"
10. Many of the specifics of solution A are not being made public. For example, it is understood that 12 alternatives for section A2 have been investigated but details of only one alternative have been made public, and then only partly. This contravenes Engineers Australia's code of Ethics⁹ that requires, as it's fourth tenet, members to "Promote Sustainability". This includes "Engage responsibly with the community and other stakeholders" – "promote the involvement of all stakeholders and the community in decisions and processes that impact on them and the environment". It also includes "Balance the needs of the present with the needs of future generations" – "in identifying sustainable outcomes consider all options in terms of their economic, environmental and social consequences".
11. It is not possible to do a proper economic assessment of solution A, because the total cost of solution A is still unknown, even approximately.
12. Letting contracts to build solution A, in full or in part, before they have been agreed, at least in detailed concept form, is very likely to lead to claims for extras from contractors, or litigation, or both.
13. Solution A only addresses road access. It does not address rail access. Freight rail will continue to partially sever Fremantle from the beach and the popular Fishing Boat Harbour.

⁹ <https://www.engineersaustralia.org.au/sites/default/files/shado/About%20Us/Overview/Governance/codeofethics2010.pdf>

Advantages and Disadvantages of Solution B

Advantages

1. An innovative revamp of old plans for the Outer Harbour
2. Should reduce congestion caused by heavy trucks in the Inner Harbour vicinity
3. Improved freight handling efficiency compared to the existing Inner Harbour
4. Provides space to expand Outer Harbour related industries substantially. The IOG proponents estimate direct employment could triple, plus generate indirect employment for almost 50,000 people, at full build.
5. The IOG proponents estimate at full build the annual revenue would be around \$42 billion with flow on effects of around \$28 billion.
6. Stakeholder consultation has taken place with 60 key organisations and further consultation is planned
7. The Rethink the Link advocates are generally in favour of an option such as IOG
8. Potentially allows high value redevelopment at the Inner Harbour

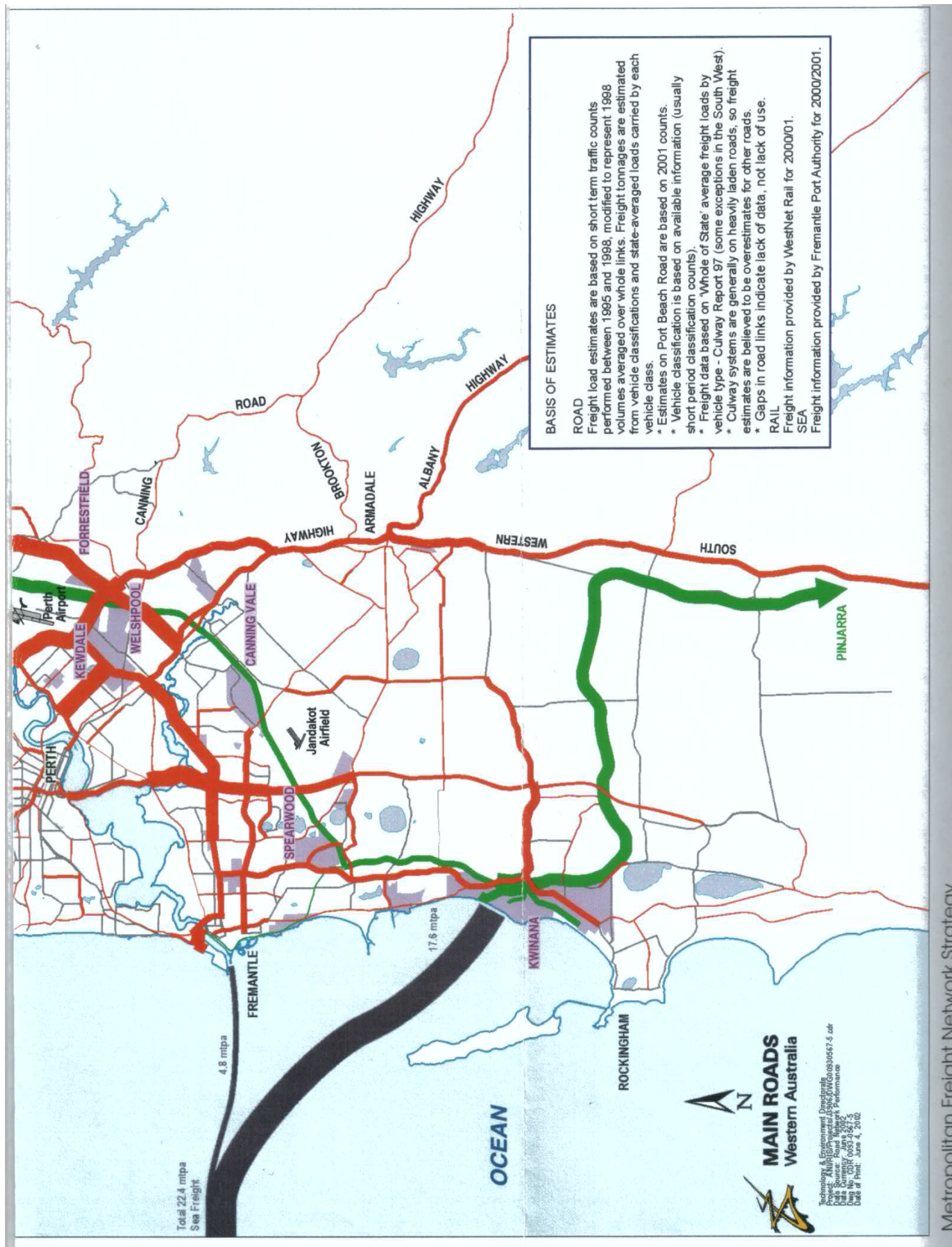
Disadvantages

1. The City of Fremantle may not be supportive of an ultimate transfer of all freight to the Outer Harbour because of their desire to retain the atmosphere of a working port. This may not be a preventative factor since it might be possible to have the IOG together with the Inner Harbour operating at, say, 0.5 million TEUs. Follow up is needed.
2. Environmental assessment and approval is still required. A Preliminary Environmental Report¹⁰ lists what is expected to be required. The marine and land environment need detailed consideration. This is normal procedure and should not be seen as a preventative factor, rather one that needs substantial follow up including full community and stakeholder consultation.
3. Some MRS amendments will be required. This is normal procedure and should not be seen as a preventative factor, rather one that needs substantial follow up including full community and stakeholder consultation.

¹⁰ Preliminary Environmental Report for City of Kwinana, 360 Environmental, November 2015

Attachment 1: Freight volumes carried by different modes in 2001 Southern Metropolitan Area

Note 4.8 million tonnes by sea through the Inner Harbour and 17.8 million tonnes through the Outer Harbour



Source: Freight Network Review, Second Congress, June 2002.

Road tonnages are estimates. Rail tonnages provided by WestNet Rail for 2000/01. Sea tonnages provided by Fremantle Port Authority for 2000/01.

**Attachment 2: Freight volumes carried by different modes in 2001
Northern Metropolitan Area**



Source: as for Figure 1