

T15/3645 – PERTH FREIGHT LINK PREFERRED ROUTE ALIGNMENT (REC)

Ward : All
 Category : Strategic
 Subject Index : Roe Highway
 Customer Index : Main Roads WA
 Disclosure of any Interest : No Officer involved in the preparation of this report has a declarable interest in this matter.
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 Responsible Officer : John Christie
 Director Technical Services

AUTHORITY / DISCRETION

DEFINITION

<input checked="" type="checkbox"/>	Advocacy	<i>When the Council advocates on its own behalf or on behalf of its community to another level of government/body/agency.</i>
<input type="checkbox"/>	Executive	<i>The substantial direction setting and oversight role of the Council. e.g. adopting plans and reports, accepting tenders, directing operations, setting and amending budgets.</i>
<input type="checkbox"/>	Legislative	<i>Includes adopting local laws, town planning schemes & policies.</i>
<input type="checkbox"/>	Review	<i>When the Council operates as a review authority on decisions made by Officers for appeal purposes.</i>
<input type="checkbox"/>	Quasi-Judicial	<i>When the Council determines an application/matter that directly affects a person's right and interests. The judicial character arises from the obligation to abide by the principles of natural justice. Examples of Quasi-Judicial authority include town planning applications, building licences, applications for other permits/licences (eg under Health Act, Dog Act or Local Laws) and other decisions that may be appealable to the State Administrative Tribunal.</i>
<input type="checkbox"/>	Information	<i>For the Council/Committee to note.</i>

T15/3645 – PERTH FREIGHT LINK PREFERRED ROUTE ALIGNMENT (REC)**KEY ISSUES / SUMMARY**

- The City has for a number of years supported the extension of Roe Highway as part of the Perth Freight Link between the Kwinana Freeway and the Port of Fremantle.
- Roe Highway was first gazetted as part of the Metropolitan Region Scheme (MRS) in 1963 and formed part of the Metropolitan ring road system, its origin can be traced back to the *“Plan for the Metropolitan Region, Perth and Fremantle, Western Australia, 1955”* more commonly known as the *“Stephenson and Hepburn Report 1955”*
- The deletion of part of the Fremantle Eastern Bypass from the MRS in 2004 has resulted in the Kwinana Freeway, Leach Highway and High Street being the only direct access for freight to the Port of Fremantle. Leach Highway in Melville and High Street in Fremantle were never designed to perform as a freight route to Fremantle Port.
- The purpose of the regional road network in the MRS is to provide efficient high speed transport corridors across and around the Metropolitan region, located and designed to provide for the future growth and development of Perth as a capital city.
- The Port of Fremantle currently processes between 700,000 and 750,000 Twenty Foot Equivalent Units Containers (TEU’s) per annum and growth projections indicate that the Inner Harbour has capacity to process greater than 1.4 million by 2027.
- There is an aspirational target for the Port to transport 30% of TEU’s by rail; currently the actual figure transported by rail is approximately 15%. Current restrictions placed on Fremantle Port for rail access make this 30% target challenging for the future, particularly when considering the future growth in TEU’s and that 97% of freight movements are in the metropolitan area.
- The City of Fremantle has a preference to maintain a working port in the City of Fremantle and future projections indicate that the Port of Fremantle will continue to operate as a working port after the construction of an outer harbour in Cockburn Sound.
- The current freight route between the Kwinana Freeway and Fremantle Port poses serious safety concerns with the crash rates significantly higher than other roads within the metropolitan area.
- There is an identified need to complete the Roe Highway Metropolitan ring road system as part of the Perth Freight Link Project, to provide a robust regional transportation network to serve the southern suburbs of Perth into the future.
- There is an identified need to create a dedicated high speed, efficient and accessible highway to meet the needs of Fremantle Port, the eastern and southern metropolitan industrial areas Perth and Jandakot Airports, the Murdoch Activity Centre, Fremantle and the Cockburn Coast.

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- The proposed Main Roads Western Australia (MRWA) Option 1, Section 2 is sub-optimal and will impact on 46 residential and 26 commercial properties and is not considered to be the best outcome for the community, the long term operation of the Perth Freight Link, the Southern Metropolitan Region and Fremantle Port.
- The proposed MRWA Option 1, Section 1 (Roe 8) between Kwinana Freeway and Stock Road has received conditional approval from the EPA, the State Minister for Environment and is awaiting Federal approval from the Minister for the Environment.
- The conditional approval from the EPA recognised that MRWA had adequately considered the key environmental factors and recognised the regionally significant environmental values of the area. MRWA were commended for their approach to innovative construction methods and has set a new standard for major road projects in this type of sensitive environment.
- There is a concern that if the Roe Highway is not extended as planned, traffic congestion and associated transportation issues within the southern suburbs of Perth will get worse, access to the port will be adversely impacted and the opportunity for resolving and enhancing the regional road network south of Perth could be lost.
- This report recommends that the Council:

Reconfirm its support for the extension of Roe Highway between the Kwinana Freeway and Stock Road in accordance with the plans adopted by Main Roads Western Australia to finalise the Perth Freight Link.

Request Main Roads Western Australia approach the construction of the Roe Highway extension for that section within the Beeliar Regional Park, in such a way as to minimise any potential adverse environmental impacts on the Park, by ensuring the maximum protection of the flora and fauna, the wetlands and the amenity of the area, together with maintaining and enhancing public accessibility of this regionally important asset.

Reiterate its support for extending the Roe Highway, west of Stock Road to Stirling Highway, utilising the alignment of the Fremantle Eastern Bypass for the Perth Freight Link.

Advise the State Government that in order to minimise the potential impact of utilising the Fremantle Eastern Bypass alignment for the Perth Freight Link, all or part of the route between Clontarf Hill and Stirling Highway should be tunnelled if possible.

T15/3645 – PERTH FREIGHT LINK PREFERRED ROUTE ALIGNMENT (REC)**BACKGROUND**

At the Ordinary Council meeting of 16 June 2015 the Council resolved as follows:

“That the Council:

1. *Requests the Chief Executive Officer prepare a report to be presented to the earliest possible Council meeting which identifies the City's preferred alignment of the proposed Perth Freight Link with specific consideration to:*
 - a) *Acknowledging the environmental sensitivity shown in selecting, within the boundaries of the road reservation set aside in the Metropolitan Regional Scheme, the proposed alignment of Roe 7 Extension between the lakes and through to Stock Road and the use of minimally intrusive engineering techniques to protect wetland areas and the proposed environmental offsets to be provided and;*
 - b) *The reaffirmation of the City's support for the construction of the extension of Roe Highway from Stock Rd through to Stirling Bridge along the former Fremantle Eastern Bypass alignment, as currently under consideration by the State Government, as the alignment which provides minimum residential, commercial and social impact on the communities of Melville, Fremantle and East Fremantle whilst providing the most efficient link in the transport network.*
2. *Further the Chief Executive Officer will consider preparing a letter from the Mayor, acknowledging the support of: Hon Tony Abbott the Prime Minister of Australia; Hon Colin Barnett the Premier of Western Australia; Hon Matthias Cormann the Federal Minister for Finance; Hon Dean Nalder the Minister for Transport; Hon Mike Nahan the Treasurer of the State of Western Australia; and all other members of the Cabinet of the State Government of Western Australia and local State Government representatives in providing the funding package for the construction of the Perth Freight Link and expressing the City's desire for the construction to proceed at the earliest possible occasion with the eastern sections of Perth Freight Link (i.e. ROE8) to bring relief from the increasing impacts of heavy traffic congestion in the South West region on road users, residents, business operators and the economy.*
3. *Request the Chief Executive Officer to obtain Traffic modelling from Main Roads on Section 2 of the current planned route to the City and the residents of the City of Melville by July Ordinary Council Meeting 2015.*

At 9.16pm the Presiding Member submitted the substantive motion, as amended was declared

CARRIED (7/3)”

T15/3645 – PERTH FREIGHT LINK PREFERRED ROUTE ALIGNMENT (REC)**Roe Highway and the Metropolitan Regional Scheme**

Roe Highway was first gazetted as part of the Metropolitan Region Scheme (MRS) in 1963 and formed part of the Metropolitan ring road system. The ring road links the northern and southern suburbs and the activity centres of Midland, Kewdale, Canning Vale, Murdoch and Fremantle. Over the past 50 years the metropolitan population has grown by 1.6 million people, to just over 2 million and this growth has put pressure on the roads serving Perth. The population within Metropolitan Perth is expected to grow from 2 million to 3.5 million by 2050, thus placing even greater strain on an already stressed regional road network.

Due to the commitment by successive governments to the implementation of the regional road plan in accordance with the MRS, Perth currently enjoys the benefits of a logical, well connected and robust road network. Nevertheless, some parts of the regional road network are reaching capacity and there has been a drop in the level of service on major Primary Distributor roads, such as the Kwinana Freeway, Tonkin Highway and Roe Highway. The forecast increase in population will place additional strain on this regional road network and both the current and previous State Governments have been cognisant of this.

The purpose of the regional road network in the MRS is to provide efficient high speed transport corridors across and around the Metropolitan region, located and designed to provide for the future growth and development of Perth as a capital city.

Roe Highway is designated as part of the State Route system and intersects with the Great Northern (National Highway No. 95), Great Eastern (National Highway No. 94), Tonkin and Albany Highways and the Kwinana Freeway. The road is seen as a national road of significance, hence the national funding contribution from the Federal Government.

The initial section of the Roe Highway was opened in 1983. The most recent section of Roe Highway to be completed, between South Street and the Kwinana Freeway was completed in 2006.

Following this, MRWA mandated that container trucks and trucks over 19m long use Roe Highway, Kwinana Freeway and Leach Highway to access Fremantle Port. This was to reduce truck traffic using Canning Highway, Leach Highway (east of the Kwinana Freeway) and South Street. This demonstrates that MRWA recognises the benefits of using dedicated roads to move freight in the interests of the transportation industry, road safety and the community.

However, the use of a short section of the Kwinana Freeway, between Roe Highway and Leach Highway, a distance of only 4.1kms, as part of the designated freight route serving Fremantle Port, is undesirable and does not represent best operating practice. Conflicts between passenger vehicles and freight are exacerbated at on and off ramps due to merging issues and on occasion can create significant safety hazards for road users and in the context of road safety, this is less than favourable.

The extension of Roe Highway from Kwinana Freeway to Fremantle Port remains the missing link in the regional road plan, a distance of approximately 13.4kms and once complete, the Perth Freight Link will provide a free flowing link from Muchea to Fremantle, a distance of 85kms. By completing the link to Fremantle Port, it will provide for the following:

- Future growth in freight traffic accessing the port.
- Improve access to essential State and Private hospital infrastructure.

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- Increased projections in population growth.
- Reduce freight traffic on mixed-use routes.
- Increase freight efficiency and productivity.
- Increased public safety and local access and amenity.
- Facilitate economic growth of the South West Metropolitan Region.

Recent modelling undertaken by MRWA has shown that without the completion of the Perth Freight Link to Fremantle Port, there will be capacity issues at several locations by 2020 on the current route. This will inevitably result in increased congestion, a reduced level of service and an increase in safety issues.

Perth Freight Link and the City of Fremantle

The significance of Fremantle Port to the City of Fremantle is captured, in their minutes from their Strategic and General Services Committee dated 17 June 2015. The following statement is contained in the background of the report and states as follows with regards to the retention of Fremantle Port:

The City of Fremantle's vision for the future of Fremantle includes the retention of the Fremantle inner harbour as a working port.

The minutes of their Strategic and General Services Committee dated 17 June 2015 further acknowledge the future growth of Fremantle Port as follows:

It is understood that the inner harbour has the capacity to grow that container trade (based on current technology and operational methods) to around 1.4 million TEU's, or by a factor of two.....

Whenever that point is reached (and realistically, before that point is reached) there must be an alternative freight option in place and operational, otherwise the economy of Perth will be severely impacted.

The above extracts from the City of Fremantle's Strategic and General Services Committee shows that the City of Fremantle are aware of the future growth of Fremantle Port's inner harbour and despite that growth potential, the City of Fremantle acknowledges the importance of retaining a working port.

The City of Fremantle along with the City of Melville and the State Government recognise the importance of Fremantle Port to the State's economy and the vibrancy of Fremantle and all appear to be in agreement that an alternative freight option is required. Without an alternative the capacity and the operational efficiency of Fremantle Port will continue to be constrained by the current freight route.

Perth Freight Link Options

MRWA is committed to exploring all Perth Freight Link route options to deliver the best outcome for all road users, the community and taxpayers (*Perth Freight Link Information Sheet May 2015*).

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Feasibility studies currently being investigated by MRWA include:

Option 1 (Base Case) – *The extension of Roe Highway (Stage 8) to just west of Coolbellup Avenue and upgrades to Stock Road, Leach Highway, High Street and Stirling Highway.*

Option 2 – *The extension of Roe Highway west to Stock Road along the Roe Highway road reserve in Hamilton Hill. It then heads north as a tunnel starting just before Clontarf Hill and running underground to join Stirling Highway near High Street.*

It is expected that the cost of completing this regionally significant freight link to Fremantle Port will be in the order of \$1.6 billion and these funds have been committed by the Federal and State Governments. This will complement and justify the funds already expended to date to deliver the majority of the 70km Reid/Roe Highway ring road system (a cost of some \$3.7 billion to date).

Based on the May 2015 *Information Sheet* the Perth Freight Link will finalise the “missing link” in Perth’s urban transport network and will connect into the “Gateway Project”, being constructed at Perth Airport at a cost of approximately \$1 billion. This will deliver a free-flowing freight route from Muchea to Fremantle Port.

The May 2015 *Information Sheet* also states that the completion of the Perth Freight link will achieve safety, efficiency and environmental benefits by:

- Removing an estimated 500 trucks per day from Leach Highway by 2031.
- Creating shorter journey times, minimising congestion and introducing free flowing traffic.
- Reducing operating costs for the freight industry.
- Reducing exhaust emissions and noise levels.
- Purchasing in excess of 400ha of native vegetation as an environmental off-set.
- Result in carbon emission savings of 450,000 tons of Co2 by 2031.

The economic projections contained in the *Perth Freight Link Website*, states:

- That for every dollar invested in the project the return is \$2.80 to the State. Delivering a return to the State of around \$3.9 billion; and
- Enabling better road access for residents and businesses in the southern suburbs of Perth, together with improved access to the Fremantle Inner Port and the outer harbour planned for Cockburn Sound.

The Federal Government and Infrastructure Australia have determined that Metropolitan Container Ports should be linked into the National Highway Network. The project to extend Roe Highway to Fremantle Inner Harbour is funded by the Federal and State Governments to achieve this national objective.

While Roe Highway terminates at the Kwinana Freeway the road reservation for the highway between the Freeway and Clontarf Hill remains in the MRS. This allows the potential for the westward extension of the highway to be implemented. It is anticipated that 5,000 heavy vehicles per day will use the Perth Freight Link by 2031. This does not include the additional heavy vehicles that will be generated by the operation of the planned outer harbour and associated industrial areas on the Cockburn and Kwinana coasts.

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Currently MRWA is investigating the Fremantle Eastern Bypass route to create for a more direct and free flowing freight connection between Perth's major industrial areas, including Kewdale, Welshpool, Canning Vale and Fremantle Port.

The corridor under review will complete the remaining 13.4kms of the Reid Highway/Roe Highway ring road system. The remaining distance is made up of 5.2kms to extend Roe Highway to Stock Road and 8.2kms to upgrade the Stock Road, Leach Highway and High Street connection. According to MRWA, the works are planned to be completed by 2019.

As a result of investigations by MRWA into its Base Case Option 1 proposed to follow Stock Road, Leach Highway and High Street, residents have become concerned about the likely impact this could have on their property, amenity, and convenience and business owners are concerned about the impact this option could have on their businesses, particularly, the loss of passing trade and customer accessibility.

Of the 72 properties currently affected by the Section 2 concept design, 46 are residential; these include 20 properties in Palmyra, 21 in Willagee and 5 others in other locations of Hamilton Hill and Fremantle. The remainder, 26, are commercial properties, all but one of these commercial properties are located on Stock Road and the corner of Stock Road and Leach Highway, the other is located on the corner of Carrington Street and High Street.

MRWA have stated that these properties could be impacted to varying degrees, from full acquisition, to minor land take, to changes in access. Specific impacts for some properties may not be confirmed until more detailed designs have been developed.

Nevertheless, based on the information currently available, the City believes that Option 1 is sub-optimal and does not deliver the best community or transportation outcome.

The City is firmly of the view that Option 2 with a tunnel under the Fremantle Eastern Bypass alignment is the best outcome for the community, the long term operation of the Perth Freight Link and Fremantle Port.

DETAIL**The Road System**

In October 2009, MRWA engaged consultants, GHD and Meyrick, to undertake a strategic review of the Roe Highway extension. The review found that:

- Congestion in the study area was already a significant problem.
- Without the Roe Highway extension freight traffic would have no option but to use Leach Highway and South Street to service Fremantle Port.
- Road intersections would experience reduced levels of service.
- The existing road network was inadequate for heavy vehicle movements.
- The network provides inadequate east-west connections.
- Some of the district suburban roads would reach capacity and traffic volumes in the locality would increase.

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The report concluded that the Roe Highway extension would:

- Be very effective in attracting heavy vehicles from existing parallel roads, namely Leach Highway and South Street.
- Reduce traffic on critical intersections on Leach Highway and South Street.
- By 2031, attract 79,000 vehicles per day in that section of Roe Highway east of North Lake Road.
- Reduce travel times and transport costs.
- Pose some risk of environment degradation to the Beeliar Regional Park, but this could be minimised by sophisticated planning and construction solutions, but could add significant additional cost for this section of the highway.

Road Safety and Increased Freight on Urban Routes

Statistics provided by MRWA has shown the freight movements on the current freight route of Roe Highway, Kwinana Freeway and Leach Highway to be above the metropolitan average for urban routes. The metropolitan average of freight truck movements on urban routes is 7%; however Leach Highway is currently at 11.5%. Leach Highway was never designed to cater for this volume of freight movements and as a result, this brings with it a significant safety issue for other road users.

The statistics provided by MRWA also show that road safety is a major concern. The metropolitan average of crashes involving heavy vehicles is 5.4%; however the section of Leach Highway, between Kwinana Freeway and Stock Road is 11.1%. The most significant area of safety concerns is at the intersection of Roe Highway with Kwinana Freeway where the crash rate involving heavy vehicles is a staggering 31%; this is 25.6% or six times higher than the metropolitan average and simply not acceptable from a road safety perspective.

Of those percentages, 72% of crashes involving heavy vehicles are rear-end crashes; this is caused by the stop-start nature of heavy vehicles on already congested urban routes and having to negotiate 14 sets of traffic lights between Kwinana Freeway and Fremantle Port on the current route. With the projected increase in freight movements as the capacity of the inner harbour increases, it is clear that the road safety hazard and the frequency of crashes will also increase.

This is exacerbated further when one considers the future growth in motor vehicle registrations, there has been a 17% increase in motor vehicles registrations between 2009 and 2014 resulting in 2.1m vehicles on the road network. This is forecast to increase to 3.1 million by 2020, which will further add to safety concerns and congestion across the metropolitan road network.

MRWA have identified as part of the *Perth Freight Link Business Case Summary*, that once constructed the Perth Freight Link is expected to result in \$164 million in safety benefits.

It is clearly evident that an alternative route for the movement of heavy vehicles accessing the port needs to be constructed as an immediate priority.

Fremantle Inner Port

The Fremantle Port Inner Harbour represents around 90% of all the value of maritime imports into WA, and almost 30% of all exports. In 2014/15 the Port's total revenue was around \$210 million and the value of trade through the Port in that year was more than \$30 billion.

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Based on the Fremantle Port's *Statement of Corporate Intent 2014-2015*, it intends to explore opportunities for greater private sector involvement in the Port's operations. And depending on how this eventuates, it could cause the scope of activities at the Port to change and/or intensify. This could increase the need for reliable and robust transport connections to facilitate any new business initiatives. Expressions of interest from the private sector will close in 2015 with a view to finalising any arrangements, such as leases by 2016.

Fremantle Port's strategic objectives are to:

- Pursue reliable and efficient services.
- Improve the capability of the business.
- Promote trade and business growth.
- Achieve improved efficiencies in cost, resources and systems.
- Create a sustainable business.

Fremantle Port has extended the North Quay rail terminal to increase the capacity and efficiency of its rail container operation. The intention is to progressively move more containers onto rail in order to meet the projected growth. The newly reclaimed land at Rous Head will be used for the management of container trucks. Roll-on-Roll-off facilities will be developed on Victoria Quay.

Fremantle Port confirms that the inner harbour will continue to operate as a working port and remain a major facility serving the State into the future. This objective is in line with the City of Fremantle's position that a working port should form part of the long term planning for the future of Fremantle.

As part of the long term future of the inner harbour, Fremantle Port considers it essential that the road transport corridors serving the port are improved, as road transport will continue to be the dominant mode of transport to the port, even if it is possible to achieve 30% of containers being transported by rail.

Currently, only around 15% of containers are moved by rail, despite a substantial subsidy from the State Government. At present, Fremantle Port is one of the best performing ports in Australia with movements on rail as shown in the table below:

Financial Year 2013/14	Total Rail
Brisbane	5.0%
Sydney	13.7%
Melbourne	13.9%
Fremantle	14.2%

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Between 2001 and 2011 (*Fremantle Port Container Movement Study 2012, by Fremantle Ports, MRWA, Department of Transport and the Freight and Logistics Council of Western Australia*) it was found that the growth in container traffic was around 5.5% per annum. In 2010 the total number of containers handled by the inner harbour was just under 600,000 TEU's. The Port now handles over 700,000 TEU's of which around 600,000 are transported on trucks and 100,000 by rail. If the future capacity of the port is greater than 1.4 million containers, (which is understood to be a very conservative estimate), then this equates to approximately 1.19 million TEU's by truck and 210,000 TEU's by rail in the future, based on rail carrying 15% of containers. If the movement of containers by rail increases to 30% then this would change to 420,000 by rail and 980,000 by road.

It is understood that approximately 95% of all trucks serving the Port come from south of the Swan River, with approximately 33% of those trucks entering the road network from the South West of the State, via the Kwinana Freeway or Stock Road with only 5% of trucks entering the Port from north of the Swan River.

The study also found that when imported containers are unpacked, 97% of the freight movements associated with these containers are within the Metropolitan area, and of this number, 80% are in locations south of Perth, mainly in Kewdale, Forrestfield, Welshpool, O'Connor, Spearwood and Bibra Lake. For the staging of containers, this mostly occurs in North Fremantle, Welshpool, Kewdale, and Bibra Lake and is similar for export containers.

The study confirmed that around 15% of containers are moved by rail and this is mainly within 20 to 30km's radius of the Port. The report determined that it may be possible to increase the share of containers transported by rail to 30%, but this would be subject to the appropriate infrastructure being available near key logistical loading and unloading sites.

This is an important point, as it is the planning and operation of terminals within the rail system, rather than the rail network itself that will be a key determinant of the use of rail to transport containers in the future. The opportunity to plan for rail terminals may be provided in the Latitude 32 Precinct, given its strategic location to serve both the existing inner and the planned outer harbours, together with the fact that it is a large "greenfield" area designated for future industrial development.

One important factor to consider is the cost benefit of transporting 30% of TEU's by rail, compared to the cost of transporting an additional 15% by road and this is a significant consideration for the Port of Fremantle. The economic argument is a reality and the costs associated with providing significant rail infrastructure to transport an additional 15% of TEU's to a future intermodal terminal, possibly at Latitude 32, and have the TEU's loaded on to truck and have them then transported back to the metropolitan area by road may not be cost effective.

The City of Fremantle believes that it is essential for investment to be made in rail infrastructure if Fremantle Port is to achieve a target of 30% of containers being transported by rail. (*Minutes-Strategic and General Services Committee. 17 June 2015*) The City of Fremantle also considers that the southern extension of the heavy rail line reserve from Fremantle Station to the South Fremantle Power Station is ideal for Passenger Rail Infrastructure, and should not be compromised by rail freight.

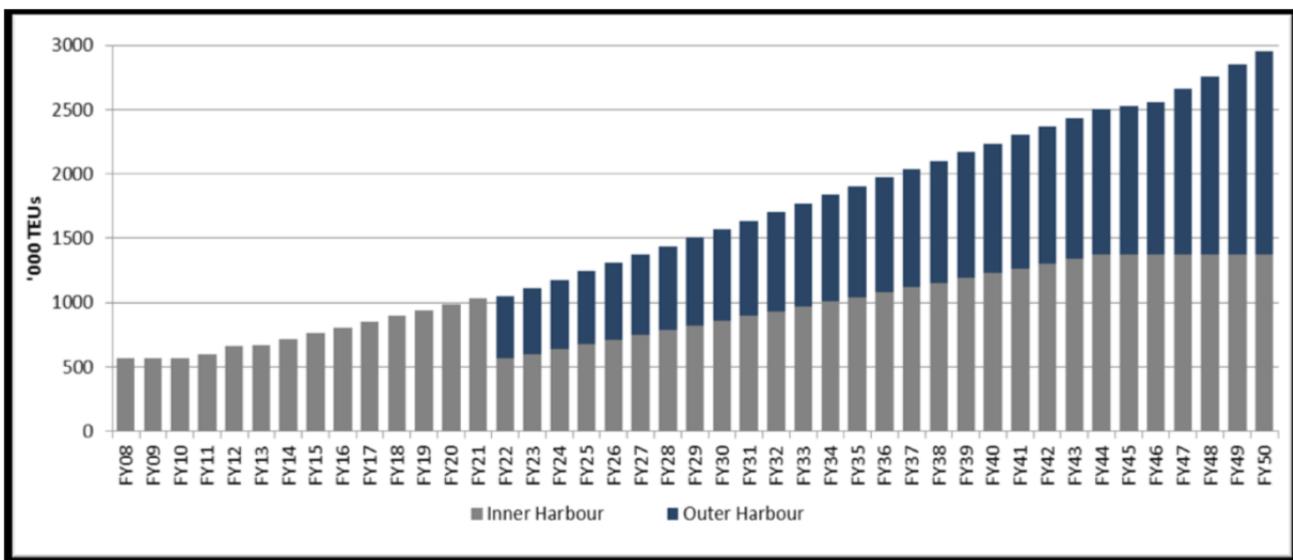
The City of Melville supports Fremantle Port's objective to transfer more containers by rail. However, it is evident that even if the aspirational target of 30% is achieved, 70% of TEU's will still be transported by road.

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Fremantle Outer Harbour

The Outer Harbour Project Report, dated 2004, makes it clear that the inner harbour will continue to operate as working port and that the outer harbour will be required to handle the additional trade once the inner harbour reaches its capacity. Based on the current growth of the inner harbour it could reach its capacity by 2025, but more likely beyond that time.

The graph below shows the demands on the inner harbour continues to grow after the outer harbour has been built and container growth will increase from the current 700,000 TEU's per annum to approximately 1.4 million. The graph assumes that the outer harbour comes on line in 2022; however this appears an unlikely scenario.



(Source MRWA)

The location of the outer harbour is in Cockburn Sound adjacent to the Latitude 32 Precinct. Cockburn Sound has been determined as the only location available on the Metropolitan coast where a new port could be established. The general location of the outer harbour has been endorsed by the State Government.

Transport access to serve the outer harbour is a critical consideration. Depending on the final location and configuration of the outer harbour, Rowley Road and/or Anketell Road will be required to serve the outer harbour with direct access from the Kwinana Freeway. These roads will not only provide free flowing road access to the outer harbour, but also to the existing Kwinana Industrial Area and Latitude 32. Rowley Road is planned to also include a rail corridor.

Although not directly associated with the proposal to provide a freight link to the inner harbour at this time, the extension of Roe Highway to Stock Road will provide improved access to the industrial areas south of Fremantle including the Kwinana industrial area.

The Kwinana industrial area is the most strategically important industrial area in the State, where road and rail access is vitally important for the economic success of this area and the State.

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Murdoch Activity Centre, with its existing collection of tertiary education institutions, hospitals, transport infrastructure and easily developable land presents an opportunity to become one of the largest centres of activity outside the Perth central business district. As a specialised activity centre with considerable scope to grow, Murdoch has the opportunity to provide up to 35,000 jobs in the longer term, with up to 44,000 students.

As part of the structure planning process for the Murdoch Activity Centre the City undertook an economic assessment of the benefits of the Murdoch Activity Centre and the results were consistent with those shown by MRWA with a rate of return of 2:1 for every dollar invested. This coupled with the benefits of the Perth Freight Link; highlight the significant impact these investments will have for the State.

In November 2011, the City of Melville prepared a report on the impact that the full development of the Murdoch Activity Centre will have on the City which included accessibility. The report made reference to traffic modelling undertaken by MRWA which concluded that by 2031 the traffic volumes on the roads adjacent to the Centre are likely to exceed their capacity.

More recent modelling undertaken by the Perth Transport Authority identified traffic congestion issues in both the AM and PM peak periods. Of concern was the AM peak period, where the modelling identified that when Fiona Stanley Hospital was opened and operating at capacity there would be a tailback of vehicles on the Kwinana Freeway off ramp at South Street, to the extent that the tailback would impact the level of service on the Kwinana Freeway.

Three years on, and this congestion is becoming a reality with the tailback on the off ramp reaching the Kwinana freeway during the AM peak period. Without alternative access from the south to the Murdoch Activity Centre the congestion will increase, particularly when the Mixed Use Precinct is developed.

With regard to the PM peak period the modelling identified significant congestion on Barry Marshall Parade, Murdoch Drive and South Street. Despite both Fiona Stanley Hospital and St John of God Murdoch developing and implementing travel management plans and altering shift patterns, this congestion, like the AM peak, is now a reality within the hospital precinct, and again will increase as the Mixed Use Precinct develops. When fully developed it is anticipated that 35,000 people will move in and out of the Murdoch Activity Centre on a daily basis.

To avoid a transport network failure in and around the Murdoch Activity Centre, the City has advocated, that in addition to road and intersection upgrades to improve access, it was essential that Roe Highway be extended to Stock Road and that a southern connection from Roe Highway to Murdoch Drive was critical to reduce traffic congestion and improve access.

Leach Highway and High Street

Leach Highway and High Street, east of Stirling Highway, are designated Primary Regional Roads in the MRS. They both form part of the current metropolitan freight route, albeit they were not designed to function as a freight route. For Leach Highway, east of the Kwinana Freeway, container trucks are restricted in recognition of the negative impacts on the community and other road users and are required to use the Roe Highway. Container trucks are also restricted on Canning Highway and South Street for the same reasons.

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This demonstrates that MRWA acknowledges that, by confining freight traffic to dedicated fit for purpose roads, there are benefits for both road users and the community through which regional traffic passes. Residents on Leach Highway east of the Kwinana Freeway to Albany Highway have benefitted from the reduction of heavy vehicle traffic due to the extension of the Roe Highway to the Kwinana Freeway. Roe Highway, which is a purpose built road, has grade separated intersections which facilitate free flowing traffic, it includes sound wall protection, it has high levels of amenity by way of a wide reservation, bicycle paths, landscaped verges and has no direct property access.

West of the Kwinana Freeway, Leach Highway is a constrained road not designed to function as a freight route. Because of the lack of any suitable alternative link for heavy vehicles to reach the port, Leach Highway and High Street have become the default “Roe Highway”. Leach Highway and High Street are unsuitable as a freight route because both have:

- A 70kph and a 60kph speed limit, respectively.
- In excess of 180 driveway connections from private properties. In addition battle axe subdivisions have been approved at the rear of some existing houses which have created additional driveways further exacerbating the situation.
- More than 20 road junctions without traffic light control.
- Eight sets of traffic lights in a distance of 8kms. The distance between the lights varies from as far as 1,300m to as little as 300m.
- Six lane divided carriage way and a four lane undivided carriage way respectively. Based on the traffic mix and volumes with direct frontage to residential premises, they would not comply with current road design standards or operating best practice.
- Existing houses and businesses directly abutting the road reserves limit the opportunity to expand the number of traffic lanes and if this was to occur there may be the requirement to install sound attenuation barriers in those sections of the road that were widened, which in the circumstances would be difficult to achieve.
- High traffic volumes. Leach Highway carries around 65,500 vehicles and High Street 20,000 vehicles per day. In comparison Canning Highway and South Street carry 68,500 vehicles and 49,500 respectively per day. Leach Highway and High Street carry a high percentage of heavy vehicles mixed with light vehicles and public transport.
- 28 bus stops between the Kwinana Freeway and Stock Road of which only two have an embayment, all the other stops require the bus to stop in the traffic lane.

Based on these existing factors alone, it is clear that the function and level of service of Leach Highway and High Street as a freight route and a major regional arterial road cannot be and should not be sustained.

Future Regional Road Plans

Recent Regional Planning undertaken by the WAPC (*Planning Framework Towards Perth and Peel @ 3.5 million. May 2015*) includes the extension of Roe Highway west of the Kwinana Freeway connecting to Stock Road as part of the Perth Freight Link serving the region. The Plan reflects the MRWA’s Base Case Option 1 to link freight traffic to Fremantle Port. The Plan designates this route as a “Freight Road of Strategic Importance”. This classification also applies to Stock Road south of the Roe Highway extension, Rowley Road, Anketell Road the Kwinana Freeway and the Forrest Highway.

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The Plan underlines the importance of a freight road network to the State in providing free flowing, efficient, safe and cost effective roads to serve the State's Strategic Centres and Transportation Hubs.

The Plan shows population growth in the South Metropolitan Peel sub-region (includes Rockingham, Cockburn, Kwinana, Gosnells, Armadale, Serpentine-Jarrahdale, Mandurah-Pinjarra, Waroona and Murray). The South Metropolitan Peel sub-region will experience strong growth, with the population forecast to more than double from 523,400 people in 2011 to 1.2 million by 2050.

Significant future development will occur on land already zoned as urban, including between Kwinana-Rockingham and Mandurah-Pinjarra which will place addition strain on an already strained metropolitan road network.

STAKEHOLDER ENGAGEMENT**I. COMMUNITY**

The extension of the Roe Highway west of the Kwinana Freeway has been the subject of on-going community consultation by various public agencies, particularly MRWA. Over the years the City and neighbouring Local Governments have been in direct and indirect contact with their respective residents and ratepayers.

On the 11 June 2015 in response to resident concerns about the impact of the MRWA's proposed Option 1, on their properties in Palmyra, the Mayor and the Elected Ward Member met with residents. They also provided a letter to those in the vicinity of the proposal, setting out the City's position. The letter also addressed a number of community "myths" about the proposed Perth Freight Link project.

II. OTHER AGENCIES / CONSULTANTS

At this stage there have been no formal engagement strategies implemented with any other local government or State agency or with any public relation consultants.

The City has been in contact with MRWA and will continue to work closely with MRWA and the State Government on this issue and will endeavour to keep the local community informed of future developments associated with the Perth Freight Link.

The City has also been in contact with Fremantle Port and the Cities of Fremantle and Cockburn.

STATUTORY AND LEGAL IMPLICATIONS

There are no Statutory or Legal Implications associated with this report as this report relates to a MRWA project.

T15/3645 – PERTH FREIGHT LINK PREFERRED ROUTE ALIGNMENT (REC)**FINANCIAL IMPLICATIONS**

There are no significant financial implications at this stage. However, there may be a need to undertake a public information and consultation programme, to ensure that the community and the State Government are fully informed of the City's position and have an understanding of the issues and possibilities that may affect them.

STRATEGIC, RISK AND ENVIRONMENTAL MANAGEMENT IMPLICATIONS

The following points outline the strategic context and considerations for deciding the Perth Freight Link route west of the Kwinana Freeway to Fremantle Port.

Primary Drivers for the Perth Freight Link

- *Fremantle Inner Harbour will remain a working port* – this is the established and currently restated policy position for both major political parties, the Fremantle Port and the City of Fremantle.
- *Population growth will generate continuing trade freight demand* – with Fremantle Port having the capacity for the projected growth in import/export trade to nominally double current container throughput.
- *State planning for metropolitan freight has always linked the Kewdale/Forrestfield with Fremantle Port* – container movement studies have shown the concentration of container freight activity land use in this locality and road and rail transport links to Fremantle.
- *Investment to improve freight transport productivity and cost competitiveness* – the growth in trade volumes and the need to contain costs for both local consumers and exporters in an internationally competitive freight market demands that freight infrastructure be developed or redeveloped as required.
- *Designation of the primary freight route to the port* – will relieve conflict and congestion with light vehicles in the south metropolitan region, particularly on Kwinana Freeway and Leach Highway.

The Perth Freight Link is a very important strategic project that has major implications for the City and its residents.

If the project is implemented in accordance with the City's preferred option, which is to tunnel under the FEB alignment, there will be measurable medium and long term benefits to the City, the region and Fremantle Port.

However, should the project not proceed as either Option 1 or 2, then there will continue to be increasing traffic and transport problems that will dis-benefit both residential and business communities within the City, adjoining Local Governments and the State and over time these dis-benefits are likely to become significant.

Therefore, it is essential in the interest of all stakeholders that the City continues to strongly support the extension of the Roe Highway as part of the Perth Freight Link project and to promote the use of the Fremantle Eastern Bypass alignment by tunnelling all or part of the route from Clontarf Hill to Stirling Bridge. It is important to work with the proponent, all interested parties and stakeholders affected by the proposal together with the broader community.

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The southern metropolitan region population is expected to grow by 57% by 2031 which will add pressure on the district and regional road network. It is therefore important that the Perth Freight Link becomes operational, so that it can contribute to the management of the traffic and transport requirements of existing and future residents and businesses.

A recent report by the Federal Government on the state of Australian Cities has indicated that the population of metropolitan Perth is expected to grow to 5.5 million by 2061 and that significant investment in road and rail infrastructure will be required to cope with the increasing transport demands.

At present, Perth has suffered traffic congestion growth at a rate that surpasses any other capital City in the nation. This has resulted in an increase over the past decade, with it taking an extra 31 seconds to travel one kilometre, compared to Sydney which has only experienced an increase of 12 seconds per kilometre over the same period of time.

The report also highlighted that Perth Airport and Fremantle Port will continue to experience substantial growth over the coming decades. It is clearly evident that billions of dollars in investment in transport infrastructure will be required in the not too distant future to deal with the projected growth of Perth and that the Perth Freight Link is an essential part of that infrastructure planning.

Risk Implications

The primary risk is that State Government does not proceed with the project due to public resistance, environmental issues or a lack of adequate funds.

Should the project not proceed, then it is not clear what other options are available for a fit for purpose regional freight route linking the eastern metropolitan industrial areas through the southern suburbs to Fremantle Port. Such an outcome would have major implications within the region and well beyond the City. It is therefore considered essential that this one off opportunity to “connect the link” and provide a free flowing freight route to Fremantle Port is seized at this time.

At this stage it is not known what plans Fremantle Port has to manage traffic within North Quay as the demands on the port increase over the coming decades. The establishment of a dedicated free flowing road for freight traffic to the port is fully supported. However, where it terminates at Stirling Highway is not clear, nor what is planned to expand the capacity of Stirling Bridge and the capacity of the at-grade intersections to cope with the additional traffic flow.

The distance from High Street to Port Beach Road via Stirling Bridge is around 2.8kms. In this distance there are four sets of traffic lights and one railway level crossings.

Unless these road and access matters are addressed, it could limit the ability of the Port to capitalise on the benefits of the Perth Freight Link. However, these related considerations, are understood to be beyond the scope of the current project and are being addressed by MRWA in the future.

T15/3645 – PERTH FREIGHT LINK PREFERRED ROUTE ALIGNMENT (REC)**Environmental Management Implications**

In September 2013, the Environmental Protection Authority (EPA) recommended that conditional approval be given for the Roe Highway extension, between the Kwinana Freeway and Stock Road.

The EPA conditions require the proponent, MRWA to:

- Avoid, minimise and mitigate environmental impacts.
- Undertake restoration works.
- Acquire wetland areas.
- Provide 234 ha of cockatoo foraging habitat.
- Apply innovative planning and design measures and construction techniques.
- Prepare monitoring and management plans.

The EPA advised that its conditional approval was not a formal assessment, but was of the view that the proponent had:-

- Recognised the regional significance of Bibra Lake and its environs.
- Proposed to “step over” the wetlands by using a “top-down” design approach, to minimise the impact on wetlands, fauna and vegetation and to provide off-sets.

The City fully supported the terms of the conditional approval issued by the EPA and is aware that MRWA will be employing innovative planning, design and construction techniques, and in addition it believes that these works could be the catalyst for further enhancing the natural and recreational values of the Beeliam Regional Park in the vicinity of the road crossing.

Evidence of previous environmental sustainability initiatives associated with the Perth Bunbury Highway Project included the following:

- Fauna underpasses.
- Installation of “cock-a-tubes” – artificial Black Cockatoo nesting boxes.
- Construction of a wetland adjacent to the Serpentine River from a sand quarry.
- Use of “red mud” (a waste product of bauxite mining) in a drainage basin to treat contaminants.
- Installation of noise walls.
- Translocation of *Drakaea elastica* (Glossy-leafed Hammer Orchid) – removing the orchids from the road alignment and replanting them in the wild and in the Kings Park nursery.
- Funding of studies into the lifecycle of *Drakaea elastica*.
- Topsoil management – constructing usable topsoil through the composting of unsuitable topsoil.
- Offsets – acquisition of land for conservation purposes as an offset for impacts of constructing the highway.

The City encourages the proponent to consider the inclusion of a similar package of ancillary landscaping and conservation works, as part of the project, in recognition of the importance of the Beeliam Regional Park to the local and wider communities.

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On 2 July 2015 the Acting Transport Minister formally announced that the Minister for Environment had approved Roe 8 subject to strict conditions. The following is an extract from the Acting Transport Ministers press release:

“It has been identified that the project could be managed to meet its environmental objectives. The EPA had commended Main Roads for its approach to the project, saying ‘from the outset the proponent has recognised the regionally significant environmental values of the area and has sought to apply innovative planning and design measures, and construction techniques. This has set a new standard for major road projects in this type of sensitive environment’.

MRWA undertook extensive community consultation during the planning phase for Roe 8 and as a result considered an alternative alignment to that identified in the MRS to reduce the environmental impacts on the Beeliar Regional Park.

This approval identifies that MRWA has carefully considered the requirements from the conditional approval in September 2013 and has satisfied the EPA regarding the environmental conditions associated with Roe 8.

The final step in the approval process for Roe 8 between Kwinana Freeway and Stock Road rests with the Federal Minister for the Environment a decision is expected within the next month or so.

ALTERNATIVE OPTIONS AND THEIR IMPLICATIONS

Based on the information available about the two options being considered by MRWA for the Perth Freight Link, it is difficult for the City to provide detailed responses to the proposals and to identify tested alternatives at this time.

The City’s preference is for the Perth Freight Link route west of Stock Road to follow the Fremantle Eastern Bypass alignment based on tunnelling the connection between Clontarf Hill and Stirling Highway. This is MRWA’s Option 2 and will result in less adverse impacts on local communities both within the City of Fremantle and the City of Melville.

The City is firmly of the view that tunnelling all or part of the route following the Fremantle Eastern Bypass alignment, as described in Option 2, will minimise the need to acquire properties, reduce the impact of the Perth Freight Link on existing and future residents, and limit the disruption to the existing structure and patterns of use of local neighbourhoods, thus significantly minimising the future social costs.

Another very important advantage of Option 2 is that, if for some reason the tunnel is compromised by traffic conditions, an accident, maintenance works, or an unforeseen event, the option to access the port via Leach Highway, High Street and Stirling Highway can remain as an alternate route to the port.

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Should Option 2 be found to be feasible and viable, then consideration should be given by MRWA to making the connection onto Cockburn Road, subsidiary, so that the primary traffic flow is emphasised between Stirling Highway and Stock Road. Heavy vehicles, container trucks and regional through traffic should be discouraged from using Cockburn Road to access the Henderson Marine Precinct, the future outer harbour, Latitude 32 and the Kwinana Industrial Area. Cockburn Road south of Rockingham Road in Hamilton Hill is currently classified as a Primary Regional Road under the MRS which passes through an attractive coastal strip of high quality housing and a Marina which overlooks Owen Anchorage. This coastal residential strip should be protected from the adverse impact of incompatible traffic travelling through the area.

Another major issue of concern related to Option 1, is in respect to how MRWA intends to manage the traffic currently using Leach Highway and High Street during construction. There appears to be few options available to detour the significant volumes of traffic around the Stock Road and Leach Highway intersection over an extended period, while maintaining the required level of service to the port, Fremantle and the coast. It is anticipated that the disruption to traffic would be quite substantial over the duration of construction and significantly impact travel times through this intersection.

Should Option 2 be found not to be feasible or viable the City would be concerned if Option 1 progressed as currently proposed by MRWA given the direct impacts it will have on existing residences and businesses. Before this Option is finalised and contracts let, MRWA should undertake further investigations to determine how the route can be realigned so as to eliminate the need to acquire properties.

To minimise the impact of the Perth Freight Link on residents abutting High Street and its junction with Stirling Highway, consideration be given by MRWA to the provision of a service road and a sound barrier to these residences in order to remove the direct driveway access onto the Perth Freight link route and to improve the amenity for these residents.

The City, however, reiterates its view that Option 1 is considered sub-optimal and is unlikely to be able to sustain the level of service required to the region or the Port in the long term, based on Fremantle Port's existing and future operations.

CONCLUSION

In conclusion, the foregoing report sets out the reasons for the City to support the Perth Freight Link project.

It is clear that without the Perth Freight Link to serve the traffic and transportation needs of the region, access to the Fremantle Port, the future outer harbour, the Henderson Marine Precinct, the Kwinana Industrial Area, Latitude 32 and the Murdoch Activity Centre will become dysfunctional and adversely impact the regional road network and the development potential of Perth's southern region.

The City continues to fully support the extension of the Roe Highway to Stirling Highway. It is essential that the Perth Freight Link be considered as a single project, because each component of the project relies on the other to be successful, and therefore they need to be completed sequentially or simultaneously, otherwise the project objectives may not be achieved.

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In addition, it is important to consider the need for the preparation of an access strategy for the inner harbour including Stirling Highway, so that the benefits of the Perth Freight Link can be maximised, to benefit the short and long term growth and development of the Fremantle Port.

It is clear that Option 1 is sub-optimal when considering the factors detailed above and this option does not provide the sustainable long term solutions to the movement of freight within the southern metropolitan region.

It is therefore recommended that the Council endorse Option 2 with a tunnel under the Fremantle Eastern Bypass alignment as its preferred alignment, as this is the best outcome for the community, business owners, the long term operation of the Perth Freight Link, the Southern Metropolitan Region and Fremantle Port. This option will not only benefit the local communities, it will potentially become the catalyst for the future economic prosperity of the State.

OFFICER RECOMMENDATION (3645)**APPROVAL****That the Council:-**

- 1. Reconfirm its support for the extension of Roe Highway between the Kwinana Freeway and Stock Road in accordance with the plans adopted by Main Roads Western Australia to finalise the Perth Freight Link.**
- 2. Request the Chief Executive Officer to write to Main Roads Western Australia requesting they approach the construction of the Roe Highway extension for that section within the Beeliar Regional Park, in such a way as to minimise any potential adverse environmental impacts on the Park, by ensuring the maximum protection of the flora and fauna, the wetlands and the amenity of the area, together with maintaining and enhancing public accessibility of this regionally important asset.**
- 3. Reiterate its support for the extending the Roe Highway, west of Stock Road to Stirling Highway, utilising the alignment of the Fremantle Eastern Bypass for the Perth Freight Link.**
- 4. Request the Chief Executive Officer to write to the State Government advising that in order to minimise the potential impact of utilising the Fremantle Eastern Bypass alignment for the Perth Freight Link, all or part of the route between Clontarf Hill and Stirling Highway be tunnelled.**