



## Community and stakeholder engagement programme

South Metro Connect (SMC), November 2010. *Community & Stakeholder Engagement Report*. Unpublished report prepared for Main Roads, Perth, WA.

## Appendix B

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Community and stakeholder engagement programme  
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## Roe Highway Extension

### Community & Stakeholder Engagement Report

60100953-313G-CS-REP-0012



mainroads  
WESTERN AUSTRALIA

AECOM

Seeking **collaborative solutions** for extending Roe Highway




## Community and Stakeholder Engagement Report

### Project Brief

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**South Metro Connect is an integrated project team comprised of personnel from Main Roads Western Australia and AECOM. The team was created for the development of Roe Highway Extension project. Its primary objective is to work collaboratively with specialty consultants, stakeholders, and regulatory authorities to develop an environmentally, socially and economically acceptable project design that ultimately receives statutory approval.**

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## Report Objective

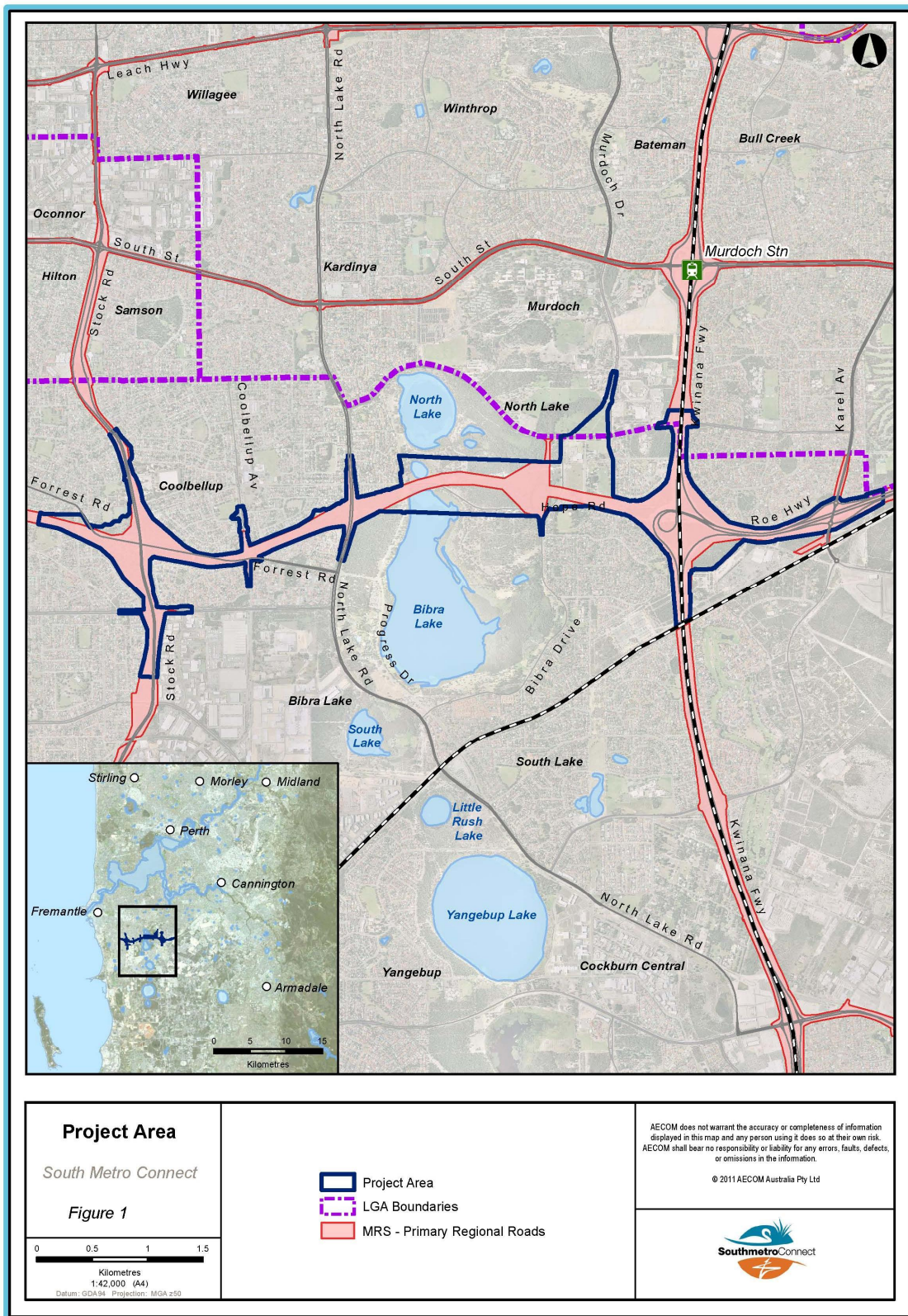
The aim of this report is to provide an overview of the community and stakeholder engagement work undertaken by South Metro Connect during the project development phase of the proposed Roe Highway Extension, and to provide feedback on the outcomes of the process.

The project development phase entailed:

- identification of a preferred alignment within the project boundaries (see Figure 1);
- development of a preferred concept design that would take social, environment and economic factors into consideration; and
- taking the preferred concept design through the statutory environmental approvals process.

South Metro Connect is a team of professionals from Main Roads Western Australia and industry partner, AECOM, brought together in mid-2009 as an integrated project development team for the proposed Roe Highway Extension.





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**Figure 1: Project boundaries**

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South Metro Connect, a partnership between Main Roads and AECOM for the project development phase of the Roe Highway Extension

AECOM Australia Pty Ltd  
ABN 20 093 846 925



## Executive Summary

As part of the project development process for the proposed Roe Highway Extension, a collaborative engagement process was established with potentially impacted and interested members of the community, and stakeholders. Stakeholders included local government authorities, regulatory agencies, education facilities and private industry, who were provided with an opportunity to influence the concept design and to raise relevant concerns.

### Objectives

The objectives of the community and stakeholder engagement process were to:

- Engage with communities and stakeholders openly to:
  - gain an understanding of issues and concerns and gain local knowledge; and
  - identify the preferred project concept design.
- Establish engagement processes that would reach the broad communities and stakeholders to include those who support, as well as those who oppose, the project;
- Be flexible in our approach to meet varied engagement expectations;
- Establish a process to provide factual information to potentially affected and interested communities and stakeholders;
- Provide input into the Public Environmental Review (PER) document;
- Build relationships with state and local government agencies; and
- Ensure there was a feedback loop for internal and external stakeholders.

### Influence on design

Establishing an environment that would broaden opportunities for community and stakeholders to engage collaboratively, provide comment, raise issues and offer ideas that would, or could influence the design, was a key consideration in developing an engagement schedule that would mirror the requirements of the environmental approvals process.

Early identification of stakeholders that would be potentially impacted by construction of the proposed highway was undertaken and ongoing meetings established. The most potentially impacted stakeholders included:

- City of Cockburn;
- City of Melville;
- Department of Environment and Conservation;
- Aboriginal groups;
- Murdoch University;
- The Spanish Club;
- Murdoch Pines Golf and Recreation Park;
- Lakeside Recreation Centre;
- Blue Gum Montessori School;
- Hamilton Senior High School; and
- Residents living adjacent to the proposed highway and associated local road changes.

With a desire to maximise input, a series of design workshops complimented by two information days were held to create awareness and provide an opportunity for feedback.



A Multi Criteria Analysis (MCA) workshop was held early in the process to generate a list of community values that could be weighted and interpreted into criteria to be used for option selection, in the event that more than one viable concept was produced in any particular section of the proposed highway. These criteria were also considered as concept designs were produced.

Potentially impacted and neighbouring communities were invited to attend both the design workshops and the initial MCA workshop.

### **Design workshops**

Dividing the project into three sections - Kwinana Freeway to Bibra Drive (1); Stock Road to North Lake Road (2); and North Lake Road to Bibra Drive (3), meant that the design team could provide separate concept designs for each area to enable workshops to proceed progressively, while development of essential concept data continued for other areas. Information obtained from the workshops was then used to evaluate concept designs, providing they still met project requirements, government regulations and specialist recommendations.

Key issues expressed at the workshops included connectivity, potential for rat running, proximity of traffic lanes to residential properties, heritage sites, retention of remnant vegetation and other environmental and social impacts including construction and operational concerns. A summary of community comments from design workshops 1 – 3 is in Appendix G.

### **Option Selection Workshop**

After evaluation of various portions of the design against project requirements and consideration of community and stakeholder comments, only the central (wetlands) section of the alignment presented more than one viable option. As a consequence, an Option Selection Workshop was held on 29 June 2010 to consider these options using the MCA weightings previously agreed with community and stakeholders. This included six environmental, social and economic criteria, where the three categories were equally weighted (i.e. 33.3%).

Following an invitation for expressions of interest, 17 community members and stakeholders and 11 South Metro Connect representatives discussed the two options for the central (wetlands) section between Bibra Drive and Progress Drive - a northern alignment or southern alignment. Stakeholders requested additional consideration of two further options:

- A northern alignment that would maximise use of the existing power line corridor; and
- Bridging across the whole section.

The outcome was to evaluate the issues and viability of the northern alignment that would maximise use of the existing power line corridor.

### **Feedback**

Once sections of the concept design were completed, a series of brochures covering each design workshop were developed to provide feedback to the community on what changes had occurred as a result of their participation in the process.

Project updates, in the form of a newspaper segment, were published in community newspapers on a regular basis to keep external audiences informed of progress. Community newspapers used were:

- Fremantle/Cockburn Gazette;
- Melville Times;
- Canning Times; and
- Weekend Courier (Kwinana).

All publications were progressively added to the website and distributed to subscribers of the project update email process.

## **Process**

Generally, feedback on workshop evaluation forms indicated that most participants were satisfied with the workshops process. However there was some feedback which questioned the validity of the process, in that it did not consider alignment options outside the project boundaries or the 'no build' ('No Roe') option.

Some process difficulties were encountered with the initial MCA workshop due to the large number and duplication of values across the environment, social and economic criteria, and a greater expectation by the project team on what could be achieved in the workshop timeframe.

## **Value of community engagement for the proposed Roe Highway Extension**

The engagement process has enabled the community and stakeholders to:

- participate in the identification of the road alignment within the project boundaries;
- express their views with the project team and amongst each other;
- raise concerns; and
- influence changes to the concept designs initially presented.

This process has created greater awareness of the proposed highway, connections, local access, the environment, and consequential changes to the general area. It has also created greater awareness within the project team of issues important to the local and broader communities and, to some extent, the general public.

## 1.0 Introduction

The proposed Roe Highway Extension (Project) will take the existing highway approximately 5km westward from its current southern end point at Kwinana Freeway in Jandakot, to Stock Road in Coolbellup, generally via the current road reserve as defined in the Metropolitan Region Scheme (MRS). The Project has been identified as critical to the south west Perth metropolitan area, an area that is forecast to continue to grow rapidly in terms of population, jobs and community services. It will provide:

- increased transport and associated transport efficiency to and from the Fremantle Inner Harbour;
- a link between the Inner Harbour and proposed Outer Harbour and other southern locations; and
- remove heavy vehicles from local streets and Kwinana Freeway.

The Project, which was previously referred to as 'Roe 8' by Main Roads and is still commonly known by this name in the community, has been the subject of much debate over a number of years with diverse views from supporters and opponents.

Supporters include those affected by current regional road network, social and economic issues, some of which will be alleviated by the Project. These supporters come from diverse groups that include commercial and transport operators, government agencies, residents affected by heavy vehicle movements (predominantly on Leach Highway and South Street), and generally those seeking improved access to major road infrastructure and resolution of the growing traffic congestion in the area.

Opponents, many of whom have been protesting against any further extension to Roe Highway for many years, consider that the associated environmental and social impacts, particularly in the North and Bibra lakes area, are unacceptable. Further to this, they argue that the extension is a 'road to nowhere' that will not solve the traffic problems being faced.

The varied and complex issues associated with the Project require a sustainable outcome that provides an acceptable balance between environmental, social and economic issues. A collaborative engagement program was implemented to obtain community and stakeholder input for the identification of the preferred alignment (within the project boundaries) and determination of the preferred concept design.

The community and stakeholder engagement process was aimed at meeting the government commitments to:

- Ensure that the highway alignment is within the project boundaries, and meets road standards, and that the number of interchanges and other concept details will be determined through community and stakeholder collaboration; and
- Ensure that 'The highest levels of community engagement will be adopted on this sensitive and very important project to ensure sustainable outcomes are achieved.'<sup>1</sup>

The engagement program enabled the community, stakeholders and project team to make informed decisions, with particular regard to local issues and other information that might not have otherwise been evident. The engagement process also better informed the community and stakeholders about the project development outcomes, providing a level of understanding which will facilitate the implementation phase.

### 1.1 Previously Identified Environmental and Social Values of the Area

The road reserve for the Project, which has been in place for more than 40 years, is surrounded by urban residential development, except for the section of the Beeliar Regional Park between Bibra Lake and North Lake. The road reserve contains a corridor of generally good vegetation that has preserved some habitat for the Carnaby's Black Cockatoo, Quenda and other mammals, birds and reptiles. The road reserve has enabled neighbouring residents quiet enjoyment of the vicinity along with the area of North and Bibra lakes and adjacent conservation wetlands.

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<sup>1</sup> Beeliar Regional Park Final Management Plan (2006)

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The wetlands provide recreational value to local residents, visitors and environmental interest groups. Recreational activities include:

- Walking;
- Walking the dog;
- Cycling;
- Exercise / physical fitness;
- Bird watching;
- Wildlife observation; and
- Picnics and other social activities.

According to a visitor survey (Patterson Market Research, 2004), an estimated 3000 people visit Bibra Lake Reserve per week. Two thirds of these visitors come from within the City of Cockburn with the majority of the remainder being from other southern regional areas. As noted by Patterson, other surveys indicated visitors came from other metropolitan suburbs as well as from interstate and overseas (*Bibra Lake Landscape, Recreational and Environmental Management Plan* prepared for City of Cockburn by Strategen, December 2009).

The wetlands attract migratory birds, which is a trigger for the China-Australia Migratory Bird Agreement (CAMBA) and the Japan-Australia Migratory Bird Agreement (JAMBA) under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act).

The surrounding area also provides habitat for the Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*), which is listed as endangered under the EPBC Act, and other fauna. The Carnaby's Black Cockatoo is only found in south-west Western Australia, mainly in uncleared or remnant areas of eucalypt woodland, particularly Salmon Gum and Wandoo, and shrub land and heath country dominated by Hakea, Dryandra and Banksia species.

The area is considered to be of high environmental value, although parts of the wetlands are not considered to be in good condition, due to infestation with various weeds and possible contamination as a result of an old waste facility. Nevertheless, it is understood that many in the community have invested their own time and money in doing their best to maintain wetland quality, particularly with regard to weed removal and new native plantings.

The area is also important to and used by educational institutions from primary to tertiary and by community education centres.

There are known Aboriginal heritage sites within the MRS, which passes between Bibra and North lakes. The lakes of Beeliar Regional Park are important as spiritual and mythological locations and are still visited for religious and spiritual reasons<sup>2</sup>.

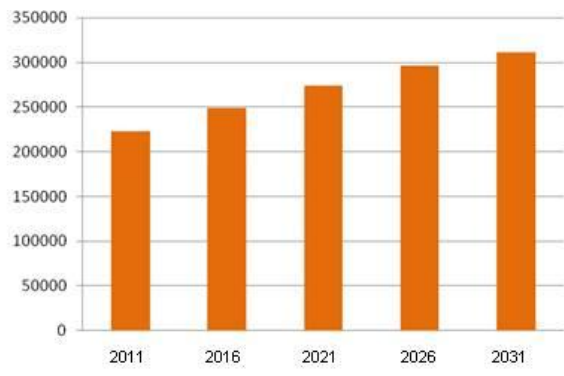
## 1.2 Regional Growth

Over the last decade, the south-west metropolitan region has experienced extraordinary growth, which is set to continue with a number of significant commercial, industrial and residential developments. Population growth in the Perth and Peel region is estimated to grow from 1.6 million to 2.2 million by 2031 (WA Planning Commission: Directions 2031 and beyond – metropolitan planning beyond the horizon, August 2010).

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<sup>2</sup> Beeliar Regional Park Final Management Plan (2006)

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**Figure 2: Graph to illustrate the combined forecast population growth for the cities of Cockburn, Kwinana and Melville**

With the growth of the area (see Figure 2 for the expected growth in the vicinity of the project area) comes an increase in traffic demand and efficient freight movement needs, without which substantial and potentially unmanageable pressure will occur on key intersections and arterial roads. The outcome of this is expected to increase traffic on local roads and negatively impact on new developments, such as access to the Fiona Stanley Hospital, scheduled to open in 2014. Appropriate levels of transport infrastructure are required to address increases in road transport to reduce the cost of traffic congestion for Perth, which is estimated to be more than \$2 billion a year by 2020. These estimated costs reflect the costs of increased fuel, higher air pollution and time wasted in traffic, which have associated social and economic costs.

### 1.3 Objectives

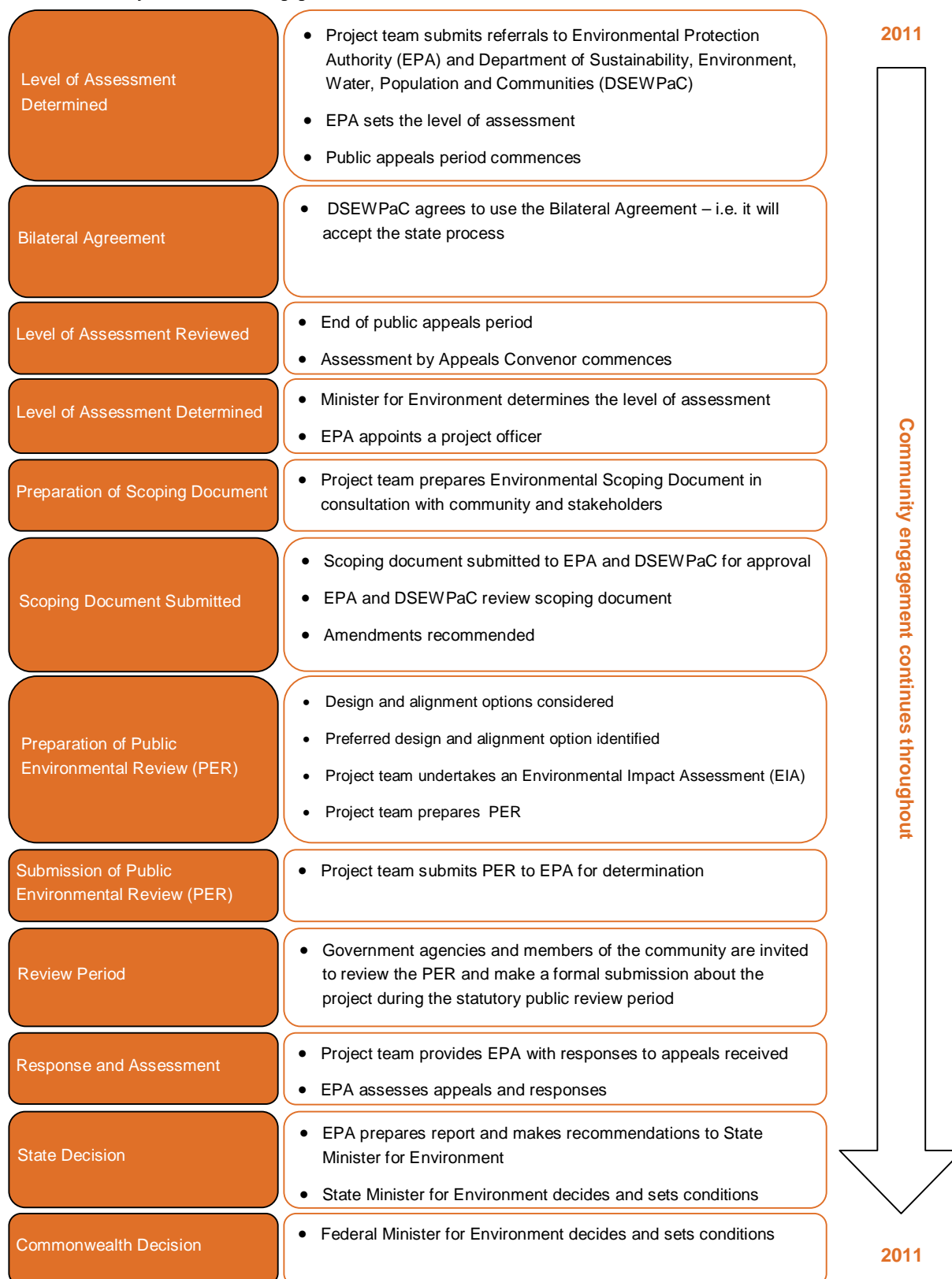
The objectives of the community and stakeholder engagement process were to:

- Undertake a collaborative community and stakeholder engagement process;
- Engage and consult with communities and stakeholders openly to gain an understanding of issues and concerns and gain local knowledge;
- Establish engagement processes that will reach the broad communities and stakeholders to include those who support as well as those who oppose the project;
- Be flexible in our approach to meet varied engagement expectations;
- Establish a process to provide factual and honest information to potentially affected and interested communities and stakeholders;
- Provide input into the PER document;
- Build relationships with state government agencies and local government; and
- Ensure there is a feedback loop for internal and external stakeholders.

### 1.4 Timeline

The community and stakeholder engagement timeline was established to mirror environmental and design activities that would meet the State Government commitment to have the project ready for construction by mid-2012, assuming the project is funded and environmental and government approvals are obtained. This timeline is reflected in Table 1.

**Table 1: Community and stateholder engagement timeline**





## 2.0 Influence on Design

Planning for the Project was carried out in the 1960s, resulting in the definition of a road reserve in the MRS.

The current project development phase involved working within pre-determined Project boundaries (i.e. generally the MRS road reserve) to develop concept designs to be used to inform the PER. The project development phase was therefore a period that provided the best opportunity for interested community members and stakeholders to influence the design.

It is worth noting that the Project boundaries included government-owned land adjacent to, but outside of, the road reserve east of North Lake Road, while west of North Lake Road the alignment was contained within the pre-existing road reserve.

A key factor in the engagement process was to create an environment for members of the community and stakeholders to have a say in what was being proposed. This identified a need to provide information about the Project, discuss potential issues and share ideas in a collaborative framework. To do this meant identifying various methods of communication and processes that would encourage comments, discussion and input to decision making as much as possible. The processes used included:

- Collaborative workshops:
  - Multi Criteria Analysis workshop to identify criteria to be used for option selection
  - Three design workshops
  - One Option Selection Workshop (using Multi Criteria Analysis);
- Online discussion forum;
- Website;
- Various modes of contact:
  - Enquiry email
  - Toll free telephone number
  - Shop front
  - Subscriber bulk email;
- Feedback brochures on the design workshops to advise what changes had occurred as a consequence of comments received; and
- Project updates published in four local community newspapers.

## 2.1 Collaborative Workshops

### 2.1.1 Multi Criteria Analysis (MCA) Workshop

The first workshop, held on 19 February 2010 (a half-day), was the MCA workshop. The aim of the workshop was to enable community and stakeholder participation in identifying criteria under sustainability principles (environment, social and economic) that, based on their values, would be weighted and used in an MCA tool to aid option selection. The workshop was broadly advertised, resulting in the attendance of 68 people. Details on promotion, attendee representation and process evaluation are included in Appendix A.

The workshop was facilitated by two professional workshop facilitators. Participants were seated at tables of up to 10 people, including a table host (facilitator) from South Metro Connect, who encouraged discussion at the tables and assisted participants with the recording process.

Open discussion was encouraged on the basis of:

- No bias;

- All criteria are valid;
- No duplicate criteria; and
- Everyone to consider all criteria.

Nine tables were set up in three sets of three, labelled by the sustainability principles of social, environment and economic. Participants were free to sit at any table at the start of the workshop. The process was to have three table rotations to provide participants with an opportunity to enter into discussion under each of the three sustainability principles. During this time, table facilitators recorded the values given by participants and handed these to South Metro Connect staff, who entered the data into spreadsheets at the end of each table rotation.

Various resources including worksheets, stationery, display material and table facilitators were provided at the workshop to assist with the process.

A large list of potential criteria was recorded, containing 37 for social, 33 for environment and 37 for economic. It was found, however, that there was considerable duplication across the three main headings, making consolidation for group consideration and weighting difficult in the given timeframe. Recognising the difficulties and explaining this to the participants, weighting was still carried out, with consolidation to occur outside the workshop. These difficulties were reflected in the process evaluation results.

The weighting process was a simple method of prioritisation using coloured dots of different ratings:

- Red = 3 points;
- Yellow = 2 points; and
- Blue or black = 1 point.

For the process, each participant had a selected number of dots of each colour to use:

- 1 Red;
- 3 Yellow; and
- 10 Blue or black.

Participants were asked to place the dots against the factors most important to them.

The top identified criteria, after consolidation of all the information received at the workshop, were selected for use in the option selection process. During the consolidation process, the project team realised that 'Impact on Aboriginal Heritage' had not been identified as a criterion, and given its importance, added it to the list of social criteria. The final criteria for each category were:

- Environmental
  - Impacts on the wider area;
  - Impacts on fauna;
  - Potential for contamination;
  - Size of the project footprint; and
  - Impacts on the wetlands.
- Social
  - Planning to enhance the social environment;
  - Noise impacts;
  - Impact on Aboriginal heritage;
  - Provision of pedestrian access and connectivity;
  - Visual impacts;





- Concerns could be raised and discussed.

Each design workshop was preceded by an online discussion forum with the aims of generating a greater number of comments than those likely to be gathered at the workshops, and to enable a participation opportunity for those that could not attend the workshops.

#### 2.1.2.1 Workshop Format

The workshop was designed to offer two formats for participants - structured and unstructured. However, irrespective of the format chosen, all participants shared the same workshop introduction and materials.

Workshops commenced with a one hour briefing in which participants were provided with the following information:

- The role of South Metro Connect;
- Project boundaries;
- The decision making process;
- Workshop principles;
- Objectives of the workshop;
- Workshop process (structured and unstructured);
- Promotion of the event;
- Calendar of community involvement opportunities; and
- Introduction to the discussion drawing.

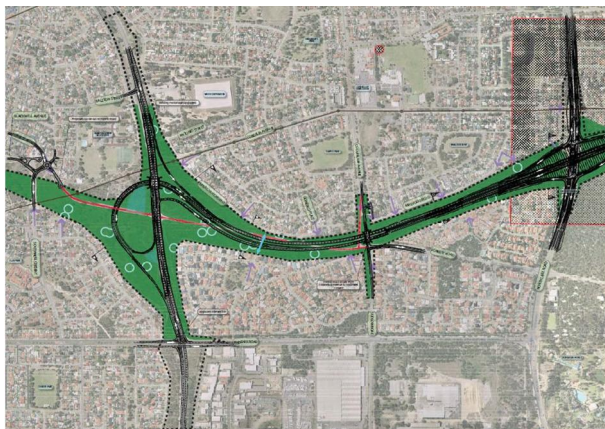


Figure 5: Design Workshop 2 discussion drawing

This briefing ensured that all participants were equipped with the same level of project information. It also provided an opportunity for participants to ask general questions about the project. For the second and third workshops attendees who arrived late were invited to receive this briefing independently before joining the session. This change in process was established as a result of latecomers for Design Workshop 1 not receiving important introductory information that provided context to the workshop process. At the end of the briefing, participants were invited to choose either the structured or unstructured format, both of which were facilitated, and then move to the relevant location. The majority chose the structured format at all three workshops.

#### Structured session

Participants of the structured session (based on the World Café technique) sat at tables of up to 10 people, including a table host, who provided guidance to keep on topic, encourage dialogue and encourage all to note their comments on a provided feedback sheet. The feedback sheet included a copy of the discussion drawing on one side, so that participants would have a reference point if they chose to complete the form outside of the workshop. This session included three pre-determined discussion topics:

- Suggested alignment options;
- Form of the highway; and
- Linkages to existing roads.

Some of the topics discussed were:

- ### Unstructured session

[illegible]

**Figure 6: Design Workshop 3 discussion drawing**

Feedback forms for the designs were collected at the end of the workshops and the comments were individually recorded in a spreadsheet. No differentiation was made between the sessions (structured or unstructured). Feedback forms submitted after the event were included.

A summary of community comments from design workshops 1 – 3 is in Appendix G.

- An information pack, which was sent to registered participants prior to the workshop;
- The discussion drawing specific to the focus area of the workshop (see Figures 4 – 7):

- 

**Figure 7: Working with discussion drawing at Design Workshop 3**

comments on the other; and

- Workshop evaluation sheets.

Technical specialists attended each of the design workshops to respond to more specialised questions if they arose. This proved to be invaluable, enabling queries and concerns to be addressed immediately where possible. Technical specialists included South Metro Connect designers and environmental scientists, Main Roads senior personnel and representatives from Department of Planning, Public Transport Authority (buses) and local government (roads).

The information received and the discussions held were highly valuable and ensured that the draft concept designs were assessed with community and stakeholder input. This resulted in a number of significant changes being made, specifically east of North Lake Road as shown in Table 2.

The number of comments received at each workshop varied, with the majority submitted at Design Workshop 1, even though that workshop did not have the highest attendance. Participants at Design Workshop 1 came from areas between Bibra Drive and Karel Avenue, since tie-in works would likely stretch to Karel Avenue, as well as from the broader area, including residential representation from Melville. The first workshop also included the southern connection to the Murdoch Activity Centre as well as the Kwinana Freeway/Roe Highway interchange, all of which added complexity.

Concerns were raised at each workshop regarding construction and operational issues.

**Table 2: Design workshop issues raised and influence on design**

Design Workshops	Key Issues/Concerns Raised	Influence on Design
Design Workshop 1 – Kwinana Freeway to Bibra Drive Saturday 6 March 2010 (9am-1pm) Monday 8 March 2010 (5.15-9pm)	Majority preference that there should not be a connection from Roe Highway to Bibra Drive Concerns that Bibra Drive would be used as a short cut, therefore increasing traffic The alignment would have significant negative impact on land used for recreational activities Relocating the freeway southbound off ramp onto Roe Highway eastbound closer to residences on the north east quadrant (Leeming) and associated increased noise impacts Loss of vegetation.	Connection from Roe Highway to Bibra Drive deleted - will now be to Murdoch Drive Extension on the Baker Court alignment Deleting connection to Roe Highway will eliminate benefit of using Bibra Drive Minimise visual impact and impact on environment as much as possible  Re-design of freeway interchange removes need to relocate existing southbound off ramp closer to residential properties  Re-design of freeway interchange substantially reduces associated loss of vegetation
Design Workshop 2 – Stock Road to North Lake Road Tuesday 4 May 2010 (9am-1pm) Tuesday 4 May 2010 (5.15pm-9pm)	Provision of a free-flowing Interchange at the connection with Stock Road Retention of remnant vegetation Provision of local area access, east and west, inclusive of Hamilton Senior High School Provision of pedestrian and cyclist access and connectivity Prevention of short cuts by the removal of the western connection to Stock Road and Roe Highway Extension from Forrest Road.	Concept design provides for all movements, with the exception of Roe Highway westbound to Stock Road southbound Project footprint reduced through use of retaining walls in lieu of earthworks batters Third movement added from Stock Road northbound into Ralston Street. Connection west of Stock Road not included Principal Shared Path will be included with connections for local access No connection west of Stock Road.
Design Workshop 3 – North Lake Road to Bibra	Bridge the wetlands (Roe Swamp area) to reduce impact Bridge Horse Paddock Swamp to reduce	Bridge included for consideration in concept design Partial bridging included in concept design

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Design Workshops	Key Issues/Concerns Raised	Influence on Design
Drive Tuesday 1 June 2010 (9am-1pm) Tuesday 1 June 2010 (5.15pm-9pm)	impact Provide an enclosure for the highway through the wetlands area to protect fauna and reduce noise	Fauna studies indicate this is not required. Noise standards indicate walls not required, however will be further assessed in urban design at delivery.

Additional details, such as workshop promotion and process evaluation can be found in Appendix B.

### 2.1.3 Workshop Timing and Venue Selection

Careful consideration was given to the timing of workshops to maximise participation.

#### 2.1.3.1 Workshop Timing

##### *MCA Workshop*

For the MCA workshop, a single session was considered adequate, which presented scheduling issues. These issues included:

- Stakeholders important to the process would likely only attend during business hours;
- Working members of the community may have difficulty attending a week day session due to employment;
- Senior high school students would likely only attend during school hours; and
- An all day session would likely be too long for most potential attendees.

In consideration of these factors, a weekday session was planned to run for no more than a half-day. While this had the potential to eliminate attendance by some members of the community, there was a strong belief that a reasonable cross section of people and a reasonable number would attend. The event was held on Friday 19 February 2010 from 9.00am – 1.00pm.

##### *Design workshops*

The design workshops required a different approach since higher attendance would be more beneficial.

To increase opportunity for participation, two sessions were held for each workshop - a morning session and an evening session. A Saturday morning and Monday evening were chosen for the first workshop, however, this choice was not the best for some stakeholders who preferred to attend workshops during business hours. Since their involvement was important, the second and third workshops were held on weekdays only, again with one morning and one evening session.

#### 2.1.3.2 Venue Selection

The selection of workshop venues was also an important consideration, requiring as much ease of access as possible to a broad area of potential attendees.

Four key elements were used to select workshop venues:

- Located within a reasonable radius of the project area;
- Capacity to accommodate the workshop format and anticipated number of participants;
- Access to public transport; and
- Adequate parking.

The following venues were selected:

- MCA Workshop - Willetton Sports Centre, Burrendah Boulevard, Willetton;
- Design Workshop 1 – Willetton Sports Centre, Burrendah Boulevard, Willetton;

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- Design Workshop 2 – Cockburn Youth Centre, Wentworth Parade, Success; and
- Design Workshop 3 - Retro Chef Function Centre, Gwilliam Drive, North Lake.

Some issues with the lighting at the Willetton Sports Centre had been identified for the MCA Workshop and, although attempts were made to overcome them, they still remained for Design Workshop 1 and were more evident in the evening session. Since this workshop had followed the MCA Workshop by only two weeks, there had not been time to alter the venue.

#### 2.1.4 Option Selection Workshop

The aim of the option selection workshop was to bring stakeholders and South Metro Connect team members together to evaluate identified and viable design options to achieve a sustainable outcome. That is, analysing the options to achieve the best possible balance between environmental, social and economic factors.

Initially it was thought that more than one section of the proposed highway would have multiple viable options that would need to be analysed in this way. However, this was not the case, since the preferred option became apparent as each level of evaluation was undertaken. That is, they either failed or passed evaluation through one or more of the following:

- Project requirements;
- Government regulations; and
- Specialist recommendations.

Only one section, between North Lake Road and Bibra Drive, identified more than one option (see Figures 8 and 9):

- Option 1 - Southern alignment; and
- Option 2 - Northern alignment.



Figure 8: Option 1 - Proposed southern alignment

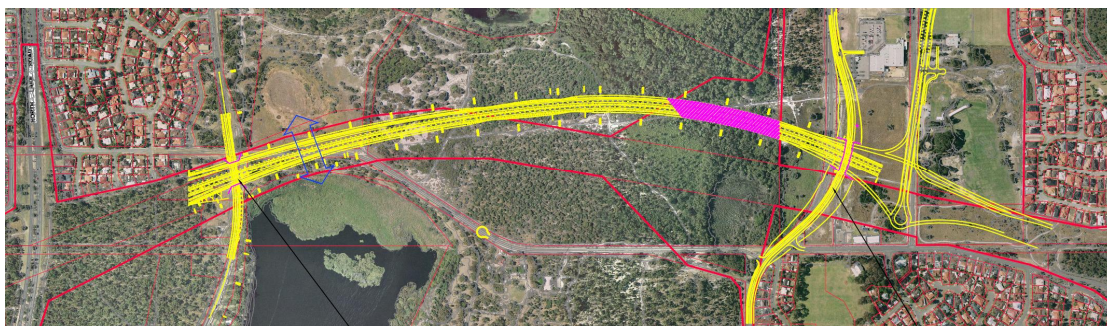


Figure 9: Option 2 - Proposed northern alignment

At the outset, the group discussed the two options to be evaluated and suggested two additional options:

- Option 3 – Northern power line alignment, running along the route of the Western Power line; and

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- Option 4 – Bridge spanning the entire length of the wetlands - full length bridge structure probably running along the northern alignment to allow for the penetration of light, fauna crossing opportunities and unconstrained surface water flow.

These options were added to the process.

After discussing and evaluating each option against the criteria developed from the earlier MCA workshop, the resulting scores indicated a preference for Option 3 – the northern power line alignment.

Stakeholder and community representatives selected Option 3 in their voting. South Metro Connect team members voted separately for comparison only. Voting from both groups showed a preference for Option 3.

It was agreed that the project team would investigate whether this option was viable. This was to include:

- discussions with Western Power regarding the power line corridor and associated issues;
- identification of added impacts on wetlands and vegetation;
- increased cost implications; and
- other associated issues.

Throughout the development of concept designs, the project team continually reviewed likely options against project constraints, government regulations, specialist recommendations and community and stakeholder input, using the same criteria developed at the MCA workshop. In addition, a number of sustainability-focussed team workshops (see Figure 10) were held for the selection of other sections of the design, which resulted in only one option in each case.

While some changes to the concept design could not be accommodated, the process of engaging with the community and stakeholders enabled additional issues and preferences to be considered in determining the preferred concept design and alignment option.

For further details, refer to the Option Selection (MCA) Workshop report in Appendix C.

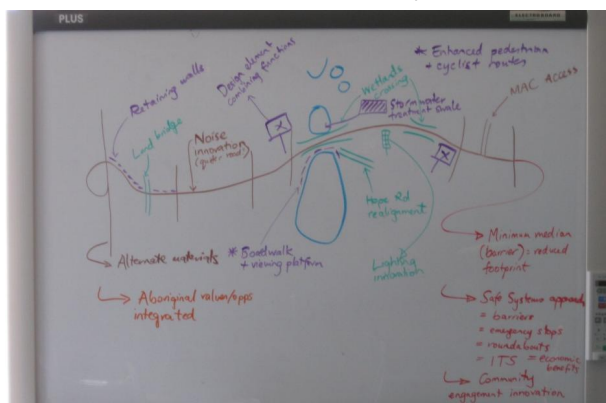


Figure 10: Whiteboard notes from an internal sustainability workshop

#### 2.1.4.1 Option Selection Workshop Participation

The evaluation group was made up of:

- Community representatives;
- Stakeholder representatives; and
- Local government representatives.

South Metro Connect team members provided project information to assist the group and answered questions as they arose.

Table 3 shows the list of participants at the Option Selection Workshop.

Table 3: List of participants at the Option Selection Workshop

	Group participant	Organisation	
1	N Campbell	Community	Community and Stakeholders
2	R Grieve	Community	

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	Group participant	Organisation	
3	R Hannan	Community	
4	C Medlycott	Community	
5	J Reddyhough	Community	
6	E Wajon	Community	
7	T Weeks	Community	
8	D Watson	Community	
9	T Phelan	Community	
10	D Balraj	Department of Transport	
11	J Harrison	Department of Planning	
12	C Beaton	City of Cockburn	
13	J Cameron	City of Melville	
14	C Fitzhardinge	South West Group	
15	M Posa	Murdoch Pines	
16	B Pye	Fremantle Port Authority	
17	J Tedesco	Bibra Lake Residents Association	
18	A DeKlerk	South Metro Connect	Project Team
19	M Hazebroek	South Metro Connect	
20	T Pearce	South Metro Connect	
21	T Loudon	South Metro Connect	
22	J Shaw	South Metro Connect	
23	G Gelok	South Metro Connect	
24	N Westmacott	South Metro Connect	
25	K Honczar	South Metro Connect	
26	M Rajakaruna	South Metro Connect	
27	L Stone	South Metro Connect	
28	L Pike	Workshop Facilitator	

### 2.1.5 Targeted Stakeholder Meetings

While the public workshops and other engagement activities were being undertaken, meetings were held with previously identified key stakeholders who were likely to be directly impacted by the proposed Project, and specifically, the southern connection to the Murdoch Activity Centre. (The Murdoch Activity Centre will include the Fiona Stanley Hospital, scheduled to open in 2014.) Key stakeholders were invited to attend all community workshops. A summary of the key stakeholders and their issues is presented in Table 4.

**Table 4: Summary of key impacted stakeholders and issues**

Key stakeholders	Stakeholders issues
City of Cockburn	<ul style="list-style-type: none"> <li>– Impact on access and connectivity</li> <li>– Western connection from Stock Road to Forrest Road not desired</li> <li>– Southern connection to the Murdoch Activity Centre and related land use</li> <li>– Local road impacts and connectivity to Roe Highway Extension</li> <li>– Social impact including noise and loss of amenity</li> <li>– Continued access to community facilities on Hope Road including Cockburn Wetland Education Centre, Native ARC and Scout facilities</li> </ul>
City of Melville	<ul style="list-style-type: none"> <li>– Southern connection to the Murdoch Activity Centre</li> <li>– Potential traffic reduction on Leach Highway and South Street</li> <li>– Potential heavy vehicle reduction on Leach Highway</li> </ul>
Department of Environment and Conservation	<ul style="list-style-type: none"> <li>– Impact on Beeliar Regional Park wetlands</li> <li>– Impact on flora and fauna in general</li> </ul>
Department of Sustainability, Environment, Water, Population and Communities	<ul style="list-style-type: none"> <li>– EPBC Act triggers management and offsets</li> </ul>
Aboriginal Groups	<ul style="list-style-type: none"> <li>– Impact on registered heritage sites</li> </ul>
Murdoch University	<ul style="list-style-type: none"> <li>– Loss of land required to accommodate Murdoch Drive Extension</li> <li>– Impact on grazing land for veterinary studies due to loss of land</li> </ul>
The Spanish Club	<ul style="list-style-type: none"> <li>– Loss of or relocation of land requirement and associated viability of the club</li> <li>– Need to retain two soccer fields</li> <li>– Impact on car parking facilities</li> <li>– Access to the club</li> </ul>
Murdoch Pines Golf and Recreation Park	<ul style="list-style-type: none"> <li>– Loss of land requirement to continue operation of the driving range</li> <li>– Impact on car parking facility</li> <li>– Viability of the facility</li> <li>– Access to the facility</li> </ul>
Lakeside Recreation Centre	<ul style="list-style-type: none"> <li>– Impact on car parking facilities</li> <li>– Access to the centre</li> </ul>
Blue Gum Montessori School	<ul style="list-style-type: none"> <li>– Access to and from the school</li> <li>– Access to and from the school during construction</li> <li>– Noise impact during construction and operation</li> </ul>
Hamilton Senior High School	<ul style="list-style-type: none"> <li>– Access to and from the school</li> <li>– Student transfer between schools and associated access</li> <li>– Access to and from the school for emergency services</li> <li>– Safe pedestrian access for students across Stock Road during construction and operation</li> </ul>

## 2.2 Feedback on Design Changes Influenced by the Community

As each section (focus area of each design workshop) of the concept design was revised, brochures were created that would provide feedback to the community on what had changed due to their influence.

The design of the section of the proposed Roe Highway Extension between Kwinana Freeway and Bibra Drive (Design Workshop 1) includes the southern connection to the Murdoch Activity Centre and the Kwinana Freeway/Roe Highway interchange, making this section significantly more complex than others. As a consequence, it was divided into two to simplify explanation. Four feedback brochures were therefore produced

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in total for the three workshops. They were distributed by mail to neighbouring residents and stakeholders, and published on the project website.

Where the proposed concept design indicated likely or perceived likely impact on specific groups, direct contact was made via mail and/or meetings. One specific example of this was related to changes at Allendale Entrance, North Lake that resulted from issues expressed at Design Workshop 1 regarding the realignment and extension of Murdoch Drive.

Throughout the project development phase, regular project updates were provided via publications in local community newspapers, including:

- Fremantle/Cockburn Gazette;
- Melville Times;
- Canning Times; and
- Weekend Courier (Kwinana).

These updates were also published on the project website ([www.southmetroconnect.com.au](http://www.southmetroconnect.com.au)) and distributed to subscribers of project information via email.

Meetings with stakeholders also gave an opportunity to provide updated details of project progress.

## 3.0 Methods of Communication

Various methods of communication were adopted to ensure multiple methods were available to reach the broader community, keeping in mind that people have differing preferences. Methods used are included in Table 5.

**Table 5: Methods of Communication**

Methods of communication	Purpose
Information days	Create awareness of the project and provide updated information on project status. An opportunity for discussion with the South Metro Connect Team.
Website	Project specific website established to provide a centre for project information and specific resources such as: Project View, a GIS mapping tool; information sheets and other publications; workshop outcomes; a link to the online discussion forum and an enabler for subscriber email updates.
Online forum	Online discussion forum established to supplement engagement process by enabling broader interest groups to get involved. Forums preceded and overlapped design workshops to obtain information from those who may otherwise not make comment, or be unable to attend the workshops in person.
Project updates	Project updates, published in community newspapers, to keep the broad community informed of project progress.
Information sheets	Various information sheets produced to provide information on specific topics.
Design workshop feedback brochures	Feedback brochures produced to provide commentary on the progress of concept designs, particularly in relation to received community comments.
Direct mail	Direct mail used to promote public information days, workshops and distribution of feedback brochures and design information.
Hotline	Hotline established for general enquiries about the project.
Shop front	Shop front established at project office to enable project information to be displayed and made available to visitors and to provide a venue for face-to-face enquiries.
Email enquiry	Email enquiry address established for general enquiries about the project.
Meetings	Meetings with key stakeholder groups, residential and industry groups were held throughout the project

A list of the project's publications can be found in Appendix D.

### 3.1 Online Discussion Forum

The online discussion forum was established to provide an alternative medium for people to make comment on the Project at their convenience. The forum could be accessed directly or via the website link.

Several forum questions were created, some general and some directly related to the design workshops. The first two were published on 20 October 2009 at the start of the engagement activities and continued throughout. These questions were:

- 1) How can we be sure that everybody has a chance to be heard and their interests understood? Please tell us how you would like to be involved (14 comments were received).
- 2) What issues regarding this road project are most important to you? Please tell us what matters most to you (146 comments were received).

The Multi Criteria Analysis and design workshops were preceded by an online forum with the aim of encouraging feedback from members of the community and stakeholders who would likely not attend the workshops or otherwise not make comment. The online forum topics for the workshops and the associated number of visitors and comments are shown in Table 6.

**Table 6: Online forum topics for workshops**

Workshop forum topics	Registered visitors	Comments
Multi Criteria Analysis: What factors should be considered in assessing design options for the Roe Highway Extension? (Launched 21 December 2009)	14	17
Multi Criteria Analysis: Based on your values, how would you rank the following factors for the design of the proposed Roe Highway Extension? (Launched 19 January 2010)	11	16
Design Workshop 1: What options would you like us to explore when considering the section from Kwinana Freeway to Bibra Drive? (Launched 27 February 2010)	10	15
Design Workshop 2: What changes would you like to make to the Stock Road to North Lake Road drawing and why? (Launched 19 April 2010 / closed 11 June 2010)	12	15
Design Workshop 3: What changes would you like to make to the North Lake to Bibra Drive drawing and why? (Launched 26 May 2010 / closed 26 June 2010)	8	8

Note: visitors were required to register to comment.

The online forum service provider was 'Bang the Table'. The service included independent mediation to ensure participants complied with the rules of engagement, which they agreed to on registration, and stayed on topic.

### 3.2 Information Days

Held in October 2009, the first information day was aimed at creating awareness of the Project, the project team and associated contact details. Additionally, this was an opportunity to commence the receipt of community comments and to identify topics of importance. More than 600 people attended.

The second information day followed the MCA workshop and first design workshop. The aim was to provide feedback to date and continue the process of building awareness. Significantly less (approximately 80) attended this event. Further details of these events can be found in Appendix E.

A third information day is planned to occur during the 12-week PER public comment period, expected to commence mid-2011.

### 3.3 Success of Communication Methods

The use of multiple communication methods during the engagement process provided greater confidence in disseminating Project information and invitations to Project events. The success of this approach is indicated by the diversity of attendance at workshops and the origin of enquiries received.

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Brochures providing feedback on changes to the concept design that had been influenced by members of the community and stakeholders through the workshops and direct communication, triggered enquiries and contacts from newcomers to the engagement process.

Other feedback, such as workshop outcomes, the public opinion survey report and MCA workshop results were made available on the website.

Further feedback will be provided on new or specific issues as required and the project team remains available to respond to enquiries.

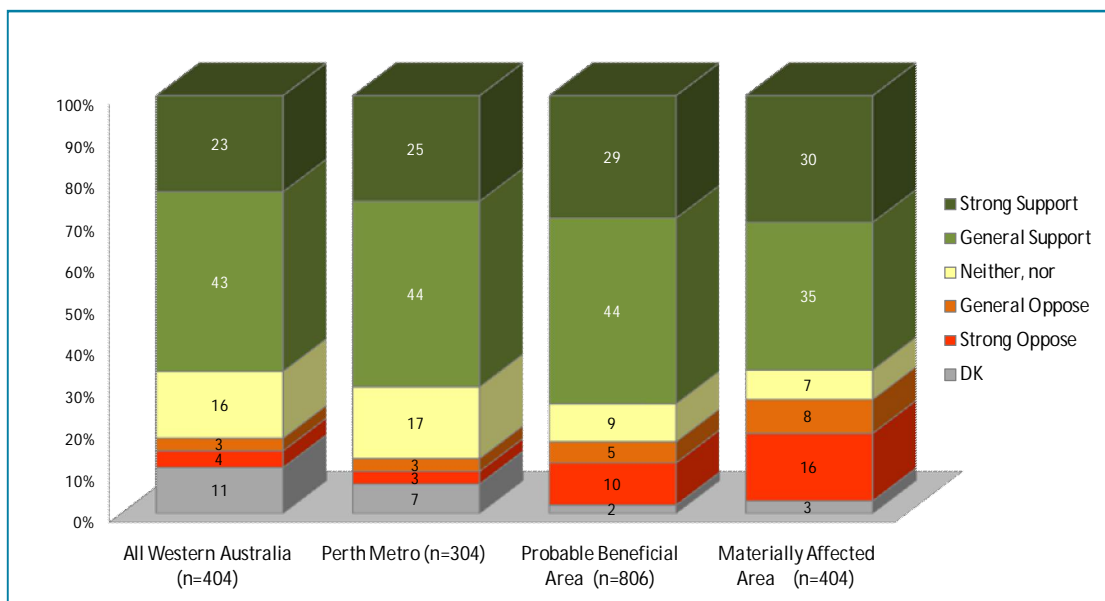


## 4.0 Public Opinion Survey

A public opinion survey was undertaken in October 2009 preceding the first community event to:

- Obtain an indicative baseline of support versus opposition for the proposed Roe Highway Extension;
- Understand the level of awareness of the proposed Roe Highway Extension; and
- Understand key issues related to the support or opposition of the proposed Roe Highway Extension.

The results of the survey indicated a greater level of support for the proposed Roe Highway Extension in the broader south metropolitan area, but increasingly more opposition closer to the area of the road reserve. It also indicated that respondents were concerned about impact on the environment, even in many cases when they were in support of the project (see Figure 11).

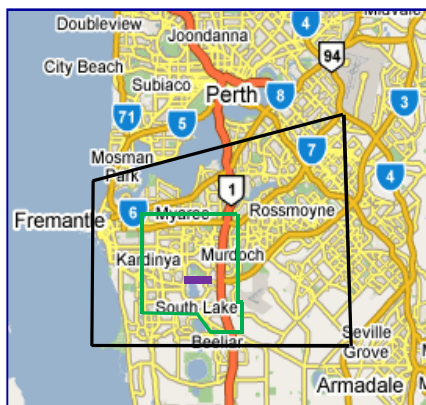


**Figure 11: Graph showing level of support or opposition from survey sample**

The Probable Beneficial Area is represented by the area within the black line in Figure 12.

The Materially Affected Area is represented by the area within the green line in Figure 12.

Details of the public opinion survey can be found in Appendix F.



**Figure 12: Main survey sample boundaries**

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## 5.0 Conclusion

The overall engagement process for the project played an important role in identifying key issues and community values, which in turn helped guide the option selection process to identify a preferred design and alignment option within the given project boundaries. Aligning this process with the project development phase and development of the PER documentation provided the best opportunity for community and stakeholder influence.

Many concerns that encompassed design, social, environmental and economic issues were raised during the engagement process. These concerns also included specific issues related to construction and operation and while the latter in most cases have not been specifically addressed in this stage of the Project, they have been recorded for later consideration.

Through community and stakeholder involvement, the strong desire to protect the environment as much as possible has been reinforced. This desire, and the need to minimise social impact, has been a high influence on the proposed design. The work undertaken has been in accordance with government commitments.

*“The State Government recognises the value of the natural environment in the vicinity of the project. The high level of innovative design solutions and construction techniques to be implemented on this project will set new benchmarks for Main Roads.”*

*The work of the South Metro Connect team and the future construction of the Roe Highway extension will result in less freight and passenger vehicles and congestion on Leach Highway and Kwinana Freeway.*

*The Roe Highway extension also provides improved access to the Fremantle Inner Harbour and excellent access to the future Outer Harbour, the James Point Facility and the expanding Kwinana Industrial Area.”* (Simon O'Brien, Minister for Transport – Media Statement 19-08-2010: South Metro Connect to set new benchmarks in environmental planning, standards, and community engagement)

The community engagement process was initially met with some scepticism, with some community members questioning the value of the process throughout the project development phase. Indications regarding the latter appeared to be a result of there not being alternate alignment options and a 'no build' option for consideration. Given this, workshop participants included supporters and opponents alike, which was valuable to the process.

It takes time, effort and communication to build trust in an engagement process that is not seen as merely a 'tick in the box' exercise, but instead a process where people can see how they have influenced change. There is now a need to complete the process by including changes into a final product to maintain this trust.

Key issues identified in the engagement process are outlined below.

### 5.1 Design and Alignment Issues

The majority of issues expressed in relation to the proposed design and alignment were centred on:

- Kwinana Freeway/Roe Highway interchange;
- Southern access to the Murdoch Activity Centre;
- Stock Road/Roe Highway interchange;
- Impact on local residents;
- Maximum protection of the environment;
- Not being able to debate alternative alignments; and
- A 'no build' ('No Roe') option.

### 5.2 Social Issues

A significant section of the proposed highway alignment passes over environmentally sensitive areas that are valued by the community. These areas include a section on the Hope Road alignment between North and Bibra lakes. Local communities and visitors use this area for recreation and it is also used by schools, tertiary

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institutions and community educational facilities for education purposes. Some local residents have invested personal time and money into the environment of the area, and understandably, are passionately in support of its preservation.

While there are also supporters of the project in the local area, the majority are from outside, particularly in areas currently negatively affected by traffic congestion and heavy transport movements along Leach Highway, South Street, Kwinana Freeway and earlier stages of Roe Highway.

### **5.3 Aboriginal Heritage Issues**

The area encompassing North and Bibra lakes is a listed Aboriginal ethnographic heritage site and lies in the Beeliar Regional Park. It is within the traditional lands of the Noongar people, for whom much of it provided campsites, birthing places and hunting and gathering facilities.

An Aboriginal archaeological site, which is currently impacted by Hope Road, lies between the lakes.

Aboriginal heritage consultation is being undertaken as a separate activity to the process discussed in this report.

### **5.4 Environmental Issues**

The proposed highway alignment is located in a road reserve that was set aside more than 40 years ago and as such the majority of this land still holds environmental significance.

Irrespective of support of or opposition to the project, there was significant importance placed on preserving as much of the natural environment as possible, such as retaining green corridors alongside the highway, and protection of the environment to ensure the ongoing existence of native flora and fauna.

### **5.5 Economic Issues**

There is growing congestion on major roads surrounding the project area that significantly adds to travel time, air emissions and transport costs. With population in the southern metropolitan area expected to rise, and with projected increases in freight transport, this congestion will continue to grow. It is an issue that will continue to impact on the area unless it is addressed.

The road reservation has presented many challenges to address both environmental and social issues, and as such, several sections of the road infrastructure are very complex. In addition to four interchange structures that include the southern connection to the Murdoch Activity Centre, it is anticipated that additional structures will be required over conservation wetlands to ensure hydrological and fauna connectivity. This and other proposals to reduce construction impacts are likely to result in an expensive option.

### **5.6 Process Issues**

The basis for opposition to the project is varied, but among those who oppose there is strong belief that there should be consideration of alternate routes or a 'no build' option, neither of which were included in the scope of project development activities. For some, there was a belief that as a consequence, community engagement was invalid.

At all times, the engagement process was open to all interested parties. It was, therefore, pleasing to know that opponents and supporters alike entered into the engagement process to discuss their issues, often contributing to design implications so that their concerns could be included in design evaluation.

Recording of comments submitted at workshops was an important part of the process.

### **5.7 Preferred Option**

The preferred concept design option, which has included comments and suggestions from the community and stakeholders, will form the basis for the PER. Ultimately, the preferred option will be submitted to the Minister for Transport for final approval.

## **5.8 Ongoing Engagement**

Engagement will continue with individual stakeholders, who will be impacted if the project proceeds. Engagement with others will proceed as required throughout the public comment period although at a reduced level. Members of the project team will, however, be available to provide information, and an information day during the PER public comment period is proposed.

## **5.9 Progress to Delivery Phase**

Included in the design workshop comments received are concerns related to the detailed design and construction phases (delivery phase). These comments were captured for transfer to the delivery phase to ensure they are adequately addressed.



## Appendix A

# MCA Workshop – Promotion, Representation and Process Evaluation

## Appendix A MCA Workshop – Promotion, Representation and Process Evaluation

### Event Promotion

Promotion of the event was undertaken to attract members of the community and stakeholders from a broad area including those from within the local government localities of:

- Cockburn;
- Melville;
- Fremantle;
- Canning; and
- Kwinana.

Methods of promotion are included in the table below.

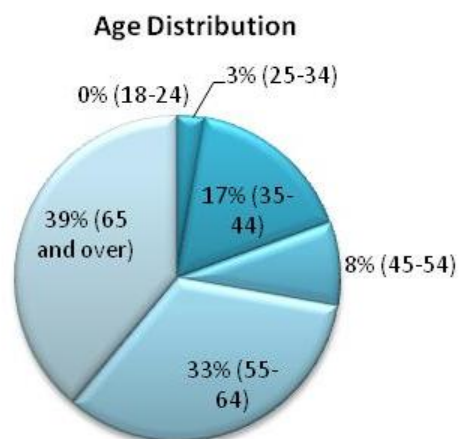
Multi-Criteria Analysis / Options Selection Workshops	Venue	Target audience	Number Attending	Intended outcome	Communication method(s)
MCA Criteria Workshop Friday 19 February 2010 (9am-1pm)	Willetton Sports Centre, Willetton	Stakeholders and individuals who represented social, environmental and economic interests. Triple bottom line outlook.	68	Create discussion that would enable community and stakeholder values to be shared and prioritised for the development of criteria to be used in the Multi-Criteria Analysis process for option selection	Advertisements placed in The West Australian Community Newspaper Group (Fremantle/Cockburn Gazette, Melville Times, Canning Times, Weekend Courier) Project Update published in: Community Newspaper Group (Fremantle/Cockburn Gazette, Melville Times, Canning Times, Weekend Courier) Published on the website Disseminated to email subscribers Website Stakeholder invitations

### Representative Attendance

Important to the process was broad representation from the community and key stakeholders as well as reasonable representation of gender and age distribution. Since workshop registrations did not go beyond the capacity of the venue there was no requirement to use gender and age identification to restrict numbers however, it was noted that there was no representation from younger people. As a consequence direct invitations were made to high schools and tertiary institutions in the area, which resulted in attendance by several senior students from Hamilton Senior High School and Murdoch College. No students attended from tertiary institutions.

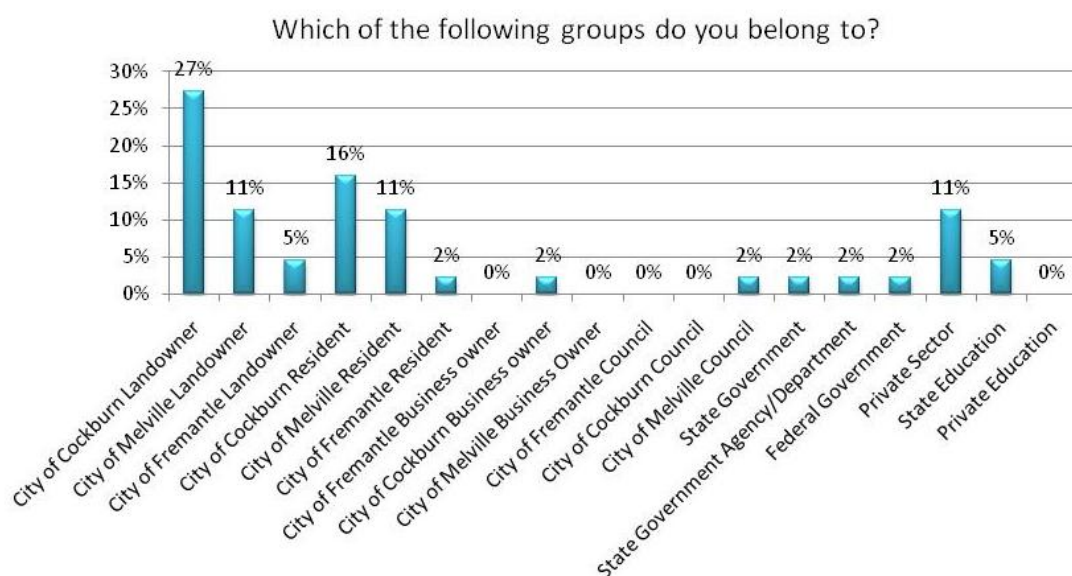
Gender distribution was reasonably balanced with 44% female and 56% male.

Age distribution is shown in the chart below. However this does not include high school students, who were under 18 years of age.

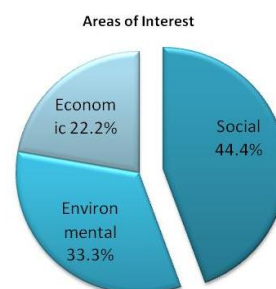


The registration process also asked for information on community / stakeholder origin and areas of interest.

The majority of participants were mainly landowners, residents or business owners from the City of Cockburn (45%), followed by a high percentage of landowners and residents from the City of Melville (22%).



Respondents were asked a general question to rate their most area of interest from the triple bottom line factors; social, environmental and economic. Responses indicated that social issues were of highest importance to the workshop participants, followed by environmental (33.3%) and then economic issues (22.2%).



important  
(44.4%)

## Process Evaluation

The results indicated that:

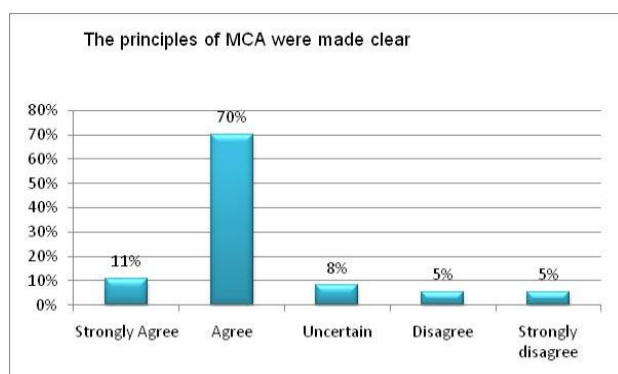
- Participants were satisfied with the workshop as a whole.
- Participants were uncertain about the way in which their contributions on the day would be incorporated into the design process.
- The majority agreed that the MCA principles were made clear.
- 91% of participants were satisfied with the facilitators.

## General Satisfaction



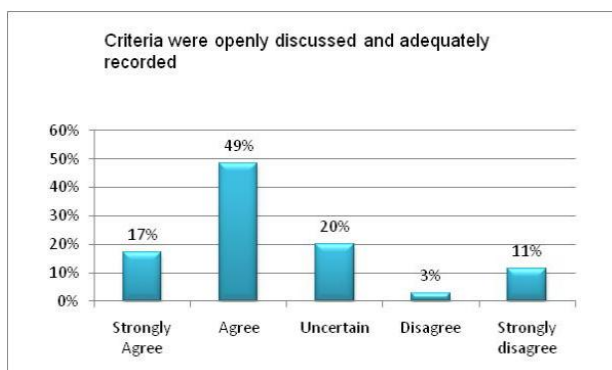
72% percent of the workshop participants were either satisfied or highly satisfied with the general proceedings of the workshop (see below).

## Workshop Principles



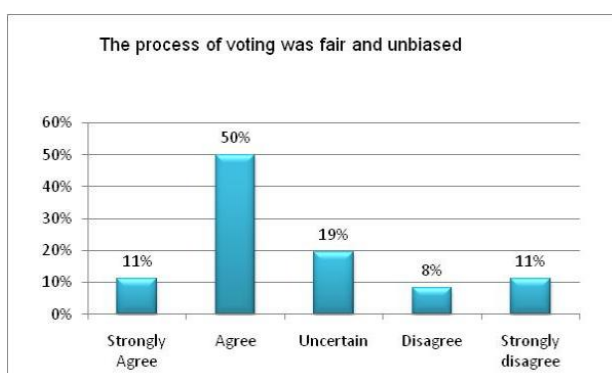
81% of participants agreed that the principles of the MCA were made clear.

## Discussion and Recording



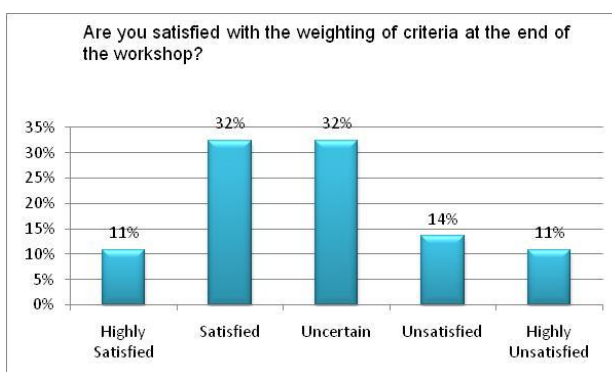
20% of participants were uncertain about whether the criteria had been openly discussed and recorded. Overall, however, 66% of participants agreed that the criteria were openly discussed and recorded.

## Voting Process



A slightly lower rate of 61% agreed that the process of voting was fair and unbiased, leaving 19% who were uncertain and 19% who disagreed.

## Weighting Criteria



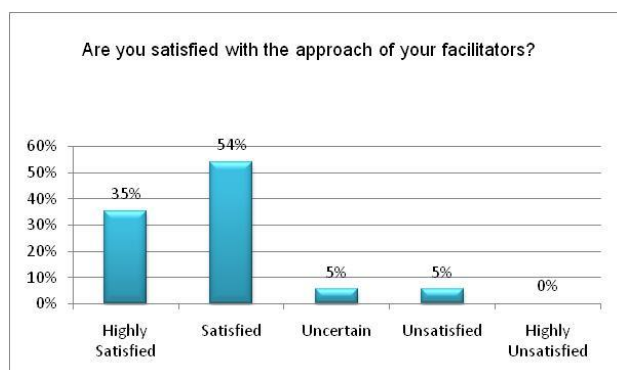
Satisfaction levels associated with the weighting of criteria were more broadly distributed with a high level of uncertainty (32%). Of the remainder 43% were satisfied or highly satisfied and 25% unsatisfied or highly unsatisfied. This can be attributed to specific circumstances on the day not enabling completion of the weighting process.

Significantly more values were listed than expected making real time data entry a significant process. In addition, the printing facilities at the venue were found to be inadequate. Consequently there was not enough time to work with the group to combine

repetitious listings and to then properly weight the outcomes.

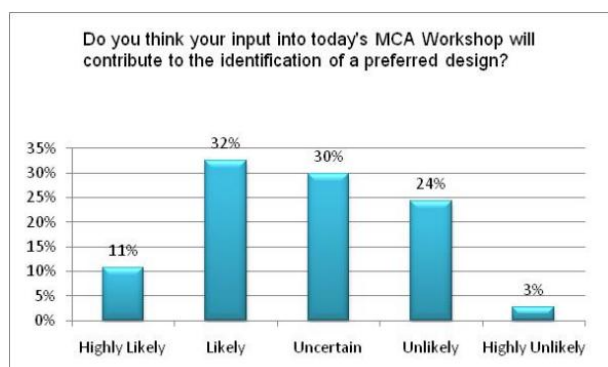


## Facilitators



The majority (89%) of participants were satisfied with the approach of the facilitators with 35% highly satisfied, and 54% satisfied.

## Contribution to the decision making process



57% of participants were either uncertain or thought that it was unlikely that their input would contribute to the identification of a preferred design.

The participants in the workshop were asked to comment on any areas of the workshop they thought needed improving.

The key themes and recommendations to emerge from these comments were:

Key theme	Participants' Comments
Voting	<ul style="list-style-type: none"> <li>- Provide a more organised voting system</li> <li>- Provide more voting time (to reduce the pressure to vote quickly)</li> <li>- The need for confidential voting</li> </ul>
Criteria	<ul style="list-style-type: none"> <li>- The criteria wording was occasionally unclear</li> <li>- The criteria were duplicated</li> </ul>
Decision-making scope	<ul style="list-style-type: none"> <li>- There should be a 'No Roe' option</li> </ul>
MCA process	<ul style="list-style-type: none"> <li>- The results were preordained</li> </ul>
Workshop materials	<ul style="list-style-type: none"> <li>- The lighting and audio was poor</li> <li>- The projector/slideshow was not clear</li> </ul>
Facilitators	<ul style="list-style-type: none"> <li>- Some facilitators did not record criteria properly</li> </ul>

# Design Workshops - Summary of Attendance, Promotion and Process Evaluation

## Appendix B Design Workshops - Summary of Attendance, Promotion and Process Evaluation

### Summary of Attendance

All workshops were attended by supporters and opponents and each workshop received conflicting comments on whether the Project should or should not proceed. A decision on the latter was outside the project scope.

**Table 7: Summary of Design Workshops 1, 2 and 3**

Design Workshops	Dates Held	Number Attended	Number Comments Received
Design Workshop 1 – Kwinana Freeway to Bibra Drive (including southern connection to Murdoch Activity Centre)	Saturday 6 March 2010 (9am-1pm) Monday 8 March 2010 (5.15-9pm)	79 am = 44 pm = 35	650
Design Workshop 2 – Stock Road to North Lake Road (includes an interchange with full movement at North Lake Road)	Tuesday 4 May 2010 (9am-1pm) Tuesday 4 May 2010 (5.15pm-9pm)	72 am = 47 pm = 25	280
Design Workshop 3 – North Lake Road to Bibra Drive (includes passage across areas of environmental significance)	Tuesday 1 June 2010 (9am-1pm) Tuesday 1 June 2010 (5.15pm-9pm)	108 am = 54 pm = 54	376

Representatives from the Save Beeliar Wetlands Group were in attendance outside each design workshop and handed out leaflets. A few participated in the workshops. A protest occurred outside the final workshop. A number of protesters wandered into the workshop to observe activities.

### Event Promotion

Using multiple media and communication was essential in the promotion of the workshops to ensure community members and key stakeholder groups, including government departments, community groups, local businesses and schools were targeted. Workshops were therefore promoted in a number of different ways including,

- Advertisements in newspapers;
- Notices in Project Update published in community newspapers;
- Letters of invitation distributed via community newspapers, direct mail and to email subscribers;
- Direct contact with key stakeholders; and
- Promotion via the South Metro Connect Website.

The letters of invitation distributed via community newspapers, a method used for the first workshop, was substituted for direct mail within the area surrounding the workshop discussion area for the second and third workshops. This change resulted from feedback that some people did not receive the community newspaper, but had fortunately heard about the workshop from others and had subsequently followed up with the project team.

Design Workshops	Venue	Target audience	Number Attended	Objective	Communication method(s)
Design Workshop 1 – Kwinana Freeway to Bibra Drive Saturday 6 March 2010 (9am-1pm) Monday 8 March 2010 (5.15-9pm)	Willetton Sports Centre, Willetton	Residents and stakeholders in the area between Bibra Drive and Karel Avenue and between Farrington Road and North Lake Road Key stakeholder groups Other interested parties	79 am = 44 pm = 35	Presentation of concept design to generate discussion and provide an opportunity for participants to get clarification and to raise concerns	Advertisements placed in: The West Australian Community Newspaper Group (Fremantle/Cockburn Gazette, Melville Times, Canning Times, Weekend Courier) Community invitation inserts via Community Newspaper Group (Fremantle/Cockburn Gazette, Melville Times, Canning Times) Project Update published in: Community Newspaper Group (Fremantle/Cockburn Gazette, Melville Times, Canning Times, Weekend Courier) Published on the website Disseminated to email subscribers Stakeholder invitations Website
Design Workshop 2 – Stock Road to North Lake Road Tuesday 4 May 2010 (9am-1pm) Tuesday 4 May 2010 (5.15pm-9pm)	Cockburn Youth Centre, Success	Residents and stakeholders in the area between North Lake Road and Stock Road Key stakeholder groups Other interested parties	72 am = 47 pm = 25	Presentation of concept design to generate discussion and provide an opportunity for participants to get clarification and to raise concerns	Advertisements placed in: The West Australian Community Newspaper Group (Fremantle/Cockburn Gazette, Melville Times, Canning Times, Weekend Courier) Community invitation inserts via Community Newspaper Group (Fremantle/Cockburn Gazette, Melville Times, Canning Times) Project Update published in: Community Newspaper Group (Fremantle/Cockburn Gazette, Melville Times, Canning Times, Weekend Courier) Published on the website Disseminated to email subscribers Stakeholder invitations Website

Design Workshops	Venue	Target audience	Number Attended	Objective	Communication method(s)
Design Workshop 3 – North Lake Road to Bibra Drive Tuesday 1 June 2010 (9am-1pm) Tuesday 1 June 2010 (5.15pm-9pm)	Retro Chef Function Centre, Bibra Lake	Residents in the locality of Bibra Lake and North Lake Key stakeholder groups Other interested parties	108 am = 54 pm = 54	Presentation of concept design to generate discussion and provide an opportunity for participants to get clarification and to raise concerns	Advertisements placed in: The West Australian Community Newspaper Group (Fremantle/Cockburn Gazette, Melville Times, Canning Times, Weekend Courier) Community invitation inserts via Community Newspaper Group (Fremantle/Cockburn Gazette, Melville Times, Canning Times) Project Update published in: Community Newspaper Group (Fremantle/Cockburn Gazette, Melville Times, Canning Times, Weekend Courier) Published on the website Disseminated to email subscribers Stakeholder invitations Website

## Process Evaluation

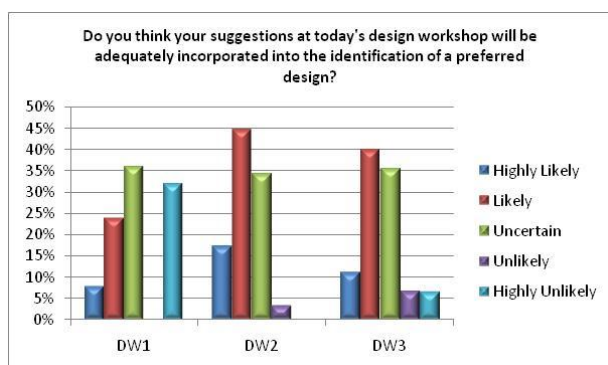
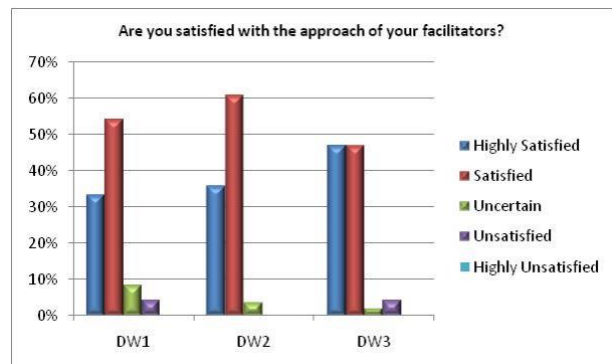
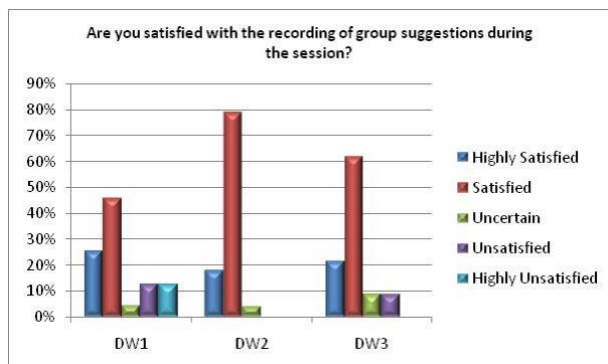
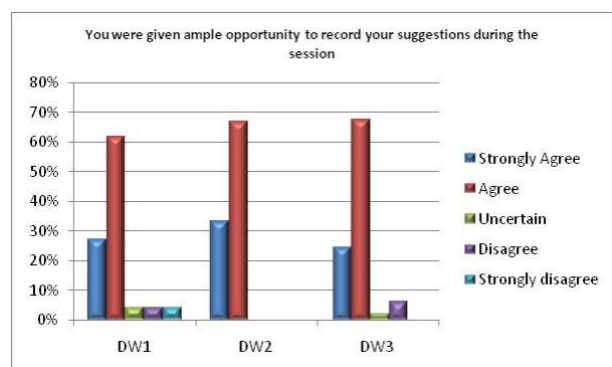
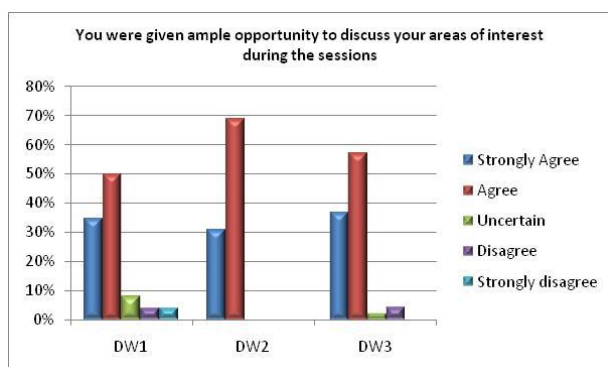
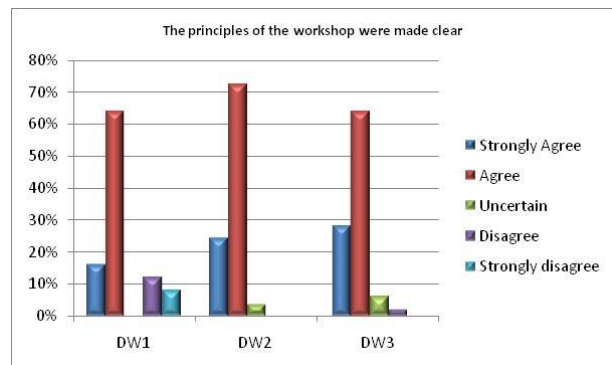
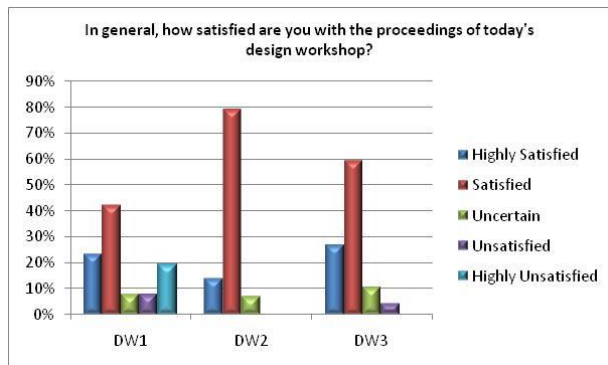
At the end of each workshop participants were asked to complete a process evaluation sheet.

In general there was a high level of satisfaction for the process across all three workshops with Design Workshop 1 showing the most variation in responses.

The results indicated that:

- Level of satisfaction in the process, although generally high, was less in Design Workshop 1;
- There was general agreement that participants were given ample opportunity to discuss their areas of interest and to record their suggestions during the sessions;
- There was less satisfaction with the recording of group suggestions at Design Workshop 1 than the following two workshops;
- There was general satisfaction with the approach of table facilitators; and
- There was a higher level of confidence in suggestions being incorporated into the design at Design Workshops 2 and 3 than at Design Workshop 1; however uncertainty remained at approximately 36% at all three workshops.





The general outcome was positive in all cases, however some participants questioned the overall engagement process, particularly given that there was only one route option to consider. It was considered that a no build ('No Roe') option should be debated, however this decision was outside the scope of the project team.

# Multi-Criteria Analysis Workshop

## Appendix C Multi-Criteria Analysis Workshop

The following Executive Summary and Conclusion is an extract from the Roe Highway Extension: Bibra Drive to North Lake Road Section MCA Workshop Report.<sup>3</sup>

### Executive Summary

South Metro Connect (SMC) held its second Multi Criteria Analysis (MCA) Workshop on Tuesday 29 June 2010 in collaboration with a community and stakeholder MCA Group. The scope of the workshop was to select the most sustainable design option for the central section of the proposed Roe Highway Extension between Bibra Drive and North Lake Road.

The MCA Group discussed and scored four viable options for the central section of the proposed project:

- **Option 1** - a northern alignment option.
- **Option 2** - a southern alignment option.
- **Option 3** - a northern option derivative running along the Western Power line route, and
- **Option 4** - a full length bridge structure probably running along the northern alignment to allow for the penetration of light, fauna crossing opportunities and unconstrained surface water flow.

The options were assessed in accordance with SMC's triple bottom line sustainability framework. The participants scored each of the four options against environmental, social and economic criteria established and weighted by the community and stakeholders during the first MCA Workshop on 19 February 2010. The final scores for each option were calculated by applying the criteria weightings to the median individual scores. A normalisation factor was then used to convert the scores to a figure out of 1000.

Workshop participants discussed and reviewed the assessment and agreed that a northern alignment that mostly follows the Western Power corridor is preferred. It was noted that geometrically it is not possible to follow the entire length of the power line corridor between Bibra Drive and Progress Drive, but the alignment can follow the majority of the corridor and still comply with relevant design standards.

At the conclusion of the workshop the group proposed that the SMC team give consideration to:

- Further developing a northern alignment option that follows the existing Western Power corridor to the greatest extent possible.
- Extending the lower speed zone (currently proposed from Karel Avenue to Bibra Drive) slightly further west to tighten the geometry further.
- Maximising use of the existing power line corridor with SMC working through the detail and advantages.
- Setting a governing goal to maximise the cleared Western Power footprint whilst ensuring that the melaleuca woodland is not affected. This should be done by challenging the design standards to follow the power line as much as possible.
- Running the existing power lines underground between Bibra Drive and Progress Drive.
- Extending the length of the Roe Swamp structure to the greatest extent possible and at least 30m longer than that shown in the SMC northern option to minimise the impact on the Conservation Category wetland and reflect the topography.
- Separating the Horse Paddock Swamp structure from the Progress Drive structure to reflect human and fauna requirements and to add aesthetic appeal. It is noted that there are likely to be more social issues than environmental issues in this area.
- Revegetating and rehabilitating Horse Paddock Swamp with appropriate (two or three) fauna links that are suitably vegetated.

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<sup>3</sup> South Metro Connect, 2010b. *Roe Highway Extension: Bibra Drive to North Lake Road Section Multi Criteria Analysis Workshop Report, Tuesday 29<sup>th</sup> June 2010.*

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South Metro Connect, a partnership between Main Roads and AECOM for the project development phase of the Roe Highway Extension

AECOM Australia Pty Ltd

ABN 20 093 846 925

- Including a number of culverts (two or three) as fauna crossing opportunities at relevant locations.
- Adopting a speed zoning of no greater than 80km/h for the full length of this section.
- Opening up connectivity around Progress Drive as much as possible.
- Realigning Hope Road west of Bibra Drive to connect with Bibra Drive at the existing Parkway Road intersection, and
- Rehabilitating the area south of Hope Road with renewal and regeneration of the Hope road alignment following the change above.

Feedback forms were distributed at the close of the workshop to provide the participants with an opportunity to rate various aspects of the workshop and MCA process. The analysis of these forms indicates that 91% of the participants were satisfied with the proceedings of the workshop.

## Conclusion

SMC held its second MCA Workshop with a community and stakeholder MCA Group on 29 June 2010 to assess a number of viable design options for the central section of the proposed Roe Highway Extension between Bibra Drive and North Lake Road. The group had the task of selecting the preferred design option for the central section of the proposed highway by assessing each option against the triple bottom line criteria established at the original MCA Workshop on 19 February 2010.

The group assessed four viable options during the MCA workshop:

- **Option 1** - a northern alignment option.
- **Option 2** - a southern alignment option.
- **Option 3** - a northern option derivative running along the Western Power line route, and
- **Option 4** - a full length bridge structure probably running along the northern alignment to allow for the penetration of light, fauna crossing opportunities and unconstrained surface water flow.

The MCA Group discussed and reviewed the four options and agreed that **Option 3** – a northern alignment option derivative running along the Western Power line route, is the preferred option.

**Option 3** has since been reviewed by SMC and incorporated into the overall design of the proposed Roe Highway Extension. The preferred design will be submitted to the Environmental Protection Authority for assessment and Public Environmental Review.



## Appendix D

# Publications Issued

## Appendix D Publications Issued

### Feedback Brochures

- Bibra Lake/Murdoch Chase Residents Update
- Bibra Drive to North Lake Road Section
- Stock Road to North Lake Road Section

### Information Sheets

- Project Overview
- Regional Information and Project Justification
- Frequently Asked Questions
- South Metro Connect – Our Role
- The Design Development Process
- Design Inputs – Studies & Fieldwork (Overview)
- Design Inputs – Studies & Fieldwork (Water)
- Design Inputs – Studies & Fieldwork (Fauna)
- Design Inputs – Studies & Fieldwork (Flora and Vegetation)
- Design Inputs – Studies & Fieldwork (ASS Soils)
- Design Inputs – Studies & Fieldwork (Air Quality and Climate Change)
- Design Inputs – Studies & Fieldwork (Social Values)
- Design Inputs – Studies & Fieldwork (Cultural Heritage)
- Community and Stakeholder Participation
- Current and Future Traffic Forecasts
- Options Selection Process
- Road Traffic Noise

### Project Updates

Project Updates were published in community newspapers each fortnight through the most active period of the project. Through the later stages, due to irregular new information, publication occurred on an as needs basis. A total of 19 Project Updates have been issued and all have been published on the project website.

## Appendix E

# Information Days

## Appendix E Information Days

### Information Day 1

Information Day 1 was held on Saturday 24 October 2009 to launch Roe Highway Extension community engagement program. The key objectives were to:

- Promote commencement of the project development phase of Roe Highway Extension;
- Invite feedback from the community on what matters to them and how they would like to participate in the project; and
- Provide information about the project including, scope, timeframes and the process to be undertaken.

### Event Promotion

The event was broadly promoted via advertisements using:

- The West Australian
- Community Newspapers
  - Fremantle/Cockburn Gazette;
  - Melville Times;
  - Canning Times; and
  - Weekend Courier.
- Radio
- Direct mail to approximately 6,000 residents living in close proximity to the project area.

### Venue Selection

The event was held at the Retro Chef Function Centre, Gwilliam Drive, Bibra Lake, which was chosen due to its proximity to the project area and the availability of parking.

The venue also provided a layout to enable the running of a video with theatre style seating, a small cafe area where tea and coffee was available and a large area to display posters and other materials of interest.

### Resources

South Metro Connect personnel attended the event providing adequate staffing to respond to questions and explain the project brief and its constraints.

Display material consisted of:

- Posters;
- Computer hub to enable access to the newly launched project website;
- Priority matrix to provide a visual representation of the most important issues for attendees; and
- A graffiti wall to enable people to publicly share their thoughts, concerns and values.

### Outcome

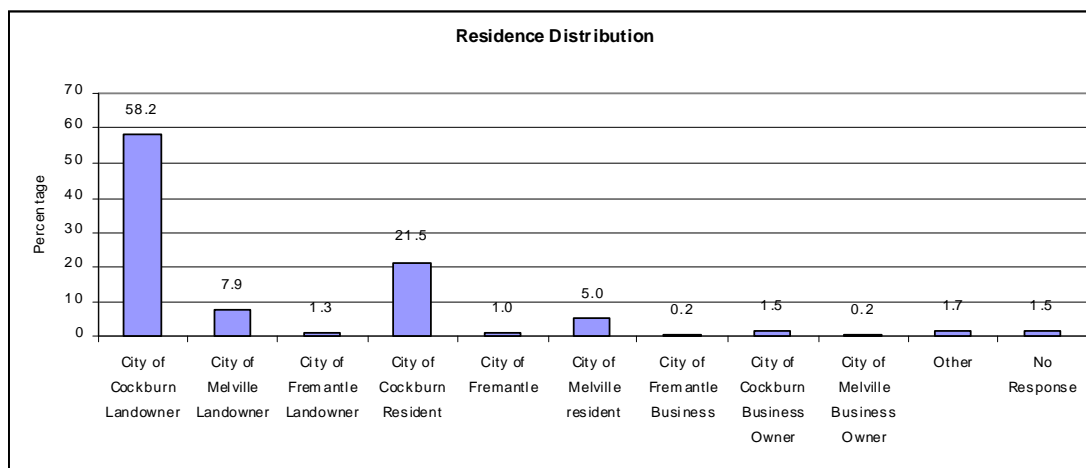
Although some attendees did not register at the door it was estimated that 600 to 700 people attended the event with some early visitors arriving 30 minutes prior to scheduled time of commencement.

The Save Beelihar Wetlands Group set up a stand outside the venue, handed out leaflets and talked to visitors and staff.

A feedback sheet was made available for visitors. Respondents were given the opportunity to list their top 10 priority issues concerning the project and 327 respondents took the opportunity to do this. The top listed items are shown in the table below.

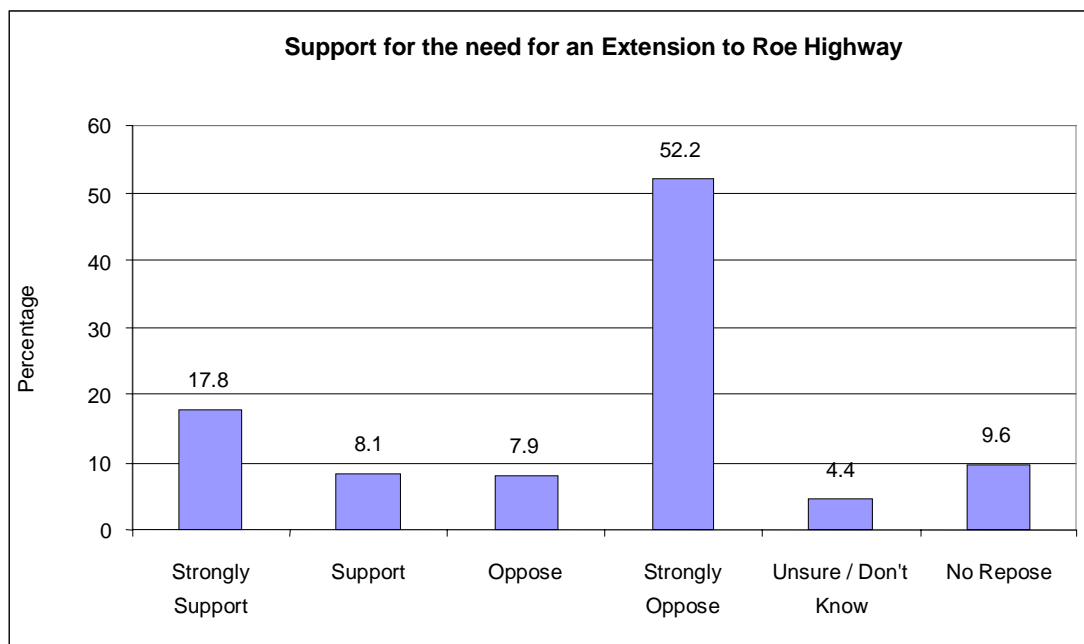
Priority Issue	Number of Responses
Environmental degradation	253
Noise	167
Pollution/air quality	87
Impacts on /protection of flora and fauna	60
Access	57
Finding alternatives to the plan (stopping Roe from going ahead in current placement)	42
Visual amenity	39
Disruption/ Impact to local residents	34
Traffic congestion	32
Community engagement	29
Decision making process (the need for or lack of future strategic planning)	26
Traffic volume	25
Road safety	22
Cost	22

As shown in the graph below the majority of respondents were from the City of Cockburn.



Given that more than 81% of visitors were from the City of Cockburn, where the majority of people appear to be opposed to the project, it was not surprising to find that the majority of respondents to the feedback form (52.2%) strongly opposed the need for Roe Highway Extension. 25.9% support the need for the extension to Roe Highway.





Feedback following the event indicated that most visitors were satisfied with the openness of staff and their willingness to discuss the project, irrespective of whether they supported or opposed the project.

### Information Day 2

Information Day 2 was held on Saturday 20 March 2010. It followed the initial Multi-Criteria Analysis Workshop and Design Workshop 1 and was designed to provide feedback on those events and new project information. It was another opportunity to build awareness about the proposed Roe Highway Extension and to receive comments from the community.

### Event Promotion

The event was broadly promoted via advertisements using:

- The West Australian;
- Community Newspapers
  - Fremantle/Cockburn Gazette;
  - Melville Times;
  - Canning Times; and
  - Weekend Courier;
- Radio; and
- Promotion on the project website.

In addition, approximately 63,000 invitations were distributed as inserts in the community newspapers with copies sent to email subscribers and around 100 identified stakeholders were invited by telephone.

### Venue Selection

The Cockburn Youth Centre, 25 Wentworth Parade, Cockburn Central was selected as an appropriate venue due to its size, location and availability. As well as having adequate parking and being easily accessed by public

transport (walking distance from Cockburn Central Railway Station and bus stops), it is located opposite the Cockburn Gateway Shopping Centre and had the potential to attract passing shoppers.

### **Resources**

South Metro Connect personnel attended the event providing adequate staffing to respond to questions and explain the project brief and its constraints.

Display material consisted of:

- Posters displayed at the first information day plus additional posters showing updated information on environmental investigations;
- A large aerial map (3 metres wide) of the area where the proposed Roe Highway is to be located with a jigsaw puzzle overlay showing the conceptual design presented at the first workshop;
- Computer hub to enable access to the project website;
- A PowerPoint presentation explaining the MCA process and outcomes, which was set to loop continuously;
- Project information sheets;
- Display folders of additional project information; and
- A graffiti wall to enable people to publicly share their thoughts, concerns and values.

### **Outcome**

The number of visitors attending throughout the five-hour period was very low, being approximately 80 in total and significantly lower than the first information day. This was despite broad promotion of the event. It is very hard to judge why this should have been the case however, it can be assumed that since it closely followed two previous events; MCA Workshop and Design Workshop 1, that perhaps people felt they had enough information at that time.

## Appendix F

# Public Opinion Survey

## Appendix F Public Opinion Survey

The following is extracted from the Public Opinion Survey that was conducted in October 2010.

### Executive Summary

#### Key Findings

##### Awareness of the Roe Highway Extension

70% of all people in Western Australia are not aware of the planned Roe Highway Extension, whereas of the people living closer to the planned construction (Materially Affected Area) only 24% are not aware and 76% are aware.

Fully in line with the results above, awareness of the government commitment to construct the Roe Highway Extension also becomes higher the closer people live to the actual construction area.

Only between 19% and 26% of the respondents who have heard about the Roe Highway Extension are actually able to accurately describe the exact route of the planned extension.

##### Main Benefits/ Main Disadvantages Roe Highway Extension

In general most benefits that the respondents mention are traffic related (less congestion/ better access). The residents living relatively close to the planned highway extension more often mention area specific benefits. The percentage of people who can't think of any benefits is relatively low.

In WA and Perth Metro, most people don't see any disadvantages in the planned Roe Highway Extension. The closer people live to the actual construction area, the more often people mention specific disadvantages. In general, the most salient disadvantages are environment (damage / noise) related. Further disadvantages are often related to the costs, traffic and people's properties. The residents living relatively close to the planned highway extension more often mention area specific disadvantages.

##### Impact on Local Neighbourhood

About 50% of the respondents living close to the planned Roe Highway Extension believe the project will have a positive impact on their local neighbourhood, whereas between 13% and 20% of the residents think the project will have a negative impact.

Residents in the direct neighbourhood of the Roe Highway extension, are significantly more often positive, but also negative about the impact of the construction on their local neighbourhood compared to people living further away from the proposed route. The latter more often believe the impact to the local neighbourhood is neither positive nor negative.

##### Support / Opposition Roe Highway Extension

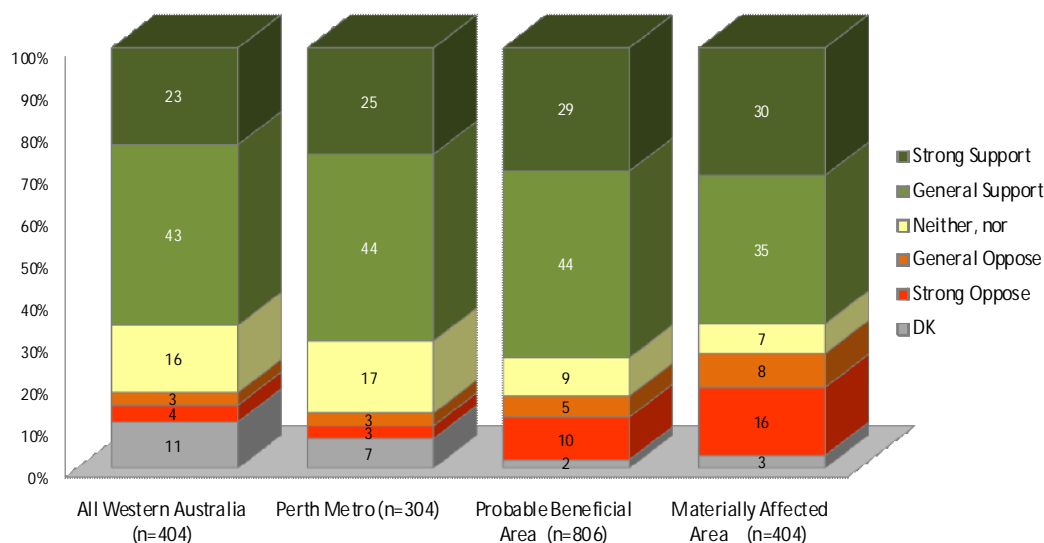
In general, regardless of the area where the people live, about two out three respondents support the plans for the Roe Highway Extension.

Support or Oppose Roe Highway Extension	All WA	Perth Metro	Probable Beneficial Area	Materially Affected Area
	N=404 %	N=304 %	N=806 %	N=404 %
Strong Support	23	25	29	30
General Support	43	44	44	35
Neither one, nor the other	16	17	9	7
General Oppose	3	3	5	8

Support or Oppose Roe Highway Extension	All WA	Perth Metro	Probable Beneficial Area	Materially Affected Area
	N=404 %	N=304 %	N=806 %	N=404 %
Strong Oppose	4	3	10	16
Don't know	11	7	2	3
<b>NET SUPPORT</b>	66	70	73	65
<b>NET OPPOSE</b>	7	6	16	24
<b>TOTAL</b>	100	100	100	100

The net Support is highest within the probable beneficial area, i.e. the people living fairly close to the planned extension, but often not directly neighbouring the actual construction.

Note that the highest proportion of 'strong support' (30%) is found amongst the direct neighbours of the Roe Highway route, but this group also has the highest proportion of 'strong opposition' (16%). Presumably, people living relatively close to the project are more highly involved with the extension plans and therefore have stronger opinions than people living further away who more often neither support nor oppose the plans.



### Attitudes about Roe Highway Extension (Statements)

The majority of respondents agree with statements about Roe Highway Extension being required to improve the traffic situation.

Most respondents acknowledge the fact that the extension will pass through an area of environmental value and will have a negative impact on native bush land and bird habitats.

However, 52% of the residents in the direct neighbourhood of the project agree to the statement that the Roe Highway Extension will be built with an acceptable environmental impact and respectively around 50% of the respondents agree with the statement that the expected benefits of the Roe Highway Extension are sufficient to compensate any expected environmental concerns in that area. Note that the proportions in disagreement are not simply the reciprocals of these figures – 22% of the Probable Beneficial Area (PBA) and 32% of the Materially Affected Area (MAA) disagree.



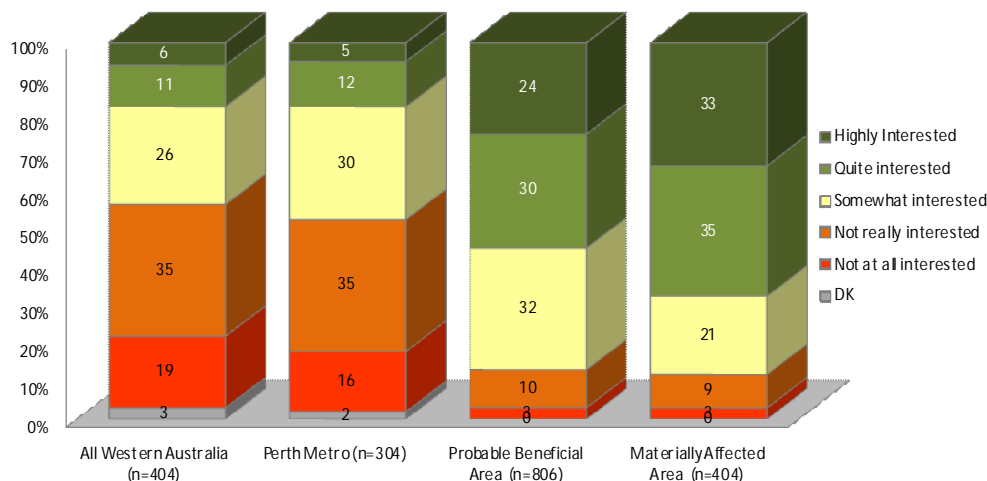
Attitudes towards Roe Highway Extension	Probable Beneficial Area			Materially Affected Area		
	Agree %	Disagree %	Neither/ Don't Know %	Agree %	Disagree %	Neither/ Don't Know %
Required to reduce heavy vehicles from Leach Highway	82	11	8	75	16	9
Is required to increase safety on Leach Highway	76	12	12	73	19	9
Will reduce traffic congestion	69	12	18	65	18	17
Will be built with an acceptable environmental impact	62	21	18	52	31	17
Accept the environmental impact if other environmental projects in Perth	61	22	17	56	32	12
Negative impact on native bush land and bird habitats	58	20	22	66	17	17
Will pass through an area of environmental value	55	13	32	70	11	19
Expected benefits are sufficient to compensate expected environmental concerns	54	22	25	45	32	22
Improvements of traffic flow will result in a net reduction in vehicle emission	51	28	21	46	35	18

### Information about Roe Highway Extension

The residents consider it very important that the public is informed and kept up to date on issues to do with the Roe Highway Extension. The people in the direct vicinity of the construction site area more often claim that being informed is 'extremely' important than the people living a bit further away.

Over 60% of the residents claim that they feel that they don't have enough information about the Roe Highway Extension at the moment, whereas just over 1 out of 3 respondents claim to have enough information.

## Interest in Information about the Roe Highway Extension



People living closer to the highway are more interested in information about the Roe Highway extension than people living relatively further away. About 2 out of 3 respondents living relatively close to the construction site would like to receive information about the project at least once a month. About 10% of the respondents would like to be updated on a weekly basis.

Most respondents would like to be kept updated on information about the Roe Highway Extension via articles in the local or West Australian newspaper. Television reports, direct mail and e-mail are also mentioned fairly often.

In general, respondents living relatively close to the construction site are neither seriously interested in day-to-day information about the development of the Roe Highway Extension nor interested in taking part in a community engagement process. However about one in five indicated that they would be 'very' or 'quite' interested in such engagement, and overall 27% are at least somewhat interested.

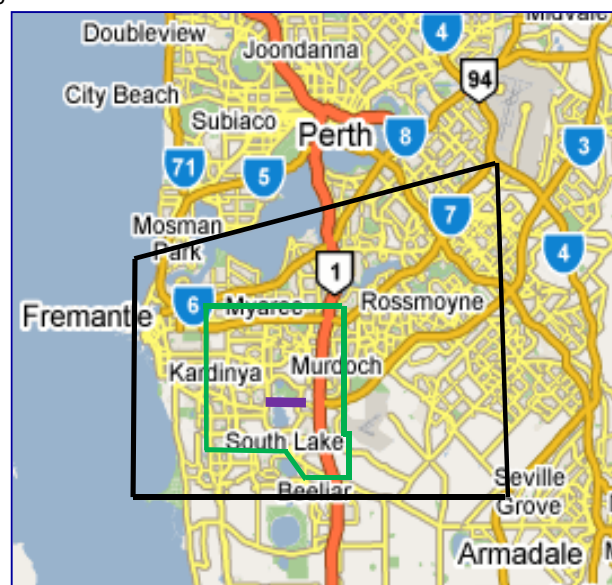
Among the 27% of the respondents who show an interest in taking part in some sort of community engagement process about the Roe Highway Extension, public displays at shopping centres/council offices and a council website are considered the most popular means of engagement.

### Survey Structure and Extracts from Survey Results

The survey was divided into four different geographical areas, differentiating on proximity to the planned Roe Highway Extension. The results on community sentiment were then compared over the four different areas.

The survey, which was undertaken by telephone, was divided into two parts;

- FlashPoll with a sample size of 400 All of WA and 300 Metropolitan Perth; and
- Main survey with a sample size of 1200. This sample area was also divided into two being:
  - The Probable Beneficial Area (sample size 800), which included suburbs south of the Swan River from Fremantle to the Perth Airport, as far south as a line taken through South Lake and Southern River, but outside the Materially Affected Area (black boundary in map).

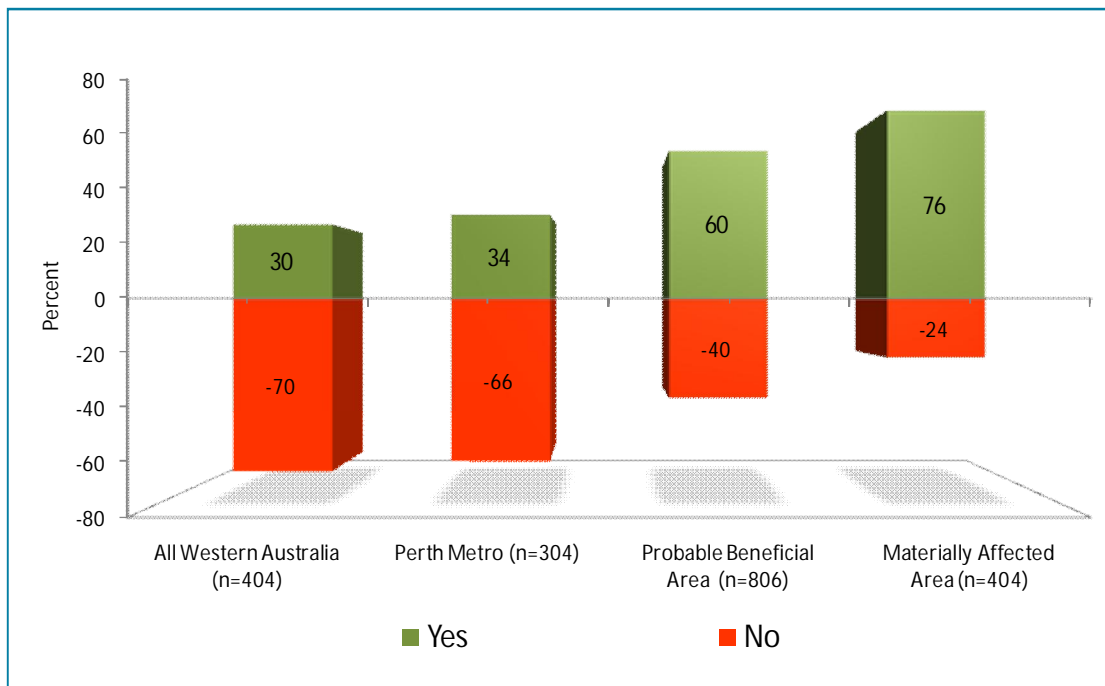


Main Survey sample boundaries

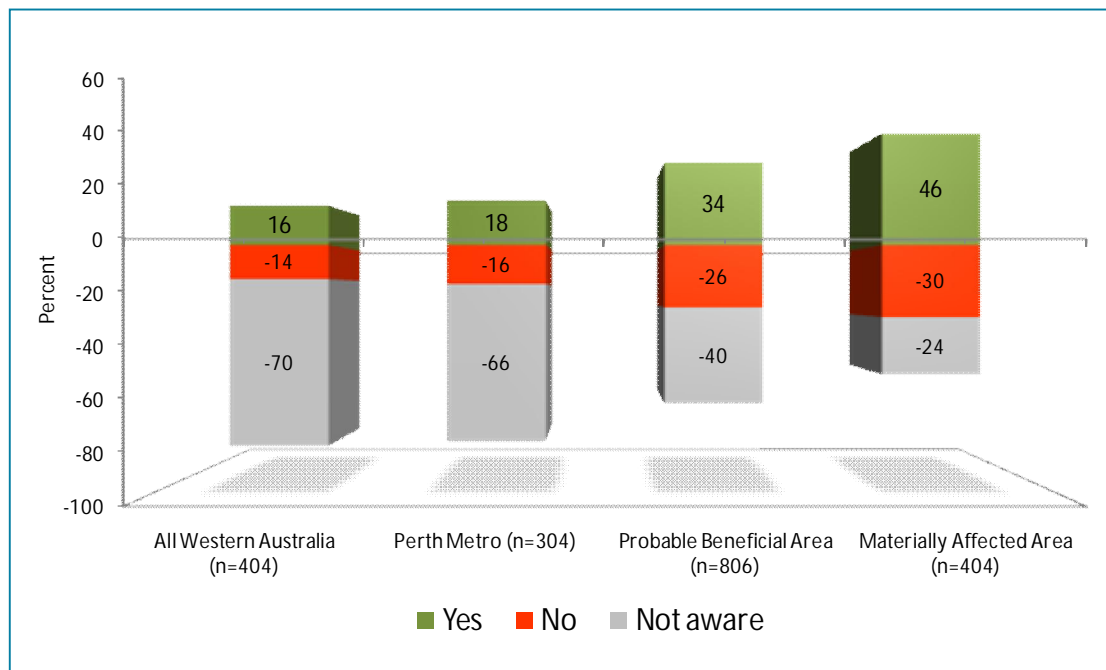
- The Materially Affected Area (sample size 400), which included an imaginary line from Elvira Street, Palmyra in the West, to Fifth Avenue in the East, to Gibbs Road in the South, to the crossing between Hamilton Road and Mayor Road in the South and back to Elvira Street in the West (green boundary in map).

The representative samples were 49% Male 51% Female and 27% aged 18 to 35 and 73% aged 35 and over.

The first questions were to gauge awareness about the Roe Highway Extension and about the Government commitment. The closer the respondents were to the Highway road reserve the greater the awareness. However awareness of the Government commitment was not as high as expected.



**Awareness of Roe Highway Extension**



#### Awareness of Government Commitment

The remainder of the survey was to obtain feedback on sentiment regarding the;

- Main benefits/disadvantages of the Roe Highway Extension
- Impact on local neighbourhood
- Level of support or opposition
- Level of interest in information about the Roe Highway Extension.

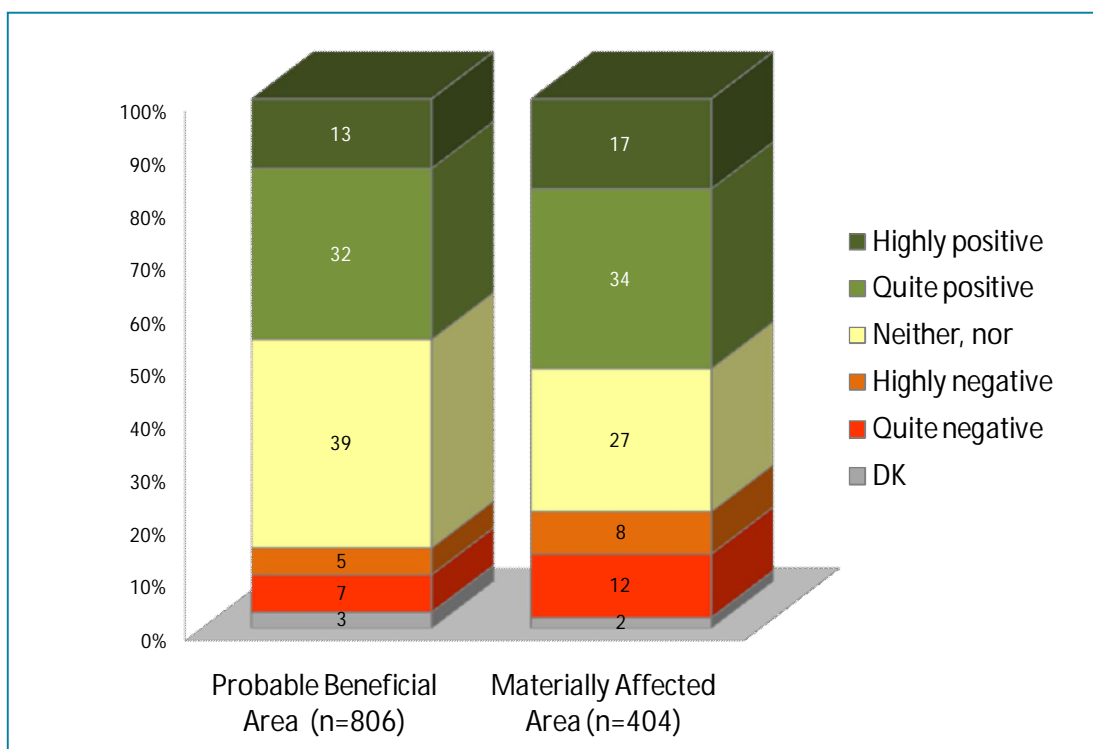
A summary of these findings is set out in the figures and tables below.

Unprompted main benefits mentioned	All WA	Perth Metro	Probable Beneficial Area	Materially Affected Area
Will ease traffic congestion	45	46	43	40
Better access for freight/industrial vehicles	23	26	25	27
Ease traffic on Leach Highway	17	18	26	29
Easy access to residential areas	12	11	13	12
Quick travel around (general)	10	11	14	10

#### Top 5 Unprompted Main Benefits Mentioned

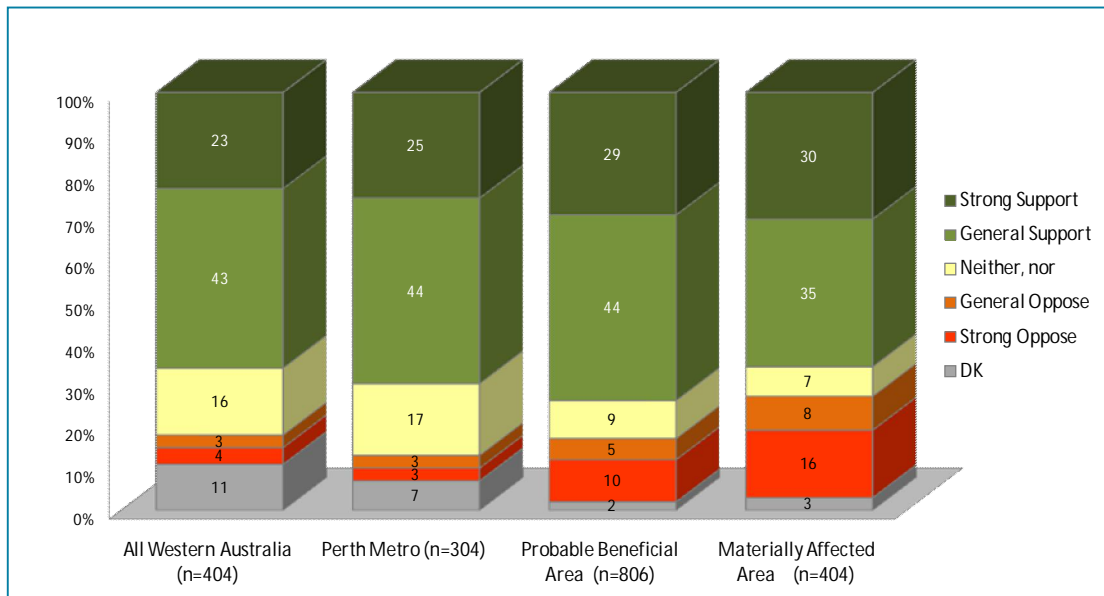
Unprompted key disadvantages mentioned	All WA	Perth Metro	Probable Beneficial Area	Materially Affected Area
No disadvantages	41	41	36	27
Impact on the environment (general)	13	12	21	30
Harm to wetlands	11	13	23	36
Increased noise in area	5	5	13	17
Cost/waste of money	6	5	3	1

#### Top 5 Unprompted Key Disadvantages Mentioned



#### Impact on Local Neighbourhood





#### Support or Oppose Roe Highway Extension

Unprompted Reasons to Support	All WA	Perth Metro	Probable Beneficial Area	Materially Affected Area
Will ease traffic congestion	35	35	30	29
Better access for freight/industrial vehicles	23	24	18	25
Less traffic in area/traffic congestion relief	21	17	28	31
Quick travel around (general)	18	17	29	24
Easy access to residential areas	12	11	8	8
Better connection to city/Fremantle	11	12	17	13
Good for business/economy	10	10	1	2
Improve traffic/safety on Leach Highway	9	9	17	22
Increase in infrastructure is good	8	8	13	8
Easy access to industrial areas	6	4	3	4

#### Top 10 Unprompted Reasons for Support

Unprompted Reasons to Oppose	All WA	Perth Metro	Probable Beneficial Area	Materially Affected Area
Harm to wetlands	23	29	45	52
Damaging the park/North Lake/Bibra Lake	22	28	41	41
Impact on the environment (general)	22	24	40	46
Negative for wildlife	22	28	23	34
Too many roads in Perth	16	8	11	13
Directs more traffic into my area	9	12	11	13

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Unprompted Reasons to Oppose	All WA	Perth Metro	Probable Beneficial Area	Materially Affected Area
Disruption to traffic routes	7	5	4	6
Increased noise in area	4	0	14	21
Unnecessary/won't solve problems	0	0	13	16
Need alternative methods/public transport	0	0	10	3

#### Top 10 Unprompted Reasons to Oppose

# Summary of Community Comments - Design Workshops 1 – 3

## Appendix G Summary of Community Comments - Design Workshops 1 – 3

In 2010, South Metro Connect held three design workshops, in which members of the community and stakeholders were given the opportunity to influence the concept designs of the Roe Highway Extension. Members of the community and stakeholders were able to raise issues and concerns with the project team, enabling aspects of the concept design to be thoroughly explained and investigated. To ensure all community and stakeholder concerns were addressed properly, it was decided that the alignment would be broken into three focus areas for the workshops.

The three focus areas were:

- Design Workshop One: Kwinana Freeway to Bibra Drive (eastern section);
- Design Workshop Two: Stock Road to North Lake Road (western section); and
- Design Workshop Three: North Lake Road to Bibra Drive (central 'wetlands' section).

For those unable to attend the design workshops, the opportunity to contribute comments about the design was made available on the South Metro Connect online discussion forum. In total, over 1300 comments were made by the community, which were collated into separate databases for each design workshop. Each original comment was given an identification number for reference purposes. The community comments have been summarised in this document into the following categories: Aboriginal heritage issues, economic issues, environmental issues, functional issues, process issues, social issues and construction issues. Following this, two additional categories were created for community comments that were generally opposed to, or supportive of, the project as a whole, and did not relate to the issue categories.

### Legend: Issue Categories

	<b>Aboriginal heritage</b>
	<b>Economic</b>
	<b>Environmental</b>
	<b>Functional</b>
	<b>Process</b>
	<b>Social</b>
	<b>Construction</b>
	<b>Oppose</b>
	<b>Support</b>

## Design Workshop 1: Kwinana Freeway to Bibra Drive (eastern section)

Held Saturday 6 March 2010 and Monday 8 March 2010.

Issue No	Aboriginal Heritage Issue	Comment ID
DW1-A1	Introduce Aboriginal art in areas close to Aboriginal heritage areas.	DW1-2 T016
DW1-A2	Acknowledge Aboriginal Heritage into art work. Consider input into parks and design.	DW1-1 P022

Issue No	Economic Issue	Comment ID
DW1-Ec1	Bibra Drive: <ul style="list-style-type: none"> <li>Concerns regarding increased traffic causing congestion from Roe Highway and at the North Lake Rd intersection with potential economic impact on access to local recreation facilities (e.g. Lakeside Recreation Centre)</li> </ul>	DW1-2 T007, DW1-2 T009, DW1-2 T010
DW1-Ec2	Murdoch University: <ul style="list-style-type: none"> <li>Land resumption necessary to minimise impact on residential area</li> </ul>	DW1-2 P097, DW1-2 P204
DW1-Ec3	Concerned about likely delays and every chance should be taken to speed things up	DW1-2 P241
DW1-Ec4	Heavy haulage only with toll.	DW1-2 P283
DW1-Ec5	Bibra Lake water table: <ul style="list-style-type: none"> <li>Dredge the lake, instigating factor, use soil for fertilisers</li> </ul>	DW1-2 T294
DW1-Ec6	Encourage people to use trains and bus.	DW1-1 P014
DW1-Ec7	Where is money going to come from now - distant future.	DW1-1 P273

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Issue No	Environmental Issue	Comment ID
DW1-En1	<p>Murdoch Activity Centre access:</p> <ul style="list-style-type: none"> <li>Remove access to/from west of Roe Highway to minimise footprint.</li> <li>Do not move further west as it will destroy wetlands.</li> </ul>	DW1-2 T020, DW1-2 P025, DW1-1 P303
DW1-En2	<p>Fauna movements:</p> <ul style="list-style-type: none"> <li>Maintain fauna crossing/movement along the whole alignment.</li> <li>Fauna crossings used at interchange, but green belt disappears with this option.</li> <li>Fauna crossings need to be better designed.</li> <li>Fox control required to protect fauna.</li> </ul>	DW1-2 P033, DW1-2 T218, DW1-2 P268, DW1-1 P034
DW1-En3	<p>Drainage/road runoff:</p> <ul style="list-style-type: none"> <li>Use filtration, natural drainage area or other methods to protect groundwater from contamination.</li> <li>Recharge into lakes.</li> <li>Maximise effectiveness of stormwater sumps.</li> </ul>	DW1-2 P172, DW1-2 P176, DW1-2 P258, DW1-2 T302, DW1-1 P030, DW1-1 T100, DW1-1 T101
DW1-En4	<p>Wildlife habitat:</p> <ul style="list-style-type: none"> <li>Provide/preserve good habitat with minimal fauna relocation.</li> <li>Preservation of woodlands and inclusion of nesting boxes for Carnaby's Black Cockatoos.</li> <li>Establish maintenance plan for marginalised fauna.</li> <li>Consider combined effects of other projects on habitat.</li> </ul>	DW1-2 P247, DW1-2 P271, DW1-2 P280, DW1-2 T295, DW1-2 T297, DW1-2 T298, DW1-2 T299, DW1-1 T086, DW1-1 T091, DW1-1 T099, DW1-1 T292
DW1-En5	Concern for impact on wetlands, flora and fauna if tunnel is constructed west of Bibra Drive.	DW1-2 P281
DW1-En6	Suggestion to dredge the lake would change habitat and natural cycle.	DW1-2 T296
DW1-En7	Minimise impact on and preserve the environment.	DW1-2 T300, DW1-1 P012



Issue No	Environmental Issue	Comment ID
<b>DW1-En8</b>	<p>Environmental improvement/maintenance:</p> <ul style="list-style-type: none"> <li>Employ environmentalists to look after the area. Consider environmentalists to work together with engineers</li> <li>Enhance environment; wetland and bush land rehabilitation. Preserve high quality vegetation near on/off ramps.</li> <li>Eradicate rabbits etc.</li> <li>Replace non-native plant species with native plant species.</li> <li>Help Native ARC to look after wildlife until re-established bushland can support the fauna.</li> </ul>	DW1-1 P031, DW1-1 P032, DW1-1 P033, DW1-2 T303, DW1-2 T304, DW1-1 P029, DW1-1 P159
<b>DW1-En9</b>	<p>Wetlands area:</p> <ul style="list-style-type: none"> <li>Roe Highway through wetlands area needs to be elevated to allow connectivity for wildlife and people.</li> <li>Keeping Murdoch Activity Centre access intersection simple will allow bridge across wetland (suspension bridge?). - Do not go through lakes.</li> <li>Avoid Melaluca wetlands (e.g. Roe Swamp).</li> </ul>	DW1-1 P036, DW1-1 T087, DW1-1 T095, DW1-1 T104, DW1-1 P011, DW1-1 P012, DW1-1 T008, DW1-1 P011, DW1-1 P013, DW1-2 P191, DW1-1 T092, DW1-2 P068, DW1-2 P259, DW1-2 P272, DW1-1 P189, DW1-1 P162, DW1-1 T093, DW1-1 P190, DW1-2 T209
<b>DW1-En10</b>	<p>Pollution:</p> <ul style="list-style-type: none"> <li>Concerns regarding air pollution for residents and fauna.</li> <li>Light pollution to be avoided and minimised.</li> <li>Noise impact is a general concern as well as on animals on Murdoch University grazing land.</li> </ul>	DW1-1 P079, DW1-1 P106, DW1-1 P080, DW1-2 P175
<b>DW1-En11</b>	The section (Kwinana Freeway to Bibra Drive) goes in a way to minimise impacts on wetlands in the next section.	DW1-1 T088, DW1-1 P108
<b>DW1-En12</b>	General concern for environment.	DW1-1 T097, DW1-1 T098, DW1-1 P272, DW1-1 P287, DW1-1 T071, DW1-1 T096, DW1-2 P292, DW1-2 P286, DW1-2 T210
<b>DW1-En13</b>	<p>Roe Highway Stage 7 (Kwinana Freeway to Karel Avenue):</p> <ul style="list-style-type: none"> <li>Concerns as a consequence of prior experience of construction and operation at this location included; pollution and loss of vegetation</li> </ul>	DW1-1 T137, DW1-1 T138

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Issue No	Environmental Issue	Comment ID
DW1-En14	Small parcel of bushland behind Leeming should not be encroached on.	DW1-1 P358, DW1-1 P354

Issue No	Functional Issue	Comment ID
DW1-Fn1	Overall satisfaction with the concept design.	DW1-1 P085, DW1-1 T245, DW1-1 P214, DW1-1 P178, DW1-2 P191, DW1-1 P290, DW1-O P007, DW1-2 P240, DW1-1 P179
DW1-Fn2	Utilise materials that will minimise noise; <ul style="list-style-type: none"> <li>E.g. thickness of concrete, road surface materials, pervious concrete.</li> </ul>	DW1-1 T114, DW1-1 T116, DW1-1 P078, DW1-1 T113, DW1-2 T219, DW1-2 P288, DW1-1 T115
DW1-Fn3	Bibra Drive: <ul style="list-style-type: none"> <li>Concerns regarding changing the current alignment resulting in increased traffic and noise. Residents do not want access to Roe Highway via Bibra Drive.</li> <li>Maintain as local road; heavy vehicle restrictions, no major intersections.</li> <li>General concerns regarding the amount of intersections in a short amount of time and the off/on ramps along Bibra Drive.</li> <li>Concerns regarding the increase of noise on Bibra Drive as it will become a major thoroughfare to Fiona Stanley Hospital. Consider no connection to Murdoch Activity Centre.</li> <li>Safe pedestrian access/connectivity over a busy Bibra Drive</li> <li>The proposed interchange ramp linking to Bibra Drive will cause significant impact on the local areas in terms of traffic and noise. This ramp will create a "rat run" through the Bibra Lake area.</li> </ul>	DW1-1 P240, DW1-1 P241, DW1-1 P223, DW1-1 P220, DW1-1 P107, DW1-1 P083, DW1-1 T226, DW1-1 P285, DW1-1 P301, DW1-1 P307, DW1-1 T325, DW1-1 P368, DW1-1 T246, DW1-2 T082, DW1-2 T101, DW1-2 P191, DW1-2 T178, DW1-1 P258, DW1-1 T247, DW1-1 T102, DW1-1 T291, DW1-1 T278, DW1-2 P106, DW1-1 P224, DW1-1 P244, DW1-1 P210, DW1-1 P064, DW1-2 T006, DW1-1 P219, DW1-1 P225, DW1-1 P051, DW1-2 P265, DW1-1 T044, DW1-2 P235, DW1-2 T166, DW1-2 T159, DW1-1 T229, DW1-2 T100, DW1-2 P124, DW1-1 P371, DW1-2 P048, DW1-1 P304, DW1-1 P282, DW1-1 P308
DW1-Fn4	Keep Roe Highway simple and keep within the MRS road reserve.	DW1-1 T103, DW1-2 T040, DW1-2 P042

Issue No	Functional Issue	Comment ID
DW1-Fn5	<p>Murdoch Activity Centre (MAC):</p> <ul style="list-style-type: none"> <li>General enquiries over connectivity to MAC.</li> <li>What happened to original proposal on MRWA website?</li> <li>Consider northern and southern direct accessibility to MAC from Kwinana Freeway.</li> <li>The ring road within MAC needs to be back on the agenda, otherwise there is no infrastructure to move the 35,000 people proposed.</li> <li>Consider uninhibited emergency access from Jandakot Airport (Flying Doctor Service).</li> <li>Satisfied with original design proposed.</li> </ul>	DW1-1 T227, DW1-1 P063, DW1-2 P044, DW1-2 P146, DW1-2 P196, DW1-2 T003, DW1-2 T041, DW1-2 P047, DW1-2 T006, DW1-1 T043, DW1-2 T037, DW1-2 P039, DW1-2 T112, DW1-1 T205, DW1-2 P192, DW1-1 P221, DW1-1 P054, DW1-2 T099, DW1-1 T089, DW1-2 P198, DW1-2 P277, DW1-1 T196, DW1-1 T203, DW1-1 T295, DW1-2 P257, DW1-2 P267, DW1-2 T223, DW1-2 T179, DW1-2 T184, DW1-2 P102, DW1-2 P125, DW1-2 T135, DW1-2 T017, DW1-1 T105
DW1-Fn6	<p>Traffic Lights:</p> <ul style="list-style-type: none"> <li>Full uninterrupted movement from Kwinana Freeway to Roe Highway.</li> <li>Where possible, no traffic lights.</li> </ul>	DW1-1 T364, DW1-1 P366, DW1-1 P367, DW1-2 P074, DW1-1 P081, DW1-2 T224, DW1-1 T073, DW1-2 P274, DW1-2 P245, DW1-2 P232, DW1-2 P236, DW1-2 P253
DW1-Fn7	<p>Principal Shared Path (PSP):</p> <ul style="list-style-type: none"> <li>Incorporate PSP across entire highway, MAC and Kwinana Freeway intersection.</li> <li>Build PSP during construction.</li> <li>Safety concerns; consider barriers between PSP and the highway</li> <li>Consider overpasses and underpasses. (Overpass bridges are a safer option than underpasses, consider enclosing).</li> <li>Maintain existing paths for residents.</li> <li>Accessibility for disabled people.</li> <li>Ensure that where noise walls are proposed, gaps are provided into residential areas from PSP paths.</li> <li>Use Hope Road as last resort.</li> <li>Consider dual paths.</li> </ul>	DW1-2 P141, DW1-2 P143, DW1-2 T160, DW1-1 P269, DW1-1 P215, DW1-2 P250, DW1-1 P254, DW1-1 P268, DW1-1 P360, DW1-1 T328, DW1-2 T220, DW1-1 P191, DW1-1 P065, DW1-2 P071, DW1-2 P256, DW1-2 T225, DW1-2 P088, DW1-1 P016, DW1-2 P269, DW1-1 P260, DW1-1 P015, DW1-2 P276, DW1-1 P017, DW1-2 P279, DW1-2 P248, DW1-1 T186, DW1-2 P203, DW1-2 P142, DW1-2 P249, DW1-2 P175, DW1-1 T001, DW1-1 T003, DW1-2 P065, DW1-2 T227, DW1-2 T083, DW1-2 T222, DW1-2 T177, DW1-2 P201, DW1-2 P028, DW1-2 T084, DW1-1 P248, DW1-1 T004, DW1-2 P102, DW1-2 P137, DW1-2 P145

Issue No	Functional Issue	Comment ID
<b>DW1-Fn8</b>	<p>Roe/Bibra:</p> <ul style="list-style-type: none"> <li>Consider 'dog bone' movement at Bibra/Roe to enable a free flow of traffic similar to Karel Avenue.</li> <li>Elevate Roe over Bibra Drive</li> <li>Widen Bibra Drive, where necessary.</li> <li>Roe Highway access via Bibra Drive in all directions should be maintained.</li> <li>Allow for a good flow of traffic on/off through a busy intersection.</li> <li>On/off ramps but no traffic lights. Consider clover leaf on/off ramps.</li> <li>Bibra Drive on/off ramps must have access to Farrington Road in either an overpass or an underpass taking into consideration the preservation of the environment.</li> <li>Consider landfill site south Bibra.</li> </ul>	DW1-1 P242, DW1-2 T224, DW1-2 P282, DW1-1 T332, DW1-2 P272, DW1-2 P252, DW1-1 T042, DW1-2 T156, DW1-2 T229, DW1-1 P257, DW1-2 T004, DW1-2 P043, DW1-1 P261, DW1-1 P248, DW1-2 P233, DW1-2 P049, DW1-2 P251, DW1-2 P246, DW1-2 P239, DW1-2 T230, DW1-2 T012, DW1-2 T221, DW1-2 P278, DW1-1 P192, DW1-2 P168, DW1-2 T163, DW1-1 P310, DW1-2 P136, DW1-2 P138, DW1-O P002, DW1-1 P046, DW1-2 T301
<b>DW1-Fn9</b>	<p>Minimise footprint:</p> <ul style="list-style-type: none"> <li>Consider walls rather than barriers.</li> <li>Minimise width of Roe Highway Extension by lowering with retaining walls rather than sloping banks. Sink road as much as possible, especially in sensitive areas such as Bibra Drive, to minimise visual and sound impacts.</li> <li>Consider two lanes each way only and only allow light vehicles.</li> </ul>	DW1-1 P077, DW1-1 P289, DW1-1 P311, DW1-2 T157, DW1-1 P057, DW1-1 T071, DW1-1 P059, DW1-1 P048, DW1-1 T037, DW1-1 P288, DW1-2 P067, DW1-1 P052, DW1-2 P260, DW1-1 P283, DW1-2 P284, DW1-2 P059, DW1-2 P073, DW1-2 P057, DW1-1 P053, DW1-2 T052, DW1-1 T277
<b>DW1-Fn10</b>	<p>Number of lanes</p> <ul style="list-style-type: none"> <li>Plan for the future, consider a six lane option.</li> <li>Provide for double off/on ramps.</li> </ul>	DW1-2 P273, DW1-2 P243, DW1-2 P149, DW1-2 P244, DW1-2 P237, DW1-1 P252
<b>DW1-Fn11</b>	Elevate Roe Highway as much as possible.	DW1-1 P191

Issue No	Functional Issue	Comment ID
DW1-Fn12	<p>Noise impact concerns:</p> <ul style="list-style-type: none"> <li>Noise readings are wrong because they do not reflect a true reading from individual properties</li> <li>Reduce speed limit to minimise noise</li> <li>There will be no noise if the road isn't built.</li> <li>Noise protection measures are essential.</li> <li>Consider other mitigation measures other than noise walls.</li> <li>Complete noise modelling prior to construction and consider noise from exhaust stacks as well.</li> <li>Bury the road as much as possible to assist in noise reduction.</li> </ul>	DW1-1 T111, DW1-1 T071, DW1-2 P264, DW1-1 T112, DW1-1 P312, DW1-1 T276, DW1-2 T018, DW1-2 P034, DW1-2 P078, DW1-2 P058, DW1-2 P116
DW1-Fn13	<p>Lighting impact concerns:</p> <ul style="list-style-type: none"> <li>How will lighting impact nearby housing at night?</li> <li>Concerns over light spill impacts to residents and fauna. Use appropriate lighting.</li> </ul>	DW1-1 P067, DW1-1 P154, DW1-1 T333, DW1-2 P117, DW1-1 T041, DW1-2 P060, DW1-2 P079, DW1-2 P072
DW1-Fn14	<p>Signage:</p> <ul style="list-style-type: none"> <li>Provide clear signage.</li> </ul>	DW1-1 P050, DW1-1 T040
DW1-Fn15	<p>Power lines:</p> <ul style="list-style-type: none"> <li>Sink current high voltage powerlines.</li> <li>No more high voltage over head lines (132 or 332Kv transmission lines).</li> <li>Align existing high voltage power lines along Roe Highway extension.</li> <li>132Kv transmission lines should be marked on plan.</li> </ul>	DW1-1 T330, DW1-1 P347, DW1-1 P353, DW1-1 T329, DW1-1 P361, DW1-2 P077, DW1-2 P113

Issue No	Functional Issue	Comment ID
DW1-Fn16	<p>Noise barriers:</p> <ul style="list-style-type: none"> <li>Consider constructing noise barriers along the entire length of the Roe Highway Extension and Kwinana Freeway intersection.</li> <li>Noise walls and public art can create opportunities for graffiti. Soften noise walls by using vegetation, which will also help reduce graffiti</li> <li>Build noise wall behind Leeming.</li> <li>Noise walls are required; however, consider maintaining views and property values.</li> <li>Properly landscape embankments.</li> <li>To achieve allowable daytime noise levels, the height of the noise walls would be quite substantial. Concerns regarding an overpowering slab of concrete.</li> </ul>	DW1-1 P357, DW1-1 T038, DW1-1 P337, DW1-1 P349, DW1-1 T323, DW1-1 T136, DW1-2 P089, DW1-2 P075, DW1-2 P069, DW1-2 P023, DW1-2 P026, DW1-1 P049, DW1-2 P255, DW1-2 P036, DW1-2 P073, DW1-2 P057, DW1-O P015
DW1-Fn17	Maintenance of infrastructure e.g. Noise walls.	DW1-2 P032
DW1-Fn18	<p>Hope Road:</p> <ul style="list-style-type: none"> <li>Why is the Hope Road area not in consideration, as it may have less environmental impact on the wetlands?</li> <li>Maintain Hope Road access.</li> <li>Why can't we upgrade Hope Road?</li> <li>Ramp near Hope Road to be as far away as possible from residents.</li> <li>Move Roe further north of Hope Road to allow connection from Bibra Drive (leading north) to Roe Highway (heading West).</li> <li>Flyover the full length of Hope Road going west, therefore reducing impact on flora and fauna</li> <li>Cut off Hope Road at Bibra Drive heading east.</li> </ul>	DW1-1 P182, DW1-1 P222, DW1-1 T187, DW1-1 T144, DW1-2 P263, DW1-2 P105, DW1-2 T164



Issue No	Functional Issue	Comment ID
<b>DW1-Fn19</b>	<p>Visual amenity:</p> <ul style="list-style-type: none"> <li>Consider more wiggly yellow poles.</li> <li>Road not to be built higher than homes.</li> <li>No cheap tin fencing.</li> <li>Consider a balance between aesthetic vs. purpose.</li> <li>Paint structural beams and columns.</li> <li>Overland tunnel in the shape of the Waugal.</li> <li>Colour coding vehicle movements as both public art and a direction guide. E.g. follow the green ramps/roads to get to the hospital.</li> <li>One lane on top of the other vs. visual amenity.</li> </ul>	DW1-1 P340, DW1-2 P090, DW1-2 P076, DW1-1 T072, DW1-2 T167, DW1-2 T215, DW1-2 P150, DW1-2 T217
<b>DW1-Fn20</b>	<p>Farrington Road:</p> <ul style="list-style-type: none"> <li>Accessibility, safety and increased traffic impact concerns. Consider limiting traffic on Farrington Road.</li> <li>Consider pedestrian access and overpasses.</li> <li>Remove Farrington Road access to Kwinana Freeway to minimise traffic. When the Roe Highway Extension and MAC access routes are in place, this connection becomes redundant.</li> <li>Use Farrington Road, not Hope Road as it is already busy and partly developed. It has already been impacted and therefore, avoids bisecting the wetlands.</li> </ul>	DW1-O P008, DW1-1 P300, DW1-1 P298, DW1-1 P297, DW1-1 T296, DW1-1 P267, DW1-1 P306, DW1-1 T229, DW1-1 T204, DW1-2 P195, DW1-2 P199, DW1-2 T022, DW1-1 T293, DW1-1 P309, DW1-1 T207, DW1-O P002
<b>DW1-Fn21</b>	<p>Connectivity:</p> <ul style="list-style-type: none"> <li>Access for wildlife and pedestrians to go between lakes.</li> <li>The Roe Highway Extension needs to be designed for local connectivity as well.</li> <li>Maintain residential access.</li> </ul>	DW1-1 T002, DW1-2 P262, DW1-1 P370
<b>DW1-Fn22</b>	Vibration effects from heavy haulage vehicles.	DW1-1 P157

Issue No	Functional Issue	Comment ID
DW1-Fn23	<p>Bibra Lake to Murdoch:</p> <ul style="list-style-type: none"> <li>A bridge over the Roe is excellent. Residents in Bibra Lake need to be able to get north easily or else it would add too much travel time.</li> <li>Concerns over connectivity between both suburbs and increased commuting time.</li> </ul>	DW1-1 P279, DW1-1 P284
DW1-Fn24	<p>Murdoch Drive, Bibra Road and Farrington Road Intersection:</p> <ul style="list-style-type: none"> <li>Satisfied with the configuration for access to MAC.</li> <li>Concerns regarding "black spot" at Murdoch Drive and Farrington Road.</li> <li>Consider traffic light intersection to improve amenity for pedestrians and cyclists.</li> <li>Previous option should be considered or slightly amended.</li> <li>The off-ramp onto Murdoch Drive and Farrington Road will put enormous pressure on the existing roundabout. Concerns about increased traffic, especially as many accidents already occur at this roundabout.</li> <li>Consider high wide load capacity for future.</li> <li>Footprint of the new road can be balanced by closing and seeding the redundant section of Murdoch Drive.</li> <li>Make Bibra Drive to Murdoch Drive two lanes each way.</li> </ul>	DW1-1 T331, DW1-2 T207, DW1-1 P194, DW1-1 P218, DW1-1 P231, DW1-2 P118, DW1-1 T206, DW1-1 P235, DW1-1 P193, DW1-2 P187, DW1-2 T155, DW1-1 P216, DW1-2 P091, DW1-2 T081, DW1-2 P190, DW1-2 P094, DW1-2 P171, DW1-1 P249, DW1-2 P051, DW1-1 P256, DW1-2 P185, DW1-1 T326, DW1-2 P174, DW1-2 T153, DW1-2 P103, DW1-2 P104, DW1-2 P123, DW1-2 P086, DW1-2 P085
DW1-Fn25	<p>Alternative options:</p> <ul style="list-style-type: none"> <li>Why not follow the railway line with the Roe Highway Extension? This land has been utilised for rail, why not an accompanying road?</li> </ul>	DW1-1 P259
DW1-Fn26	<p>Baker Court:</p> <ul style="list-style-type: none"> <li>Prefer Bibra Drive to be re-aligned through Baker Court and cut across Murdoch University land.</li> <li>Re-open Baker Court/Farrington Road access.</li> </ul>	DW1-2 T002, DW1-2 T011, DW1-2 T162

Issue No	Functional Issue	Comment ID
<b>DW1-Fn27</b>	<p>Kwinana Freeway:</p> <ul style="list-style-type: none"> <li>Consider six lanes from Kwinana Freeway to Murdoch Drive intersection as this will be the area of heaviest traffic with access to Fiona Stanley Hospital and MAC.</li> <li>Consider six lanes between Kwinana Freeway and Bibra Drive or double off ramp instead of three lanes.</li> <li>Eliminate looping off-ramps and install traffic lights.</li> <li>Remove the need for drainage basins.</li> <li>Build on/off ramps as far away as possible from residential properties.</li> <li>Range of access ramps to be able to take percentage loads from the North to Fremantle.</li> <li>Maintain existing infrastructure of Kwinana Freeway.</li> <li>What about train station at intersection?</li> </ul>	DW1-2 P261, DW1-2 P231, DW1-1 T324, DW1-1 P173, DW1-1 P338, DW1-1 T320, DW1-1 T327, DW1-1 P350, DW1-1 P356, DW1-1 P163, DW1-1 P047, DW1-1 P160, DW1-2 P064
<b>DW1-Fn28</b>	<p>Roe 7:</p> <ul style="list-style-type: none"> <li>Alignment should not be changed (eastbound of Kwinana Freeway).</li> <li>No new bridges on east side of Kwinana Freeway.</li> <li>An extra lane on Kwinana Freeway over the railway is required - currently congested and merging from Roe 7 is difficult.</li> <li>Concerns regarding vehicle safety at existing off ramp, tight turn.</li> </ul>	DW1-1 P354, DW1-1 P355, DW1-1 P336, DW1-1 P348, DW1-1 T318, DW1-1 T317, DW1-2 P139, DW1-2 P133, DW1-2 P134, DW1-2 P140, DW1-2 P108, DW1-1 T177
<b>DW1-Fn29</b>	<p>Roe Highway heading south onto Kwinana Freeway:</p> <ul style="list-style-type: none"> <li>Do not allow Roe traffic to merge with Kwinana Freeway traffic till after railway fly over.</li> <li>Make bend two lanes wide. Left lane for trucks only.</li> </ul>	DW1-1 P007, DW1-1 P006

Issue No	Functional Issue	Comment ID
DW1-Fn30	<p>Leeming:</p> <ul style="list-style-type: none"> <li>No road near the back fences of Leeming.</li> <li>Concerns over property damage.</li> <li>Light spill and PSP location in close proximity to homes.</li> <li>Level of Roe 7 too high and is visible from back fence. Visual impacts of bridges, trucks and cars.</li> <li>The proposed off ramp and existing roads could be at different elevations e.g. sink the existing road on its current alignment and have the proposed off ramp going over it rather than realigning the existing road, which cuts into Leeming.</li> </ul>	DW1-1 P341, DW1-1 P351, DW1-1 T132, DW1-1 P184
DW1-Fn31	<p>Safety:</p> <ul style="list-style-type: none"> <li>Ensure any underpasses are safe - what is their plan for the long term future?</li> </ul>	DW1-1 P270
DW1-Fn32	<p>Murdoch University:</p> <ul style="list-style-type: none"> <li>Cutting across Murdoch University brings about the complication of land resumption, noise/issues with recreational centre on Baker Road, additional intersections interfering with flow to MAC and Fiona Stanley Hospital.</li> <li>Impact upon Murdoch University Vet Campus can be minimised by incorporating stock under crossing, to give access to pasture isolated by new road alignment.</li> <li>Access to MAC not to go through reserve/farm (vet school), suggest Baker be used as an off ramp instead.</li> </ul>	DW1-1 P180, DW1-1 P179, DW1-2 P050, DW1-1 T175
DW1-Fn33	<p>Drainage:</p> <ul style="list-style-type: none"> <li>General concerns regarding drainage basins.</li> <li>Earth potential rise study is needed on drainage design. (Earth potential rise is increased by earth wires).</li> </ul>	DW1-2 P128, DW1-2 P129, DW1-2 P130, DW1-2 P131, DW1-2 P115

Issue No	Functional Issue	Comment ID
DW1-Fn34	<p>Allendale Crescent:</p> <ul style="list-style-type: none"> <li>Concerns over accessibility of Allendale Crescent and increased pollution/noise.</li> <li>Consider second access route.</li> <li>Road safety and speed calming devices are required for Farrington Road T-junction at Allendale Entrance, but not traffic lights.</li> </ul>	DW1-2 T181, DW1-2 P197, DW1-2 P186, DW1-1 P233, DW1-2 T180
DW1-Fn35	<p>Emergency access:</p> <ul style="list-style-type: none"> <li>Ambulance and FESA under an emergency situation only have one access point from Murdoch Drive.</li> <li>Could have a dedicated emergency lane on Murdoch Drive, Kwinana Freeway, South Street, Farrington Road, MAC connection from Roe Highway.</li> <li>How are emergency vehicles accommodated?</li> <li>Are emergency lanes incorporated?</li> </ul>	DW1-1 T195, DW1-1 T197, DW1-2 P147, DW1-2 P148
DW1-Fn36	<p>Tunnel vs bridge:</p> <ul style="list-style-type: none"> <li>Tunnel all of Roe Highway or part of in sensitive areas e.g. Bibra Drive, wetlands.</li> <li>Benefits on tunnelling include: extract of exhaust fumes, better noise control, minimise disturbance above ground, reduce need for drainage basin, water harvesting.</li> <li>What would Aboriginal people prefer?</li> <li>Avoid clearing vegetation and tunnel underneath (e.g. North Lake).</li> <li>Consider tunnelling issues; depth, geotechnical issues?</li> <li>Bridge issues; visibility, bird strikes.</li> </ul>	DW1-2 T005, DW1-2 T212, DW1-2 T213, DW1-2 P293, DW1-2 T206, DW1-1 T365, DW1-2 T158, DW1-2 T205, DW1-2 T214, DW1-2 T211, DW1-2 T045
DW1-Fn37	<p>North Lake:</p> <ul style="list-style-type: none"> <li>Concerns over impacts on existing properties.</li> </ul>	DW1-2 P093

Issue No	Functional Issue	Comment ID
<b>DW1-Fn38</b>	<p>Murdoch Chase:</p> <ul style="list-style-type: none"> <li>Concerns over increased difficulty to enter and exit the estate.</li> <li>Concerns over increased noise and pollution.</li> <li>Devalue properties.</li> <li>Murdoch Chase to be looked at separately - surrounded by major roads. MRWA check-ups to be conducted separately.</li> <li>Consider T-junction.</li> </ul>	DW1-1 P237, DW1-2 P189, DW1-2 T183, DW1-2 T226, DW1-2 T019, DW1-2 P200, DW1-2 P030, DW1-2 P186, DW1-1 P233
<b>DW1-Fn39</b>	<p>Increased traffic:</p> <ul style="list-style-type: none"> <li>Concerns regarding increased traffic along local roads, e.g. Discovery Drive.</li> <li>Consider ways to slow traffic down.</li> <li>Heavy traffic coming from Cockburn Industrial Park should not be given through flow.</li> </ul>	DW1-2 P109, DW1-2 P238, DW1-2 P107
<b>DW1-Fn40</b>	<p>Bibra Drive and Hope Road:</p> <ul style="list-style-type: none"> <li>How will residents on Hope Road access Bibra Drive, especially for people attending the Blue Gum School?</li> <li>What will happen to the intersection at Bibra Drive and Hope Road?</li> <li>Consider a roundabout at intersection.</li> </ul>	DW1-1 P265, DW1-1 P251, DW1-1 P250, DW1-1 P255



Issue No	Functional Issue	Comment ID
<b>DW1-Fn41</b>	<p>Spanish Club, Lakeside Recreation Centre and Golf Course:</p> <ul style="list-style-type: none"> <li>Concerns regarding accessibility.</li> <li>The proposed alignment connecting Murdoch Drive will cause major impact on the Spanish Club and Golf Course along side of Baker road. These two community facilities are of significant importance.</li> <li>Consider a roundabout to link Farrington Road, Baker Road and Bibra Drive, instead of directly linking Bibra Drive to Murdoch Drive. This will spare the Spanish Club and the Golf Course.</li> <li>The community values the Spanish Club as part of its neighbourhood; it should not be cut off due to the proposed ramp. It should be simpler to cut off land for Murdoch University Farmland. After all, it is Government granted land.</li> </ul>	DW1-1 P082, DW1-1 P181, DW1-2 P266, DW1-1 P185, DW1-2 P122, DW1-2 P169, DW1-2 P234, DW1-2 P087, DW1-2 T110, DW1-2 P202,
<b>DW1-Fn42</b>	<p>Forrest Road/Sudlow Road:</p> <ul style="list-style-type: none"> <li>No high traffic to flow to Forrest Road. Consider decreased freight and traffic.</li> <li>The proposed plan for Sudlow concerning the traffic flow between North Lake Road and Stock Road is acceptable. At present, heavy traffic with large trucks using Forrest Road is quite disturbing. With the proposed plan, only local and low volume of traffic will flow onto Forrest Road, which will be a relief for the residents.</li> </ul>	DW1-1 T294, DW1-1 P314, DW1-1 P315
<b>DW1-Fn43</b>	<p>Roe/Murdoch:</p> <ul style="list-style-type: none"> <li>Prefer land from Murdoch University to be resumed as originally purposed and connection moved away from residential areas.</li> <li>Consider possible underpass at Murdoch University reserve.</li> </ul>	DW1-2 T080, DW1-2 T046, DW1-2 T126, DW1-2 P127, DW1-1 P238, DW1-2 P188
<b>DW1-Fn44</b>	<p>Pausin Crescent:</p> <ul style="list-style-type: none"> <li>Concerns regarding accessibility.</li> </ul>	DW1-2 T165, DW1-2 P170
<b>DW1-Fn45</b>	<p>Montessori School:</p> <ul style="list-style-type: none"> <li>General concerns regarding accessibility to the school, as it is growing.</li> <li>Concerns over increased traffic in the area.</li> </ul>	DW1-2 T208, DW1-2 T008

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Issue No	Functional Issue	Comment ID
DW1-Fn46	<p>On/off ramps:</p> <ul style="list-style-type: none"> <li>On/off ramps capable of allowing speeds to be maintained with minimal reduction and less traffic jams.</li> <li>Move ramps closer to alignment to reduce footprint.</li> <li>Do not have shared paths next to ramps as it is too dangerous.</li> <li>Tighten radius of ramps to reduce clearing and slow down traffic.</li> <li>Where possible, widen on/off ramps from Roe Highway on Government land.</li> </ul>	DW1-2 P254, DW1-2 P275, DW1-2 P151, DW1-2 T154, DW1-2 P152, DW1-2 P290, DW1-2 P289, DW1-1 T005, DW1-1 P253
DW1-Fn47	<p>Environmental offsets:</p> <ul style="list-style-type: none"> <li>Concerns regarding Roe 7 and Roe 8 offsets. Two offsets will be needed after construction of Roe 8.</li> </ul>	DW1-2 P291

Issue No	Process Issue	Comment ID
DW1-P1	We must ensure EPA proposals are watertight so that no comebacks will be created.	DW1-2 P242
DW1-P2	The road design engineers have done a great job in addressing all the considerations for access in Bibra Lake area.	DW1-1 P213
DW1-P3	Only one plan was available to comment on - old plan not available. Was also told that alternative plans would be at workshop - only one presented.	DW1-1 P232
DW1-P4	Cross sections A-A - D-D - will these be used in the final plan?	DW1-1 P263
DW1-P5	Map with the contours of the land would help with the knowledge.	DW1-1 P280
DW1-P6	Thank you for the online forum for those of us who cannot attend in person.	DW1-O P002
DW1-P7	<p>Lakeside Recreation Centre:</p> <ul style="list-style-type: none"> <li>We discussed options but more could be offered in the way of constructive connections that would be possible.</li> </ul>	DW1-2 P038

Issue No	Social Issue	Comment ID
DW1-S1	<p>Visual Impact, public art and landscaping:</p> <ul style="list-style-type: none"> <li>Use street kids/young artists for artwork on noise/concrete walls perhaps via competition and involve the community.</li> <li>Consider vegetation to soften the look.</li> <li>Artwork to convey a "sense of place" (e.g. reflect wildlife, vegetation).</li> <li>At Bibra Lake use art to represent the lake.</li> <li>Build visually appealing elevated roads.</li> <li>Reflect Roe 4 &amp; 5 artwork through this area, Stage 7 disliked.</li> <li>Reduce visibility of road.</li> </ul>	DW1-2 T013, DW1-2 T014, DW1-2 T015, DW1-2 T053, DW1-2 T054, DW1-2 P061, DW1-2 P062, DW1-2 T161, DW1-1 P009, DW1-1 P010, DW1-1 P020, DW1-1 P021, DW1-1 P022, DW1-1 P023, DW1-1 P024, DW1-1 P025, DW1-1 P026, DW1-1 P027, DW1-1 T039, DW1-1 P056, DW1-1 P061, DW1-1 P062, DW1-1 T070, DW1-1 P074, DW1-1 P084, DW1-1 T121, DW1-1 T122, DW1-1 P156, DW1-1 P262

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Issue No	Social Issue	Comment ID
DW1-S2	Retention of views desired - may require different noise mitigation.	DW1-2 T021, DW1-2 P024,
DW1-S3	Privacy impact on residences from highway users - keep at grade where possible.	DW1-2 P027
DW1-S4	Noise impacts: <ul style="list-style-type: none"> <li>Concerns regarding noise impacts on residential areas due to new road traffic increases on some existing roads (e.g. Farrington Road re. Murdoch Activity Centre access).</li> <li>Consider use of air brakes on heavy vehicles.</li> <li>Include vegetation between noise barriers and properties</li> </ul>	DW1-2 P029, DW1-2 P193, DW1-1 T094, DW1-1 T117, DW1-1 T119, DW1-1 T120, DW1-1 T123, DW1-1 P281, DW1-1 P286, DW1-1 P302
DW1-S5	Noise mitigation: <ul style="list-style-type: none"> <li>Earth bunds helpful and aesthetically pleasing when vegetated.</li> </ul>	DW1-2 P035
DW1-S6	Reduce footprint to minimise impact on residences.	DW1-2 T055
DW1-S7	Identify street lighting that will minimise impact on residences.	DW1-2 T056, DW1-2 P066
DW1-S8	Principal Shared Paths: <ul style="list-style-type: none"> <li>Consider trees/shade for paths.</li> </ul>	DW1-2 P063, DW1-2 P070
DW1-S9	Road and other signage: <ul style="list-style-type: none"> <li>Make visually appealing.</li> </ul>	DW1-2 P070
DW1-S10	Southern access to Murdoch Activity Centre: <ul style="list-style-type: none"> <li>Would devalue properties if linked to roundabout at Allendale Entrance/Farrington Road.</li> <li>Access for residents compromised.</li> </ul>	DW1-2 P095, DW1-2 P096, DW1-2 T182, DW1-2 P194
DW1-S11	Roe Highway/Bibra Drive access: <ul style="list-style-type: none"> <li>Concerns that the area will become a 'rat run' - senior citizen village and school on Bibra Drive.</li> </ul>	DW1-2 P098
DW1-S12	Drainage basins & sumps: <ul style="list-style-type: none"> <li>Potential to create mosquito breeding areas.</li> </ul>	DW1-2 T228, DW1-2 P270

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Issue No	Social Issue	Comment ID
DW1-S13	Land/property values: <ul style="list-style-type: none"> <li>Concerns regarding a potentially negative impact on property values.</li> </ul>	DW1-1 P060, DW1-1 P068, DW1-1 P234, DW1-1 T334
DW1-S14	Roe Highway Stage 7 (Kwinana Freeway to Karel Avenue): <ul style="list-style-type: none"> <li>Issues associated with prior experience of construction and operation at this location included; light spill, Principal Shared Path too close to homes, visibility of highway from back fence, impact on quality of life; likelihood of providing space for anti-social behaviour and potential negative impact on property values.</li> </ul>	DW1-1 T134, DW1-1 T135, DW1-1 T139, DW1-1 T141, DW1-1 T143, DW1-1 P343, DW1-1 P344, DW1-1 P345, DW1-1 P362

Issue No	Construction Issue	Comment ID
DW1-C1	Management of environmental issues/impact required to avoid spread of weeds and pollution.	DW1-2 P031
DW1-C2	Construction safety for workers and public (e.g. working near transmission lines).	DW1-2 P119
DW1-C3	Communication of construction activity to be timely, to include dates and duration for activities (particularly for heavy construction) and communication to extend at least four houses from works and to include advice on how to mitigate issues.	DW1-2 P121, DW1-1 P069, DW1-1 T145, DW1-1 T149, DW1-1 P166, DW1-1 P168, DW1-1 P172
DW1-C4	Noise during construction to be managed by selection of machinery and avoidance of out of hour's activity.	DW1-1 T118, DW1-1 P152
DW1-C5	Ensure efficient dust suppression.	DW1-1 T147, DW1-1 P155
DW1-C6	Reduce vibration and associated impacts (e.g. property damage) by using dead weight rollers.	DW1-1 T148, DW1-1 P151, DW1-1 P165, DW1-1 P171

Issue No	Construction Issue	Comment ID
DW1-C7	Pre-construction (dilapidation) surveys to be undertaken on properties in a 100m radius from construction activity with regular (at least monthly) check-ups.	DW1-1 T146, DW1-1 T150, DW1-1 P158, DW1-1 P169
DW1-C8	Provide detailed information, including maps, for access routes and detours etc.	DW1-1 P167
DW1-C9	Communicate contact details for emergencies, complaints and issues.	DW1-1 P170
DW1-C10	Roe Highway Stage 7 (Kwinana Freeway to Karel Avenue): Prior experience of construction and operation at this location prompted concerns about; ensuring pre-construction surveys are undertaken within 100m of construction activities, adequate communication, vibration and associated proximity to residences and property damage, noise modelling prior to construction, dust suppression and health and stress issues related to construction activity. Residents also requested that there be no sheet piling or rapid construction methods.	DW1-1 P124, DW1-1 P125, DW1-1 P126, DW1-1 T127, DW1-1 T128, DW1-1 T129, DW1-1 T130, DW1-1 T133, DW1-1 T140, DW1-1 P153, DW1-1 T321, DW1-1 T322, DW1-1 P339, DW1-1 P342
DW1-C11	No rapid construction methods.	DW1-1 P357, DW1-1 P350
DW1-C12	Enquires into construction methods: <ul style="list-style-type: none"> <li>Modular bridge sections.</li> <li>Use of cranes.</li> </ul>	DW1-2 P120

Issue No	Oppose	Comment ID
DW1-Op1	No Roe 8 Option: <ul style="list-style-type: none"> <li>Totally opposed to building Roe Highway.</li> <li>Consider road upgrades instead.</li> </ul>	DW1-1 P018, DW1-1 P019, DW1-1 P028, DW1-1 P035, DW1-1 P164, DW1-1 T319, DW1-1 P346, DW1-1 P335, DW1-1 P352, DW1-1 P359, DW1-O P004, DW1-O P014
DW1-Op2	Roe 8 Extension not a sustainable solution: <ul style="list-style-type: none"> <li>Will only shift the problem</li> <li>Need to expand Kwinana Freeway south</li> <li>Need to expand railway capacity to take containers off road</li> <li>Could sink railway through Fremantle/Esplanade.</li> </ul>	DW1-2 P287

Issue No	Support	Comment ID
DW1-Su1	Build the road: <ul style="list-style-type: none"> <li>Concerns about time delays and every chance should be taken to speed up the process.</li> </ul>	DW1-2 P241, DW1-O P006



## Design Workshop 2: Stock Road to North Lake Road (western section)

Held Tuesday 4 May 2010.

Issue No	Aboriginal Heritage Issue	Comment ID
DW2-A1	Destruction of Aboriginal sites between North Lake Road and Stock Road.	DW2-1-P004, DW2-0 S021, DW2-2 P087
DW2-A2	Art work: <ul style="list-style-type: none"> <li>Link to Aboriginal culture in the area.</li> </ul>	DW2-1-P046

Issue No	Economic Issue	Comment ID
DW2-Ec1	Allocate funds for public art: <ul style="list-style-type: none"> <li>Consider structures, Aboriginal art and sculptures.</li> </ul>	DW2-1-T098
DW2-Ec2	Allocate funds for vegetation instead of lighting.	DW2-1-T099
DW2-Ec3	Allocate funding for all types of noise mitigation.	DW2-2 T038
DW2-Ec4	Concerns that the highway will devalue property in surrounding areas.	DW2-1-T018, DW2-1-P021, DW2-0 S018

Issue No	Environmental Issue	Comment ID
DW2-En1	General environmental impact (unspecified).	DW2-1-P001, DW2-2 P086, DW2-2 T016, DW2-1-P004, DW2-2 P004, DW2-2 P087
DW2-En2	Avoid impacts on flora, fauna and vegetation throughout the project area through the optimisation of alignments and the use of bridge structures.	DW2-1-P001, DW2-1-P004

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Issue No	Environmental Issue	Comment ID
DW2-En3	Fauna habitat: <ul style="list-style-type: none"> <li>• Preserve habitat for all fauna species.</li> <li>• Preserve habitat for endangered species, including the Black Cockatoo and its feeding grounds.</li> <li>• Avoid impacts on Bandicoots and preserve their habitat.</li> <li>• Avoid impacts on Bobtail Skink.</li> </ul>	DW2-1-P004, DW2-1-P027, DW2-1-T053, DW2-2 P031, DW2-2 T035, DW2-0 M014, DW2-0 S021, DW2-0 S022, DW2-1-T058, DW2-2 T035, DW2-1-T059, DW2-2 P087
DW2-En4	Preserve vegetation and wildlife corridors or green belts.	DW2-1-P004, DW2-1-T025, DW2-1-T050, DW2-2 P036, DW2-2 P086, DW2-0 S022, DW2-0 P009
DW2-En5	Graceful Sun-moth: <ul style="list-style-type: none"> <li>• Preserve and enhance Graceful Sun-moth habitat.</li> <li>• Consider relocating the eastern Roe Highway access ramps onto Stock Road further south, to avoid the Graceful Sun-moth habitat.</li> </ul>	DW2-1-T025, DW2-1-P027, DW2-1-P038
DW2-En6	Concerns regarding air quality in residential areas.	DW2-1-P004, DW2-1-T057, DW2-2 P086, DW2-0 S021, DW2-0 S022, DW2-0 M008
DW2-En7	General concerns regarding road traffic noise and impacts to the environment.	DW2-1-P004, DW2-2 P033, DW2-2 P036, DW2-2 P086, DW2-0 S022, DW2-0 M008
DW2-En8	Road traffic noise mitigation: <ul style="list-style-type: none"> <li>• Involve the community in the selection of noise mitigation materials and their location.</li> <li>• Consider double glazing as a type of noise mitigation.</li> <li>• Select the most efficient noise mitigation materials.</li> </ul>	DW2-2 P030, DW2-2 P033, DW2-2 T035
DW2-En9	Destruction of ecosystem and loss of biodiversity.	DW2-2 P086
DW2-En10	Design retaining walls throughout the alignment to minimise the clearing of remnant vegetation.	DW2-2 P030, DW2-2 P031, DW2-2 T080

Issue No	Environmental Issue	Comment ID
DW2-En11	Light spill: <ul style="list-style-type: none"> <li>Concerns regarding light spill impacts in road reserve environment.</li> </ul>	DW2-2 T035, DW2-2 P032
DW2-En12	Revegetation: <ul style="list-style-type: none"> <li>Revegetate the road reserve.</li> <li>Consider revegetating the road reserve with species currently existing in the area.</li> <li>Revegetate road reserve with species that provide food for native fauna.</li> <li>Prevent erosion in cleared areas through the rapid planting and growth of vegetation.</li> </ul>	DW2-2 P031, DW2-2 T023, DW2-2 P030, DW2-1-T054, DW2-2 P031, DW2-1-T086
DW2-En13	Vegetation: <ul style="list-style-type: none"> <li>Retain the maximum amount of existing vegetation.</li> <li>Preserve vegetation and habitat to prevent the loss of spirit land, tranquillity, visual beauty, birds and windbreaks.</li> </ul>	DW2-1-P004, DW2-1-P047, DW2-1-T050, DW2-1-T053, DW2-2 T017, DW2-2 T022, DW2-2 P030, DW2-O P009, DW2-1-P004
DW2-En14	Nesting sites: <ul style="list-style-type: none"> <li>Preserve and create nesting hollows.</li> </ul>	DW2-1-T053, DW2-2 P031, DW2-1-T070
DW2-En15	Design and construct a tunnel.	DW2-2 P032, DW2-2 P036
DW2-En16	Design wildlife underpasses.	DW2-1-T071
DW2-En17	Plant water wise flora species on proposed land bridge.	DW2-1-T073
DW2-En18	Harness the latent energy that is created by the vehicular usage of the highway.	DW2-1-T079
DW2-En19	Create a habitat for the relocation of disturbed fauna by lining water basins to prevent water seepage.	DW2-1-T095
DW2-En20	Create an artificial ecosystem for the relocation of the longneck turtle.	DW2-1-T096

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Issue No	Environmental Issue	Comment ID
DW2-En21	Research and provide infrastructure for electric cars; <ul style="list-style-type: none"> <li>Docking stations.</li> </ul>	DW2-1-T100
DW2-En22	Investigate soil amendments as part of the Environmental Impact Assessment: <ul style="list-style-type: none"> <li>NVA.</li> <li>Red mud.</li> </ul>	DW2-2 T083
DW2-En23	Remove the road alignment from the Metropolitan Region Scheme due to its impact on the environment.	DW2-2 P086
DW2-En24	Manage stormwater runoff and design effective storm water treatment.	DW2-2 T082
DW2-En25	Realign the whole section from Forrest Road to Phoenix Road to avoid residential areas.	DW2-0 S021, DW2-O P009
DW2-En26	Increase in litter concerns.	DW2-0 S022
DW2-En27	Design spiral stairways on overpasses to help minimise clearing.	DW2-1-T022

Issue No	Function Issue	Comment ID
DW2-Fn1	Continuation of Roe Highway: <ul style="list-style-type: none"> <li>Continue Roe Highway to the west beyond Stock Road, terminating at Fremantle.</li> <li>Consider tunnelling parts or the entire road to Fremantle.</li> </ul>	DW2-1-P003, DW2-1-P006, DW2-0 M003, DW2-1-T030, DW2-1-T121, DW2-1-T030, DW2-1-P048, DW2-1-T018, DW2-1-P038

Issue No	Function Issue	Comment ID
DW2-Fn2	<p>Counsel Road:</p> <ul style="list-style-type: none"> <li>Counsel Road is an issue. Maintain service. Do not close.</li> <li>Retain connection at Counsel Road and Stock Road.</li> <li>Maintain Counsel Road for local traffic only.</li> <li>Consider overpass/underpass at Counsel Road to Halstead. Must maintain link from Hamilton Hill to Coolbellup.</li> <li>Hard to get to Hamilton Hill from Counsel Road. Consider intersection for easy manoeuvres.</li> </ul>	DW2-1-T016, DW2-2 T047, DW2-2 T024, DW2-2 T015, DW2-2 P007, DW2-2 T010, DW2-1-T063, DW2-1-T062, DW2-1-T019
DW2-Fn3	Roe Highway must be a firm option to overcome high density living.	DW2-1-P006
DW2-Fn4	<p>Traffic lights:</p> <ul style="list-style-type: none"> <li>Design without traffic lights to minimise stop/start movements.</li> </ul>	DW2-1-T015, DW2-O P003, DW2-1-T064, DW2-2 P025, DW2-1-T019
DW2-Fn5	<p>North Lake Road and Beeliar Drive:</p> <ul style="list-style-type: none"> <li>Way too busy, this needs to be rectified as part of Roe Highway Extension.</li> </ul>	DW2-1-T034
DW2-Fn6	<p>Diamond intersection:</p> <ul style="list-style-type: none"> <li>How will the planned Diamond intersection at North Lake Road cope with traffic?</li> </ul>	DW2-2 P030

Issue No	Function Issue	Comment ID
DW2-Fn7	<p>Principal Shared Path (PSP):</p> <ul style="list-style-type: none"> <li>• Ensure a PSP is built along the entire alignment, on both sides of the highway, including intersections and bridges.</li> <li>• Ensure pedestrian access to all areas. Incorporate overpasses/underpasses where possible. Consider connectivity to existing PSP in all residential areas and Roe 7.</li> <li>• Given the number of vehicles expected, all intersections need to be grade separated.</li> <li>• Consider locating PSP away from busy roads so that pedestrians and cyclists are not breathing in exhaust fumes.</li> <li>• Consider separate paths for cyclists and pedestrians.</li> <li>• Incorporate recreational trails.</li> </ul>	DW2-1-P037, DW2-1-T072, DW2-1-T082, DW2-2 P007, DW2-2 T061, DW2-1-T083, DW2-2 T062, DW2-2 T050, DW2-1-T026, DW2-2 T049, DW2-2 T014, DW2-2 T024, DW2-2 T015, DW2-1-T094, DW2-1-T043, DW2-1-T065, DW2-1-T102, DW2-1-P046, DW2-1-T063, DW2-1-T062, DW2-1-P044, DW2-1-T019, DW2-1-T025, DW2-1-T039, DW2-1-T011, DW2-1-T026, DW2-1-T042, DW2-1-T022, DW2-1-T026
DW2-Fn8	<p>Barriers:</p> <ul style="list-style-type: none"> <li>• Consider steep retaining walls to keep as much vegetation as possible.</li> <li>• Sink Roe Highway to solve noise issues and visual impacts.</li> <li>• Consider pushing road to one side of MRS Reserve.</li> <li>• Construct limestone noise walls.</li> </ul>	DW2-1-P046, DW2-1-P048, DW2-2 T053, DW2-2 T076, DW2-1-T025, DW2-1-P038, DW2-0 S029
DW2-Fn9	<p>Tunnelling:</p> <ul style="list-style-type: none"> <li>• Tunnel Roe 8.</li> <li>• Consider boring machine used at William Street to preserve the environment.</li> </ul>	DW2-2 P007, DW2-2 P036, DW2-2 T016
DW2-Fn10	<p>Tolls:</p> <ul style="list-style-type: none"> <li>• Consider truck tolls for use.</li> </ul>	DW2-2 P007

Issue No	Function Issue	Comment ID
<b>DW2-Fn11</b>	<p>Stock Road/Roe Highway intersection:</p> <ul style="list-style-type: none"> <li>The proposed Stock Road intersection looks like it is using a lot of land.</li> <li>Could this be redesigned for a smaller footprint?</li> <li>Consider designing a T-junction intersection for a smaller footprint.</li> <li>Consider moving intersection south.</li> <li>Connectivity concerns. Traffic should free flow on to Stock Road from Roe Highway, instead of being forced to stop at intersection to reduce noise. Consider Diamond intersection.</li> <li>Stock Road not adequate to deal with increased traffic flow. Consider upgrading now.</li> <li>Safety concerns. Consider protected pedestrian access.</li> <li>This section of Roe Highway and proposed ramps seem to serve regional connectivity but reduces local connectivity hugely, reduces movement.</li> <li>Is there any lesson to be learnt from heavy vehicles coming off Roe Highway to Freeway e.g. accidents - comparing this to off ramps at Roe Highway intersection at Stock Road?</li> <li>Flyover for vehicles at Stock Road - 33% increase going south. Roads to go under new flyovers.</li> </ul>	DW2-2 P007, DW2-0 M005, DW2-O P010, DW2-2 T043, DW2-2 T065, DW2-2 T058, DW2-2 T026, DW2-2 T048, DW2-2 P007, DW2-1-P127, DW2-2 T055, DW2-2 T056, DW2-2 T059, DW2-1-T025, DW2-1-T019, DW2-1-P038, DW2-1-P040, DW2-1-P002, DW2-2 P028, DW2-2 T022, DW2-2 P033
<b>DW2-Fn12</b>	Satisfied with overall concept design.	DW2-2 T013, DW2-O P003, DW2-O P010, DW2-O P013, DW2-O P014, DW2-1-P111
<b>DW2-Fn13</b>	<p>Alternative solutions:</p> <ul style="list-style-type: none"> <li>Explore alternative options to building the road. Consider light rail.</li> <li>Use Phoenix Road, as it is already a four lane option.</li> <li>If Roe 8 needs to be built, why not further south through the industrial area?</li> <li>Use Water Corporation land at Stock Road near Ralston Street.</li> </ul>	DW2-0 M013, DW2-0 S020, DW2-0 S021, DW2-0 S023, DW2-0 M011, DW2-2 T064, DW2-2 P001, DW2-2 P002, DW2-2 P004, DW2-O P012,



Issue No	Function Issue	Comment ID
DW2-Fn14	<p>Phoenix Road:</p> <ul style="list-style-type: none"> <li>Consider traffic monitoring at Phoenix Road as a comparison.</li> <li>Phoenix Road interchange in the future should be a Diamond interchange, which will provide a good traffic connection to both Stock Road and Phoenix Road.</li> <li>Consider connecting Phoenix Road to Roe Highway Extension.</li> </ul>	DW2-2 T078, DW2-1-T043, DW2-1-T039, DW2-1-P040
DW2-Fn15	<p>Increased traffic:</p> <ul style="list-style-type: none"> <li>General concerns with areas that are not ready to cope with increased traffic (not specified).</li> <li>Consider traffic calming.</li> <li>Trucks are a concern. Consider fixed speed cameras on the highway, to ensure trucks cannot barrel down the highway.</li> <li>Don't look at the Roe Highway Extension in isolation, must look at where it goes next (e.g. Stock Road, High Street). Consider upgrades to deal with problems of increased traffic on local adjoining roads.</li> </ul>	DW2-1-T115, DW2-2 P007, DW2-1-T069, DW2-1-T067, DW2-1-T120, DW2-1-T119, DW2-1-T065, DW2-1-P046, DW2-1-T023, DW2-1-T018, DW2-1-T025, DW2-1-T019, DW2-1-T020, DW2-1-P040, DW2-2 P002,
DW2-Fn16	<p>Planning for the future:</p> <ul style="list-style-type: none"> <li>Allocate space (road reserves) for future infrastructure.</li> <li>Consider light rail from Fremantle to Kwinana Freeway.</li> <li>Traffic congestion over 60,000 will require 3 lanes.</li> </ul>	DW2-1-T090, DW2-1-T051, DW2-1-T080, DW2-2 T019, DW2-1-T031
DW2-Fn17	<p>Forrest Road/Roe Highway:</p> <ul style="list-style-type: none"> <li>Consider connecting Forrest Road to Roe Highway.</li> </ul>	DW2-O P010, DW2-O P013, DW2-O P014, DW2-1-T023

Issue No	Function Issue	Comment ID
DW2-Fn18	<p>Sudlow Road/Coolbellup Avenue:</p> <ul style="list-style-type: none"> <li>• Maintain connectivity between roads, including PSP access.</li> <li>• Consider no access from Sudlow Road/Coolbellup Avenue.</li> <li>• Coolbellup Avenue doesn't connect straight through to Sudlow Road - this stops traffic wanting to cut straight through.</li> <li>• Ensure local traffic only. Trucks rat run from Phoenix Road to Winterfold Road using Sudlow/Coolbellup. Consider traffic calming.</li> <li>• Access to Forrest Road is important to residents.</li> <li>• Improve lighting around the area.</li> <li>• Will there be a cut at the top of the hill at Sudlow Road? Safety is an issue and it would be good for access if road is at a consistent level.</li> </ul>	DW2-0 S036, DW2-2 T061, DW2-1-T114, DW2-1-T107, DW2-2 T047, DW2-0 M004, DW2-2 T084, DW2-2 T034, DW2-2 T066, DW2-1-P101, DW2-1-T108, DW2-1-T106, DW2-1-T076, DW2-1-T110, DW2-1-T068, DW2-1-T093, DW2-1-P124, DW2-1-P111, DW2-2 P025, DW2-1-T030, DW2-1-T025, DW2-2 T008
DW2-Fn19	<p>Connectivity:</p> <ul style="list-style-type: none"> <li>• Maintain connectivity and access between all residential areas.</li> <li>• Access from Forrest Road to Coolbellup and Fremantle. It is unclear whether we will easily (e.g. by foot) be able to access services at Coolbellup shopping and schools and community centres. Also, using Phoenix Road to access Fremantle is very inconvenient.</li> </ul>	DW2-2 T044, DW2-0 S031, DW2-2 T015, DW2-2 T016, DW2-2 T010, DW2-1-T062, DW2-1-T018, DW2-1-P040
DW2-Fn20	Why can't other roads be upgraded like Thomas Road?	DW2-2 T040

Issue No	Function Issue	Comment ID
DW2-Fn21	<p>Forrest Road:</p> <ul style="list-style-type: none"> <li>Maintain local connectivity.</li> <li>Consider no access to Forrest Road from Roe Highway.</li> <li>Why no through fare at Forrest Road?</li> <li>Forrest Road is a well developed facility and should be preserved at least west of Stock Road.</li> <li>Forrest Road currently being used as a rat run, especially by container trucks. Maintain as local road with traffic calming.</li> <li>Use existing parts of Forrest Road to avoid clearing remnant vegetation.</li> <li>Forrest Road has just been re-surfaced. How much money has been spent by Main Roads for this and why rip it all up to build Roe Highway?</li> </ul>	DW2-2 T057, DW2-2 T012, DW2-2 P007, DW2-2 T046, DW2-2 T045, DW2-2 T060, DW2-0 S038, DW2-2 T026, DW2-1-T065, DW2-1-P041, DW2-2 P025, DW2-1-P048, DW2-1-T018, DW2-1-T039, DW2-0 S033, DW2-O P012
DW2-Fn22	Minimise medians and use the barriers similar to the ones used on the Mitchell Freeway.	DW2-2 T051
DW2-Fn23	<p>Cockburn Road:</p> <ul style="list-style-type: none"> <li>Consider continuing Forrest Road to Cockburn Road. Call it Roe Road or extend Roe Highway e.g. Roe 9.</li> </ul>	DW2-1-P028
DW2-Fn24	Dissatisfaction with South Metro Connect traffic modelling figures and consider the existing roads adequate.	DW2-2 T042
DW2-Fn25	<p>North Lake Road:</p> <ul style="list-style-type: none"> <li>General enquiries regarding traffic, construction and the depth of the intersection.</li> <li>Concerns regarding traffic turning south on North Lake Road to Russel Road instead of South Street. These roads are not prepared for increased traffic. Consider preparing North Lake Road for increased capacity.</li> <li>Consider possible over/underpasses over North Lake Road.</li> </ul>	DW2-1-T117, DW2-1-P122, DW2-1-P123, DW2-1-T031, DW2-1-T104

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Issue No	Function Issue	Comment ID
DW2-Fn26	Public transport access: <ul style="list-style-type: none"> <li>Maintain current access to public transport.</li> <li>Consider more public transport routes and connectivity to all areas.</li> <li>Consider dedicated bus lane.</li> <li>Is there a bus route on Roe 7 and would it continue on?</li> </ul>	DW2-2 T019, DW2-2 P007, DW2-2 T049, DW2-1-T052, DW2-2 T011, DW2-2 T024, DW2-1-T094, DW2-2 T010, DW2-1-T065, DW2-1-T023, DW2-1-T018, DW2-1-T019, DW2-1-P021, DW2-1-T017
DW2-Fn27	Phoenix Road and Southwell Road intersection: <ul style="list-style-type: none"> <li>Ensure intersection at Phoenix Road and Southwell Road is able to handle increased traffic.</li> </ul>	DW2-1-T026
DW2-Fn28	Ralston Street: <ul style="list-style-type: none"> <li>Accessibility concerns. Ensure connectivity to adjoining roads.</li> <li>Consider crossings to have grade separation or protected pedestrian access.</li> </ul>	DW2-2 T063, DW2-2 T065, DW2-2 T058, DW2-1-T063, DW2-1-T062, DW2-1-T019
DW2-Fn29	Keep everything the same.	DW2-2 P036
DW2-Fn30	Russel Road free flowing.	DW2-1-T116
DW2-Fn31	Western Power: <ul style="list-style-type: none"> <li>Consult with Western Power before submission of the Public Environmental Review.</li> <li>Main Roads WA to liaise with Western Power. Consider increasing height of powerlines across Stock Road.</li> <li>General enquiries concerning high and low voltage distribution.</li> <li>Relocate residential powerlines to road reserve.</li> <li>Consider placing powerlines underground.</li> </ul>	DW2-1-T031, DW2-1-T020, DW2-1-P029, DW2-1-T077, DW2-1-T092, DW2-2 T009, DW2-0 S034

Issue No	Function Issue	Comment ID
DW2-Fn32	<p>Hamilton Senior High School:</p> <ul style="list-style-type: none"> <li>Consider traffic flow and access to Hamilton Senior High School so that daily access and emergency access is maximised.</li> <li>Comprehensive studies and consultation with the school, council and the community, to find a better solution to access to the school.</li> <li>Enquires regarding public transport access to the school. Ensure public transport services to the school are sufficient.</li> <li>Provide pedestrian access from Roe Highway to the high school.</li> </ul>	DW2-1-P112, DW2-1-T023, DW2-1-T030, DW2-1-T063, DW2-1-P040, DW2-1-T013, DW2-1-T026, DW2-0 SV017, DW2-1-T030
DW2-Fn33	<p>Waverly Road/North Lake Road:</p> <ul style="list-style-type: none"> <li>Intersection is already heavily congested, difficult to get from Coolbellup to Farrington to Kwinana Freeway. How will this be addressed?</li> </ul>	DW2-1-T075
DW2-Fn34	Urban drainage - soil amendment.	DW2-2 P025
DW2-Fn35	<p>Forrest Road/Coolbellup Avenue:</p> <ul style="list-style-type: none"> <li>Keep Forrest Road and Coolbellup Avenue as planned. Satisfied to have Forrest Road discontinued and no connection to Coolbellup Avenue.</li> </ul>	DW2-1-P089
DW2-Fn36	<p>Ferdinand Crescent:</p> <ul style="list-style-type: none"> <li>Consider opening Ferdinand Crescent to allow access to Coolbellup Avenue.</li> </ul>	DW2-0 S028
DW2-Fn37	No access out of Gonzalo Place.	DW2-0 S025
DW2-Fn38	<p>Area adjacent to Sebastian Crescent and Forrest Road:</p> <ul style="list-style-type: none"> <li>Proposed lanes not in middle of road reserve?</li> </ul>	DW2-0 S024
DW2-Fn39	Make allowance for westward extension.	DW2-1-T118

Issue No	Function Issue	Comment ID
DW2-Fn40	On/off ramps: <ul style="list-style-type: none"> <li>Consider at least 2 lanes for high wide load traffic.</li> <li>South Metro Connect to liaise with Heavy Vehicle Advisory Group regarding high-wide access.</li> </ul>	DW2-1-T113, DW2-1-T033
DW2-Fn41	Lighting: <ul style="list-style-type: none"> <li>Consider low lighting to minimise impacts.</li> </ul>	DW2-1-T025
DW2-Fn42	Additional information: <ul style="list-style-type: none"> <li>Consider a longitudinal depiction of the proposed road, which includes topography of existing land levels and the elevated barriers.</li> </ul>	DW2-1-P126
DW2-Fn43	Sebastian Crescent: <ul style="list-style-type: none"> <li>Locate highway as far away from Sebastian Crescent as possible.</li> </ul>	DW2-2 P036

Issue No	Process Issue	Comment ID
DW2-P1	Early planning prior to construction.	DW2-1-T055
DW2-P2	Insufficient engagement with the Aboriginal community.	DW2-2 P032
DW2-P3	Poorly informed decision making due to the short timeframe and lack of environmental survey results: <ul style="list-style-type: none"> <li>More information is needed on Black Cockatoo habitat.</li> <li>There may be species of insects within the area that have not yet been identified.</li> </ul>	DW2-2 T018, DW2-2 T070, DW2-1-P004
DW2-P4	Dissatisfaction with decision to build the highway and its impacts on the local communities.	DW2-0 M012

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Issue No	Process Issue	Comment ID
DW2-P5	Process is fundamentally flawed as the community is not properly represented. Dissatisfaction over the lack of attendees at the workshop.	DW2-2 P087

Issue No	Social Issue	Comment ID
DW2-S1	Road location: <ul style="list-style-type: none"> <li>Align highway in the centre of the road reserve or as far away from residences on either side to minimise noise.</li> </ul>	DW2-0 S027, DW2-0 S035
DW2-S2	Noise barriers: <ul style="list-style-type: none"> <li>Avoid constructing vertical noise walls.</li> <li>Construct solid walls and avoid colour bond.</li> <li>Locate noise walls away from homes and next to highway.</li> </ul>	DW2-1-T014, DW2-1-T008, DW2-2 T020, DW2-2 T052, DW2-2 T081
DW2-S3	Road surface materials: <ul style="list-style-type: none"> <li>Quiet road surface material should be used throughout the entire Roe Highway Extension.</li> <li>Use open road surface instead of chip seal.</li> </ul>	DW2-1-P040, DW2-1-P044, DW2-1-T024, DW2-1-T042, DW2-2 P028, DW2-2 P029
DW2-S4	Put the road in cut to reduce the noise.	DW2-1-P004, DW2-2 P028, DW2-0 M006, DW2-0 S029
DW2-S5	Use earthbound with fencing for safety instead of noise walls.	DW2-1-T078
DW2-S6	Noise mitigation – function: <ul style="list-style-type: none"> <li>Test noise levels prior to construction and commit to maintaining existing levels.</li> </ul>	DW2-2 P028, DW2-2 P029, DW2-2 T072, DW2-0 M002



Issue No	Social Issue	Comment ID
DW2-S7	<p>Stock Road:</p> <ul style="list-style-type: none"> <li>Place noise wall on bridge at Stock Road.</li> <li>Place noise walls on ramps at Stock Road.</li> <li>Extend noise mitigation on Stock Road up to Winterfold Road.</li> </ul>	DW2-1-T024, DW2-2 P028, DW2-2 T052
DW2-S8	<p>Curven Road:</p> <ul style="list-style-type: none"> <li>Provide noise walls for properties on Curven Road that back onto Stock Road.</li> <li>Provide noise modelling for properties on Curven Road.</li> </ul>	DW2-2 T037, DW2-2 T079
DW2-S9	<p>Noise impact:</p> <ul style="list-style-type: none"> <li>General concern for noise throughout entire section.</li> <li>Concern regarding noise at Stock Road.</li> </ul>	DW2-0 M008, DW2-1-T019, DW2-0 M010, DW2-0 S018, DW2-0 S021, DW2-0 S026, DW2-2 T016, DW2-2 P007, DW2-1-T065
DW2-S10	<p>Visual impact – general:</p> <ul style="list-style-type: none"> <li>Provide vegetation wherever possible. Provide landscaping of the cleared areas to improve aesthetics.</li> <li>Ensure that visual amenity is incorporated into the design.</li> <li>Place road in deep-cut to make it out of sight.</li> <li>Close proximity of road to properties will reduce visual amenity.</li> <li>The highway will be unsightly.</li> </ul>	DW2-1-P049, DW2-0 M006, DW2-1-P125, DW2-0 S018, DW2-2 T016, DW2-1-T043, DW2-2 S085, DW2-0 S019, DW2-0 S021, DW2-0 S032, DW2-1-T025
DW2-S11	<p>Visual impact – landscaping:</p> <ul style="list-style-type: none"> <li>Trim the trees between North Lake Road and Coolbellup Avenue.</li> <li>Maintain the natural feel of the area.</li> <li>Maintain the maximum amount of natural bushland and vegetation.</li> <li>Replicate Roe Highway Stage 7 landscaping around noise walls.</li> </ul>	DW2-1-T042, DW2-2 T020, DW2-2 T021, DW2-2 P028, DW2-2 P036, DW2-0 M002, DW2-0 M010, DW2-0 S018, DW2-0 S037, DW2-0 S037, DW2-2 S085

Issue No	Social Issue	Comment ID
DW2-S12	<p>Visual impact - overpasses and structures:</p> <ul style="list-style-type: none"> <li>Involve the community in the creation of Indigenous-themed artwork and landscaping that retains the maximum amount of remnant bushland to improve the aesthetics of overpasses and structures.</li> <li>Use grey concrete and neutral colours for retaining walls.</li> <li>Use sloping retaining walls instead of vertical walls.</li> <li>Design structures to be aesthetically pleasing.</li> </ul>	DW2-1-T009, DW2-1-T042, DW2-1-P125, DW2-2 T067
DW2-S13	<p>Visual impact - noise mitigation:</p> <ul style="list-style-type: none"> <li>Provide landscaping of the areas surrounding noise walls to improve aesthetics</li> <li>Provide artwork on noise walls to improve aesthetics.</li> <li>Use earthbound as noise mitigation with vegetation on top for aesthetic qualities.</li> <li>Replicate Roe Highway Stage 7 noise walls.</li> </ul>	DW2-1-T014, DW2-1-T078, DW2-2 T020, DW2-1-T032, DW2-1-T078, DW2-1-T085
DW2-S14	<p>Graffiti:</p> <ul style="list-style-type: none"> <li>Provide artwork wherever possible to reduce the likelihood of graffiti.</li> <li>Plant thorn bushes at the bottom of noise walls to prevent graffiti.</li> <li>Provide water features next to noise walls to reduce the likelihood of graffiti.</li> <li>Provide vegetation or anything that will reduce the likelihood of graffiti.</li> </ul>	DW2-1-P049, DW2-1-T032, DW2-1-T084, DW2-1-T088
DW2-S15	<p>Lighting impacts:</p> <ul style="list-style-type: none"> <li>Maintain low level of residual light in residential areas around the Stock Road and Roe Highway interchange.</li> </ul>	DW2-1-T007, DW2-2 T068, DW2-2 T069, DW2-0 M008

Issue No	Social Issue	Comment ID
DW2-S16	<p>Health and wellbeing:</p> <ul style="list-style-type: none"> <li>Quality of life will be affected by pollution and noise even with noise mitigation.</li> <li>Minimise enclosure effect on surrounding homes by using landscaped earthbound instead of retaining walls.</li> </ul>	DW2-1-T008, DW2-0 S030, DW2-1-P004, DW2-O P001, DW2-O P012
DW2-S17	<p>Recreational impacts:</p> <ul style="list-style-type: none"> <li>Provide recreation areas to supplement the cleared existing bushland.</li> <li>Landscape and provide recreational and pet access to remaining bushland in the road reserve.</li> <li>Create aesthetically pleasing parks and walkways throughout the area to improve local amenity.</li> <li>Maintain access to all recreation areas.</li> </ul>	DW2-1-P004, DW2-0 M015, DW2-1-T010, DW2-1-T025, DW2-1-T026, DW2-1-T012, DW2-1-T097, DW2-1-T103, DW2-2 T021, DW2-0 M015
DW2-S18	<p>Community impacts</p> <ul style="list-style-type: none"> <li>Prevent the highway from causing a division in the community between south and north.</li> <li>Remove the impact on the wetlands to maintain the tranquillity of the area.</li> </ul>	DW2-1-T036, DW2-2 P086
DW2-S19	<p>Safety:</p> <ul style="list-style-type: none"> <li>Incorporate effective pedestrian and community safety standards into the road and urban landscape designs.</li> <li>Incorporate safety measures into shared pathways including lighting, fencing, vegetation and semi-enclosed overpasses for visibility and to prevent rock throwing.</li> <li>Remove Coolbellup Avenue/Sudlow Road realignment to prevent home burglaries.</li> </ul>	DW2-1-P005, DW2-1-T022, DW2-1-P061, DW2-1-T091, DW2-1-P125, DW2-2 S085

Issue No	Social Issue	Comment ID
DW2-S20	<p>Principal Shared Path:</p> <ul style="list-style-type: none"> <li>Consider increasing the size of the shared pathway to three metres.</li> <li>Integrate shared pathway with local pathways to provide access to bus stops.</li> <li>Provide maintenance of shared pathways.</li> <li>Provide adequate lighting on pathways.</li> <li>Signpost areas of Aboriginal significance.</li> <li>Provide connections to local pathway network in locations that give the shortest access to local amenities and facilities.</li> <li>Provide access for all demographics and remove all barriers to people with disabilities.</li> <li>Replace land bridge with a simple and aesthetically pleasing overpass.</li> </ul>	DW2-1-T010, DW2-1-T017, DW2-1-T022, DW2-2 T071, DW2-1-T026, DW2-1-T074

Issue No	Construction Issue	Comment ID
DW2-C1	<p>Accessibility:</p> <ul style="list-style-type: none"> <li>Maintain accessibility to all residential areas during construction.</li> </ul>	DW2-1-T034, DW2-1-T035
DW2-C2	Minimise construction footprint.	DW2-2 T023, DW2-2 P030
DW2-C3	Light rail while they are building the road to connect east to west.	DW2-1-T066
DW2-C4	Concerns regarding work safe clearance issues during construction.	DW2-1-P029

Issue No	Oppose	Comment ID
DW2-Op1	<p>No Roe 8:</p> <ul style="list-style-type: none"> <li>Do not put the road through.</li> <li>Dissatisfied that "No Roe" option does not exist.</li> <li>\$550 million is not a worthwhile investment, especially as it compromises the wetlands and quality of life for thousands of people.</li> <li>Fail to understand how the Roe Highway Extension will provide any benefits.</li> </ul>	DW2-1-P004, DW2-2 P036, DW2-O P001, DW2-2 P027, DW2-0 M016, DW2-2 P001, DW2-2 P002, DW2-2 P004, DW2-2 P005, DW2-2 T008, DW2-2 P086, DW2-0 M007, DW2-2 P087, DW2-O P004, DW2-O P007, DW2-O P011, DW2-O P012

Issue No	Support	Comment ID
DW2-Su1	<p>Yes to Roe 8:</p> <ul style="list-style-type: none"> <li>Roe 8 will pull all traffic to an efficient pathway to the east. It will eliminate congestion on local roads and restore tranquillity to the surrounding suburbs.</li> <li>This cannot come soon enough.</li> <li>Perth is a growing city with a growing volume of traffic, which will need management.</li> </ul>	DW2-O P002, DW2-O P005, DW2-O P006

## Design Workshop 3: North Lake Road to Bibra Drive (central 'wetlands' section)

Held Tuesday 1 June 2010.

Issue No	Aboriginal Heritage Issue	Comment ID
DW3-A1	General concerns for Aboriginal heritage (unspecified).	DW3-2 T264
DW3-A2	Destruction of Aboriginal sites between North Lake Road and Bibra Drive.	DW3-1-T032
DW3-A3	Disappointment over the lack of Indigenous people represented.	DW3-1-P080
DW3-A4	Indigenous input.	DW3-1-T032
DW3-A5	Studies taken in Aboriginal heritage areas to identify their significance.	DW3-1-T032, DW3-1-T004, DW3-2 E023, DW3-2 T148
DW3-A6	Develop interpretative trails: <ul style="list-style-type: none"> <li>Include 'replacement' ceremonies for any heritage that is relocated.</li> </ul>	DW3-1-T043, DW3-2 T270

Issue No	Economic Issue	Comment ID
DW3-Ec1	Environmental commitment: <ul style="list-style-type: none"> <li>Allocate funds to re-vegetation, instead of art.</li> <li>Maintain a secure budget for reducing offsets that cannot be challenged later on.</li> <li>Fund existing volunteers and organisations that already show a commitment to the area.</li> </ul>	DW3-2 T257, DW3-2 T250, DW3-1-P067, DW3-2 P028, DW3-O P003
DW3-Ec2	Fund education program to discourage fertiliser habits for residents and stakeholders in the catchment.	DW3-2 T251

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 South Metro Connect, a partnership between Main Roads and AECOM for the project development phase of the Roe Highway Extension

AECOM Australia Pty Ltd  
 ABN 20 093 846 925



Issue No	Economic Issue	Comment ID
DW3-Ec3	Allocate funding to an alternative to Roe Highway: <ul style="list-style-type: none"> <li>Consider light rail as an alternative to the Roe Highway Extension.</li> </ul>	DW3-2 P097, DW3-1-P096, DW3-1-P059, DW3-1-P062, DW3-1-P070, DW3-1-P071, DW3-1-P092, DW3-1-P071, DW3-2 T014
DW3-Ec4	Allocate funding for suspension bridge over wetlands.	DW3-O P001, DW3-1-P078, DW3-1-P067
DW3-Ec5	Allocate funding for enclosed tunnel/walled road.	DW3-2 T231
DW3-Ec6	Concerns over costs.	DW3-2 T126, DW3-1-P062
DW3-Ec7	Roe Highway Extension is needed to meet Perth's growing population and traffic demands.	DW3-1-P061, DW3-O P006
DW3-Ec8	How will public transport routes be affected?	DW3-2 P018
DW3-Ec9	Allocate funding to site management.	DW3-2 T254
DW3-Ec10	To minimise cost and environmental impacts, Roe Highway should be kept to four lanes.	DW3-2 P028
DW3-Ec11	Freight terminals: <ul style="list-style-type: none"> <li>Relocate out of city and built-up areas.</li> </ul>	DW3-2 P028
DW3-Ec12	Legacy funding program commitment required to implement measures that may take several years.	DW3-2 T258

Issue No	Environmental Issue	Comment ID
DW3-En1	General environmental impact concerns (unspecified).	DW3-2 P097, DW3-1-T040, DW3-1-P052, DW3-1-P062, DW3-1-P071, DW3-1-P087, DW3-2 P029, DW3-2 T095, DW3-2 P028, DW3-2 T123, DW3-2 P272, DW3-2 T078, DW3-1-P086, DW3-2 P208, DW3-1-P071, DW3-O P008, DW3-1-T001, DW3-1-P063

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South Metro Connect, a partnership between Main Roads and AECOM for the project development phase of the Roe Highway Extension



Issue No	Environmental Issue	Comment ID
DW3-En2	General wildlife concerns: <ul style="list-style-type: none"> <li>Foxes, turtles, birds, swans, ducks, bandicoots, lizards - maintain habitat and minimise impacts.</li> </ul>	DW3-1-P082, DW3-2 T171, DW3-2 T222, DW3-2 P238, DW3-2 T175, DW3-2 T172, DW3-2 T173, DW3-2 T174, DW3-1-P064, DW3-1-P079
DW3-En3	Bridges: <ul style="list-style-type: none"> <li>Avoid impacts on flora, fauna, wetlands and vegetation throughout the project area through the optimisation of alignments, ecological links and the use of bridge structures.</li> <li>Ensure fauna and pedestrian connections.</li> <li>The highway should be split in the raised area so that light and rain can get to the ground in between the two directions of the highway.</li> </ul>	DW3-1-P078, DW3-1-T024, DW3-1-T033, DW3-1-T038, DW3-1-T039, DW3-1-P049, DW3-1-P050, DW3-1-P055, DW3-1-P059, DW3-1-P087, DW3-2 P019, DW3-2 T037, DW3-2 T039, DW3-2 T089, DW3-2 P118, DW3-2 T230, DW3-1-P082, DW3-1-P075, DW3-2 T048, DW3-2 P100, DW3-2 D015, DW3-2 D017, DW3-1-T043, DW3-1-P054, DW3-2 T032, DW3-1-T004, DW3-1-T007, DW3-2 P110, DW3-2 T010, DW3-2 T075, DW3-2 P198, DW3-1-P081, DW3-1-P079, DW3-1-T028, DW3-1-T044, DW3-1-T027, DW3-1-T008, DW3-1-T011, DW3-1-P069, DW3-1-P074, DW3-2 P001, DW3-2 T011, DW3-2 P274, DW3-2 P064, DW3-2 D008, DW3-2 T093, DW3-2 P117
DW3-En4	Montessori School: <ul style="list-style-type: none"> <li>Concerns over accessibility and noise/air pollution.</li> <li>Explore alternative options (i.e. buy out and relocate).</li> </ul>	DW3-1-P075, DW3-1-T010,
DW3-En5	Carbon offsets: <ul style="list-style-type: none"> <li>Concerns over management of carbon offsets/pollution from increased traffic.</li> </ul>	DW3-2 T259, DW3-2 T045, DW3-1-P092

Issue No	Environmental Issue	Comment ID
DW3-En6	<p>Environmental enhancement:</p> <ul style="list-style-type: none"> <li>Commitment to revegetation/rehabilitation, weed control and environmental enhancement throughout the project area, including wetlands, habitats and underneath bridges/structures.</li> <li>Water level management for lakes/swamps; concerns over decreasing water levels.</li> </ul>	DW3-1-T003, DW3-1-T033, DW3-2 P020, DW3-2 P029, DW3-1-P055, DW3-1-T024, DW3-2 T256, DW3-2 T253, DW3-2 T249, DW3-2 P203, DW3-2 P190, DW3-2 T146, DW3-2 T139, DW3-1-P049, DW3-2 T072, DW3-O P002, DW3-O P005, DW3-O P007, DW3-1-P079, DW3-1-T041, DW3-1-P069, DW3-2 P102, DW3-2 P194, DW3-2 P189, DW3-2 P193
DW3-En7	Concerns over timeframe available to conduct environmental studies.	DW3-1-P067
DW3-En8	Avoid impacts on flora, fauna, vegetation and highly sensitive areas throughout the project area by exploring alternative routes i.e. rail reserve, poorest quality vegetation.	DW3-1-P078, DW3-1-P075, DW3-2 T073, DW3-1-P071, DW3-2 D017, DW3-1-T034
DW3-En9	<p>Noise:</p> <ul style="list-style-type: none"> <li>Concerns over noise impacts to residents and fauna.</li> </ul>	DW3-1-T040, DW3-1-P070, DW3-1-T024, DW3-1-P092, DW3-2 T041, DW3-1-T011
DW3-En10	<p>Power lines:</p> <p>Concerns over the position of power lines on higher structures (bridges); incorporate power lines where possible. Use Western Power alignment.</p>	DW3-1-P049, DW3-1-P050, DW3-1-T024, DW3-1-P082, DW3-1-P075, DW3-1-P086
DW3-En11	<p>Lighting:</p> <ul style="list-style-type: none"> <li>Concerns over light spill from cars and street lights and management of lighting to avoid impacts on fauna.</li> </ul>	DW3-1-P049, DW3-1-P092, DW3-2 T177, DW3-2 P247, DW3-2 T124, DW3-2 T042, DW3-2 P106, DW3-2 P023, DW3-2 T015, DW3-2 T184, DW3-1-P069
DW3-En12	Concerns over how Acid Sulphate Soils will be managed.	DW3-1-P049

Issue No	Environmental Issue	Comment ID
DW3-En13	<p>Drainage sumps/stormwater/waste management:</p> <ul style="list-style-type: none"> <li>Ongoing commitment to waste management.</li> <li>Contaminant control to ensure runoffs from road do not infiltrate wetlands.</li> <li>Management to include bio-retention basins, CPTs, culvert stripping basins and gross-pollutant traps.</li> <li>Extend drainage basin along Hope Road for visual and recreational purposes.</li> <li>Concerns regarding over flooding of underpasses.</li> <li>Minimise clearing of vegetation for drainage sumps.</li> </ul>	DW3-1-P049, DW3-1-P050, DW3-1-P060, DW3-2 P191, DW3-2 T072, DW3-1-T043, DW3-2 T223, DW3-2 T153, DW3-2 P195, DW3-2 P192, DW3-1-T028, DW3-1-T005, DW3-1-T044, DW3-1-P048, DW3-1-P077, DW3-2 P036, DW3-2 T152, DW3-2 P196, DW3-1-T027, DW3-1-T041, DW3-2 P001
DW3-En14	<p>Fauna crossing:</p> <ul style="list-style-type: none"> <li>Concerns over fauna crossing.</li> <li>Develop fauna underpasses where bridges are not constructed.</li> <li>Fence in areas where there are no structures, to allow fauna crossing.</li> </ul>	DW3-1-P050, DW3-2 P113, DW3-2 T125, DW3-2 T230, DW3-2 D017, DW3-1-T037, DW3-2 P108, DW3-2 P104
DW3-En15	Maintenance of MRWA areas.	DW3-1-P050
DW3-En16	<p>Black Cockatoo:</p> <ul style="list-style-type: none"> <li>General concerns for the Black Cockatoo.</li> <li>New plantation of food stock and nesting trees (Marri/Banksia/Native Pines).</li> </ul>	DW3-1-P052, DW3-1-P055, DW3-1-P056, DW3-1-T024, DW3-2 T146, DW3-2 D017, DW3-1-T001, DW3-2 P274
DW3-En17	Any portion of the existing road reserve to be retained for conservation purposes and future batter to the freeway.	DW3-1-P055
DW3-En18	<p>Enhance lake areas:</p> <ul style="list-style-type: none"> <li>Connectivity between North Lake, Bibra Lake, Roe Swamp and Horse Paddock Swamp.</li> </ul>	DW3-1-P055, DW3-1-T024, DW3-1-P092, DW3-2 P024, DW3-1-P082, DW3-2 P188, DW3-2 P187, DW3-1-T041

Issue No	Environmental Issue	Comment ID
DW3-En19	Wetlands centre: <ul style="list-style-type: none"> <li>Concerns over accessibility.</li> <li>Relocate amenities if needed.</li> <li>Include Aboriginal Interpretative Centre.</li> <li>Invest funds to rejuvenate centre.</li> </ul>	DW3-1-P075, DW3-1-T003, DW3-1-T009, DW3-2 T055, DW3-2 P083
DW3-En20	Avoid Roe Highway Extension going through the wetlands.	DW3-1-P070
DW3-En21	Unused land in road reserve: <ul style="list-style-type: none"> <li>Manage excess road reserve for parks and recreation.</li> <li>Re-zone as conservation land and invest into Beeliar Wetlands Centre.</li> </ul>	DW3-1-T024, DW3-1-T034
DW3-En22	Minimise footprint.	DW3-1-T024, DW3-2 P111, DW3-2 T136, DW3-2 T072, DW3-2 T032
DW3-En23	Insect concerns: <ul style="list-style-type: none"> <li>Midgie/mosquito management.</li> </ul>	DW3-2 T255, DW3-2 P237, DW3-2 P202, DW3-2 T221, DW3-2 T179, DW3-2 T042, DW3-1-P082, DW3-2 P103, DW3-1-P069
DW3-En24	Vegetation studies: <ul style="list-style-type: none"> <li>Concerns that insufficient information was provided during workshops, relating to vegetation types and hydrology, in order to make an informed decision.</li> </ul>	DW3-1-T003, DW3-1-P089, DW3-2 T003, DW3-2 T007, DW3-1-P071

Issue No	Environmental Issue	Comment ID
DW3-En25	<p>Hope Road:</p> <ul style="list-style-type: none"> <li>Support the closure/cul-de-sac at the wetlands centre and the rehabilitation of Hope Road.</li> <li>Where possible, utilise Hope Road as construction footprint.</li> <li>The highway should be closely aligned with Hope Road.</li> <li>Downgrade and remove fences.</li> <li>Before Hope Road is eliminated, conduct an origin destination study.</li> <li>Concerns over anti-social behaviour following the closure of Hope Road.</li> <li>Provide parking at the termination of Hope Road for the wetlands centre.</li> <li>Include Principal Shared Path along Hope Road.</li> <li>Maintain connectivity (retain as local connecting road but do not connect to Roe Highway).</li> <li>Realign Hope Road further south of Bibra Drive, to connect to the old road reserve.</li> </ul>	DW3-1-P093, DW3-2 P062, DW3-2 P028, DW3-1-P082, DW3-1-P075, DW3-1-T003, DW3-1-P071, DW3-2 D015, DW3-1-P054, DW3-2 T069, DW3-O P007, DW3-1-T007, DW3-2 T085, DW3-2 T067, DW3-1-P085, DW3-1-T013, DW3-1-T011, DW3-1-T009, DW3-1-T041, DW3-1-P058, DW3-1-P066, DW3-2 P105, DW3-2 P116, DW3-2 P112, DW3-1-P068, DW3-1-P074, DW3-2 T132, DW3-2 P081, DW3-2 P083, DW3-2 P122, DW3-2 P117, DW3-1-P046
DW3-En26	<p>Pylons:</p> <ul style="list-style-type: none"> <li>Consider raising Roe Hwy on pylons to enable wetland conservation and wildlife corridors.</li> <li>Ensure pylons don't interfere with acid sulphate soil, fauna sites, potential nesting sites, significant flora.</li> <li>Protection of subsurface.</li> </ul>	DW3-1-P093, DW3-2 P029, DW3-2 P035, DW3-1-P082, DW3-2 T072, DW3-1-P071, DW3-2 P245, DW3-2 P070, DW3-2 T134, DW3-2 T050, DW3-2 P165, DW3-2 P169, DW3-1-P066, DW3-1-P069, DW3-1-P091
DW3-En27	Relocate flora and fauna prior to commencement of construction.	DW3-2 T252, DW3-2 P098
DW3-En28	<p>Barriers:</p> <ul style="list-style-type: none"> <li>Construct barriers throughout wetlands and other sensitive areas to ensure vehicle safety and reduce noise, bird strikes and light spill.</li> <li>Use vegetation along barriers instead of art to discourage graffiti.</li> </ul>	DW3-2 P272, DW3-1-P060, DW3-1-P082, DW3-1-P056, DW3-2 T060, DW3-2 T088, DW3-2 P248, DW3-2 T072, DW3-1-P054, DW3-1-T011, DW3-1-T034, DW3-2 P274

Issue No	Environmental Issue	Comment ID
DW3-En29	Noise walls: <ul style="list-style-type: none"> <li>Construct noise walls against residential homes/property boundaries.</li> </ul>	DW3-1-P060
DW3-En30	Emergency planning: <ul style="list-style-type: none"> <li>Traffic crashes, crash barriers, oil spills and chemical incidents. Fire brigade wash down roads and use peat sorbs.</li> <li>Ensure emergency response plans are in place to combat hazards onto wetlands.</li> </ul>	DW3-1-P082, DW3-1-T028, DW3-1-P047, DW3-1-P069
DW3-En31	Relocate Norfolk Pines.	DW3-2 T094
DW3-En32	Avoid heritage listed.	DW3-2 P119
DW3-En33	Complaints of residents along Leach Highway and South Street regarding traffic and noise - this is not an adequate justification for destroying a conservation reserve of regional and wetland significance.	DW3-1-P071
DW3-En34	Native ARC: <ul style="list-style-type: none"> <li>Concerns over accessibility.</li> <li>Relocate if necessary (e.g. to Bibra Drive).</li> <li>Invest funds to rejuvenate centre.</li> </ul>	DW3-1-T013, DW3-1-P075, DW3-2 P119
DW3-En35	Bridge structures: <ul style="list-style-type: none"> <li>Concerns over 'Shading' impacts underneath bridge structures.</li> </ul>	DW3-1-T011, DW3-2 T090
DW3-En36	DEC management plan: <ul style="list-style-type: none"> <li>'Protect the Values'.</li> </ul>	DW3-1-T011
DW3-En37	Relocate Hope Road south and reconnect to Roe Swamp.	DW3-1-T009
DW3-En38	Noise barrier between North Lake and highway.	DW3-1-P066

Issue No	Environmental Issue	Comment ID
DW3-En39	Liaise with FESA: <ul style="list-style-type: none"> <li>• Response planning to reduce impact from clearing.</li> <li>• Accessibility if narrow median/bridge.</li> </ul>	DW3-1-P069

Issue No	Function Issue	Comment ID
DW3-Fn1	<p>Speed limit:</p> <ul style="list-style-type: none"> <li>Reduce speed limit on Bibra Drive to 40kmp/h or 50kmp/h to manage increased traffic.</li> <li>Use rumble strips to slow down traffic, especially near Parkway Road.</li> </ul>	DW3-2 T228, DW3-2 T056, DW3-2 P063, DW3-2 P119
DW3-Fn2	<p>Connectivity:</p> <ul style="list-style-type: none"> <li>Maintain connectivity between residential areas and existing routes.</li> </ul>	DW3-1-P060, DW3-2 T008, DW3-2 P232, DW3-1-P069, DW3-1-P074, DW3-2 T265, DW3-1-T027
DW3-Fn3	<p>Number of highway lanes:</p> <ul style="list-style-type: none"> <li>Build a six-lane highway now instead of four lanes. Building four lanes and then extending to six at a later date will cause more environmental problems in the future and devastate the area a second time after revegetation has occurred.</li> </ul>	DW3-1-P090, DW3-1-P087, DW3-1-T002, DW3-1-P075, DW3-2 T091, DW3-2 E021, DW3-2 P038, DW3-2 P120, DW3-2 T158, DW3-2 T216, DW3-1-P088, DW3-1-T037, DW3-1-T041, DW3-1-P047, DW3-1-P058, DW3-1-P066, DW3-1-P074, DW3-2 E022
DW3-Fn4	Consider a four lane highway with light rail corridor for future development.	DW3-1-P058, DW3-1-P072,
DW3-Fn5	<p>Progress Drive and Bibra Drive access:</p> <ul style="list-style-type: none"> <li>No access ramps at Progress Drive and Bibra Drive.</li> <li>Keep as local road.</li> <li>Reduce lighting.</li> <li>Consider tunnel between Bibra Drive and Progress Drive.</li> <li>Noise concerns to local residents.</li> </ul>	DW3-O P007, DW3-2 P071, DW3-2 P243, DW3-2 P080, DW3-2 T052, DW3-O P007, DW3-2 P071, DW3-2 P199, DW3-2 T185, DW3-1-T008, DW3-1-T037, DW3-1-T041, DW3-1-P058, DW3-1-P072, DW3-2 P031, DW3-1-P074
DW3-Fn6	<p>Design:</p> <ul style="list-style-type: none"> <li>Overall satisfaction with the design concept.</li> </ul>	DW3-O P003, DW3-2 P201, DW3-2 P026, DW3-2 P115, DW3-2 T092, DW3-1-T010, DW3-2 T047



Issue No	Function Issue	Comment ID
DW3-Fn7	<p>Progress Drive:</p> <ul style="list-style-type: none"> <li>• Leave 'as is', keep open and underneath Roe Highway.</li> <li>• Noise wall is needed further eastwards of Progress Drive to avoid light spillage and noise impacts.</li> <li>• Overall satisfaction for the road to close as long as access remains along Progress Drive underneath Roe for cyclists and walkers.</li> <li>• Improve overall accessibility of Progress Drive to other areas.</li> </ul>	DW3-1-T002, DW3-1-T024, DW3-2 T059, DW3-2 P242, DW3-2 T150, DW3-2 P244, DW3-2 P107, DW3-1-P066, DW3-1-P091, DW3-1-P068, DW3-2 P065, DW3-2 T068, DW3-2 P034, DW3-2 T046, DW3-1-T084, DW3-2 P082, DW3-2 P200
DW3-Fn8	<p>Minimise footprint:</p> <ul style="list-style-type: none"> <li>• No bridges/arches around sensitive areas.</li> <li>• Minimise batters.</li> <li>• Consider minimum width medium to reduce footprint.</li> </ul>	DW3-1-T002, DW3-1-P050, DW3-2 T136, DW3-2 P109
DW3-Fn9	<p>Principal Shared Path/walk trails:</p> <ul style="list-style-type: none"> <li>• Maintain linkage and connectivity to existing paths, lakes and recreational areas, improve pathways where possible.</li> <li>• Create shared paths on both side of highway.</li> <li>• Safety concerns; ensure pathways are open to discourage anti-social behaviour.</li> <li>• Promotion of etiquette and courtesy on pathways.</li> <li>• Include history/educational signs about wildlife, Indigenous heritage and links to wetland centre.</li> <li>• Separate recreational path from 'commuter' path.</li> <li>• Boardwalks.</li> </ul>	DW3-1-P060, DW3-2 P096, DW3-1-T042, DW3-2 T262, DW3-2 T271, DW3-1-T043, DW3-2 T264, DW3-2 P161, DW3-2 P121, DW3-2 T261, DW3-1-P079, DW3-1-P051, DW3-2 T157, DW3-2 T040, DW3-1-T027, DW3-2 D007, DW3-O P003, DW3-1-T041, DW3-1-P058, DW3-1-P049, DW3-1-P072, DW3-1-P069, DW3-1-P091, DW3-1-D001, DW3-2 P001, DW3-2 P017, DW3-2 T054, DW3-2 T086, DW3-2 T087, DW3-O P003
DW3-Fn10	Solar panels	DW3-2 T078
DW3-Fn11	<p>North Lake Road Interchange:</p> <ul style="list-style-type: none"> <li>• Move Roe Highway south; away from houses.</li> <li>• Increase buffer zone.</li> </ul>	DW3-1-T004

Issue No	Function Issue	Comment ID
DW3-Fn12	Enclosed road/tunnels: <ul style="list-style-type: none"> <li>Where possible, maximise enclosed roads and tunnels to reduce noise/light/pollution.</li> </ul>	DW3-1-T042, DW3-2 T141, DW3-2 T145, DW3-2 T077, DW3-2 T061, DW3-2 T093, DW3-2 T154
DW3-Fn13	Enclosed road/tunnels: <ul style="list-style-type: none"> <li>Where possible, limit enclosed roads and tunnels to discourage graffiti and crime.</li> </ul>	DW3-2 P245
DW3-Fn14	Noise mitigation/walls: <ul style="list-style-type: none"> <li>Look to other cities for ideas and examples on how to make noise walls visually appealing.</li> <li>See-through noise walls to limit the obstruction of views.</li> <li>Construct noise walls in sensitive areas.</li> </ul>	DW3-1-P045, DW3-2 T012, DW3-2 P022, DW3-2 P101, DW3-2 P163, DW3-2 P170, DW3-2 P246, DW3-2 T133
DW3-Fn15	Emergency lanes: <ul style="list-style-type: none"> <li>No breakdown lanes on lake sections.</li> </ul>	DW3-1-T007
DW3-Fn16	Road materials: <ul style="list-style-type: none"> <li>Porous concrete.</li> <li>Use materials to minimise road noise.</li> </ul>	DW3-2 T009, DW3-2 T074, DW3-2 T130
DW3-Fn17	Lighting: <ul style="list-style-type: none"> <li>Concerns over lighting impacts to residents in the area and other cars.</li> <li>Ensure headlights from other cars are not a distraction.</li> <li>Use innovation; lane/LED markers over street lights where possible.</li> </ul>	DW3-2 P026, DW3-2 T263, DW3-2 P205, DW3-1-T041, DW3-2 T049, DW3-2 T180, DW3-2 T182
DW3-Fn18	Fog: <ul style="list-style-type: none"> <li>Concerns over fog management.</li> </ul>	DW3-2 T016
DW3-Fn19	Farrington Road: <ul style="list-style-type: none"> <li>Utilise footprint.</li> </ul>	DW3-2 P162
DW3-Fn20	Accessibility to Adventure World.	DW3-2 P114

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AECOM Australia Pty Ltd  
ABN 20 093 846 925



Issue No	Function Issue	Comment ID
DW3-Fn21	Build underpasses in areas where water collects on footpaths for pedestrians.	DW3-1-T028
DW3-Fn22	Powerlines: <ul style="list-style-type: none"> <li>Concerns that raising the highway can be impacted by the high voltage power lines.</li> <li>Bury powerlines or include in a hollow bridge/underneath bridge.</li> <li>Group with road and rehabilitate area.</li> <li>Utilise Western Power route/power line reserve to minimise impact on wetlands.</li> <li>Concerns regarding the appearance of the powerlines/tubes.</li> <li>Consider locating in the middle of Roe 8.</li> </ul>	DW3-1-T044, DW3-2 T144, DW3-1-P088, DW3-2 T143, DW3-2 D006, DW3-1-P057, DW3-1-T037, DW3-2 T079, DW3-2 P004, DW3-1-P069, DW3-2 P197, DW3-2 P234, DW3-2 T132, DW3-2 T131, DW3-1-P066
DW3-Fn23	Height: <ul style="list-style-type: none"> <li>Keep as low as possible.</li> </ul>	DW3-2 P168, DW3-O P003, DW3-1-T010, DW3-1-T037
DW3-Fn24	Connection to North Lake Road and Roe Highway is not necessary. Stock Road is adequate.	DW3-1-P058
DW3-Fn25	Bibra Drive and North Lake Road Intersection: <ul style="list-style-type: none"> <li>Concerns over the safety and accessibility of this intersection, especially in peak hour traffic.</li> <li>Realign intersection further away from railway line to allow intersection to cope with increase traffic flow.</li> </ul>	DW3-2 T030, DW3-2 P204, DW3-2 T229, DW3-2 T156
DW3-Fn26	Why can't we use Hope Road?	DW3-1-T026
DW3-Fn27	Retain surface water flows.	DW3-O P003
DW3-Fn28	Culverts: <ul style="list-style-type: none"> <li>Utilise culverts over wetlands to allow water, pedestrian and fauna crossing.</li> </ul>	DW3-O P003, DW3-1-P066, DW3-1-P068, DW3-1-P074, DW3-2 P206, DW3-2 P064
DW3-Fn29	Make feature cut of East Drainage Sump.	DW3-O P003

Issue No	Function Issue	Comment ID
DW3-Fn30	Multi level bridge across wetlands to minimise footprint: <ul style="list-style-type: none"> <li>One carriageway per level.</li> <li>Allow for light rail, public transport corridor.</li> </ul>	DW3-1-T008, DW3-1-T041, DW3-2 T076, DW3-2 T077
DW3-Fn31	North Lake Road Diamond Interchange: <ul style="list-style-type: none"> <li>Close ramps up to and next to main carriageways to lessen footprint and reduce noise impacts.</li> </ul>	DW3-1-T008
DW3-Fn32	Series of three 10 metre arches at three locations to provide hydraulic, flora and fauna connectivity: <ol style="list-style-type: none"> <li>1) Roe Swamp</li> <li>2) Farrington Road</li> <li>3) Hope Road termination</li> </ol>	DW3-1-T036
DW3-Fn33	North Lake Road: <ul style="list-style-type: none"> <li>Intersection - problems concerning access to the highway from intersection.</li> <li>Concerns regarding traffic changes.</li> <li>On/off ramps from North Lake Road to Roe Highway. Concerns over size of on/off ramps - ensure these are not too big. Consider a single point interchange to minimise footprint.</li> <li>On/off free flow traffic or bottleneck?</li> <li>North Lake Road connection to Roe Highway is desirable as it is access from Cordelia Avenue onto North Lake Road.</li> </ul>	DW3-1-T041, DW3-1-P072, DW3-1-P073, DW3-2 P235, DW3-1-P068, DW3-2 P005, DW3-2 T218, DW3-2 T155, DW3-2 T151
DW3-Fn34	How does this highway improve access to the Murdoch Activity Centre?	DW3-1-T041
DW3-Fn35	How does this highway reduce traffic flow on Leach Highway (particularly between Stock Road and Stirling Highway)?	DW3-1-T041

Issue No	Function Issue	Comment ID
DW3-Fn36	The proposed 'Northern Road', connecting the highway to North Lake Road, can be moved further south. This method will ensure there is minimum impact upon the vegetation and will also decrease road noise.	DW3-1-T035
DW3-Fn37	Consider 2 x 30m spare over critical wetlands area to minimise footprint.	DW3-1-P047
DW3-Fn38	North Lake area: <ul style="list-style-type: none"> <li>Existing limestone tracks retained.</li> </ul>	DW3-1-P066
DW3-Fn39	Bibra Lake: <ul style="list-style-type: none"> <li>Maintain bitumen road around lake.</li> </ul>	DW3-1-P066
DW3-Fn40	Bridge maintenance: <ul style="list-style-type: none"> <li>Guttering from bridge.</li> </ul>	DW3-1-P069
DW3-Fn41	Locate road further south and utilise area along railway line and industrial estate.	DW3-1-P074
DW3-Fn42	Bibra Drive: <ul style="list-style-type: none"> <li>General concerns over access from Bibra Drive to Roe Highway.</li> <li>General impact concerns regarding widening Bibra Lake to four lanes.</li> <li>Provide east to west access to Roe Highway.</li> <li>Concerns over safety and accessibility of the roundabout at Bibra Lake and Parkway Road.</li> <li>Road between Bibra Drive and Baker Court.</li> <li>Concerns over Hope Road and Bibra Drive junction.</li> </ul>	DW3-2 P027, DW3-2 P033, DW3-2 T051, DW3-2 T053, DW3-2 T084, DW3-2 P119, DW3-2 T149, DW3-2 T227, DW3-2 E024, DW3-2 P241, DW3-2 T219, DW3-2 P066, DW3-2 P236, DW3-2 T220
DW3-Fn43	Build lower nature arches.	DW3-2 T013
DW3-Fn44	Realign Roe Highway further north where possible: <ul style="list-style-type: none"> <li>Decrease radius.</li> <li>Decrease speed.</li> </ul>	DW3-2 P273, DW3-2 P274, DW3-2 T127, DW3-2 T129, DW3-2 T142
DW3-Fn45	Bottleneck potential concerns.	DW3-1-T084

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Issue No	Function Issue	Comment ID
DW3-Fn46	Connection onto South Lake Drive across railway line (reinstate).	DW3-2 T226
DW3-Fn47	Provide an all access option (north - south) - as high as possible.	DW3-2 P164

Issue No	Process Issue	Comment ID
DW3-P1	Dissatisfaction with the number of attendees.	DW3-1-T009
DW3-P2	Dissatisfaction with the consultation process: <ul style="list-style-type: none"> <li>The money spent on the project could have been invested on other valid community projects instead of "spin" merchants.</li> </ul>	DW3-O P004
DW3-P3	Dissatisfaction with the decision to build the highway and its impacts on the environment and community. The design process is fundamentally flawed by assuming the project could be made environmentally acceptable.	DW3-1-P071, DW3-O P008, DW3-1-P092
DW3-P4	Concerns over the lack of lateral thinking for approaching this project.	DW3-2 P002
DW3-P5	Workshop information: <ul style="list-style-type: none"> <li>The information and expert presentations were found to be very valuable and provide a far greater insight into the possibilities.</li> </ul>	DW3-1-P070
DW3-P6	Workshop information: <ul style="list-style-type: none"> <li>Insufficient information - expert presentations were presented in order to make an informed decision.</li> </ul>	DW3-1-D009
DW3-P7	No depiction of interchange proposed from Design Workshop 2 to assist decision making at Design Workshop 3.	DW3-2 P001

Issue No	Social Issue	Comment ID
DW3-S1	Noise and pollution impacts: <ul style="list-style-type: none"> <li>Move the alignment further south to avoid noise impacts on residents in the area.</li> <li>Concerns over lifestyle/recreational areas becoming impacted from increased noise and pollution.</li> </ul>	DW3-1-T001, DW3-1-T010, DW3-2 T044, DW3-2 P159, DW3-2 T043, DW3-1-P064, DW3-1-P054
DW3-S2	Recreational facilities: <ul style="list-style-type: none"> <li>Consider paths/trails, bike racks, fitness circuits, public toilets, drink fountains.</li> </ul>	DW3-2 T269, DW3-2 T268, DW3-2 T267, DW3-2 P021, DW3-O P007, DW3-1-P079, DW3-1-D001
DW3-S3	Art work: <ul style="list-style-type: none"> <li>Encourage art work to beautify the area (murals).</li> <li>Hold competitions to find local artists.</li> </ul>	DW3-2 D015, DW3-1-T042, DW3-2 P070
DW3-S4	General concerns over lifestyle impacts: <ul style="list-style-type: none"> <li>Residential homes.</li> <li>Schools.</li> <li>Safety.</li> </ul>	DW3-1-P063, DW3-1-T027
DW3-S5	Visual attribute of Roe 7: <ul style="list-style-type: none"> <li>No lighting art work.</li> <li>No yellow poles.</li> </ul>	DW3-2 T186, DW3-2 T147
DW3-S6	Military heritage: <ul style="list-style-type: none"> <li>Recognition of camps sites of AWAS soldiers.</li> <li>Old WW2 gun emplacement near North Lake. Where is this?</li> </ul>	DW3-2 D015, DW3-2 T140
DW3-S7	Viewing attributes: <ul style="list-style-type: none"> <li>Elevate road to enjoy view while driving.</li> </ul>	DW3-2 P166
DW3-S8	Concerns regarding Steiner School.	DW3-1-P069

Issue No	Social Issue	Comment ID
DW3-S9	Encourage sense of community: <ul style="list-style-type: none"> <li>Ensure that areas between Roe Highway Extension do not become unsociable areas that encourage unwelcomed behaviour. E.g. young people/homeless people loitering under culverts and bridges.</li> </ul>	DW3-1-P074, DW3-1-T043

Issue No	Construction Issue	Comment ID
DW3-C1	Construction footprint: <ul style="list-style-type: none"> <li>Footprint to be minimised as much as possible.</li> <li>Use innovative construction techniques.</li> <li>Use existing paths.</li> </ul>	DW3-2 P160, DW3-1-T007, DW3-2 T057, DW3-1-T008
DW3-C2	Connectivity: <ul style="list-style-type: none"> <li>Concerns over losing connectivity to commonly used routes during construction (e.g. Hope Road, North Lake Road and Bibra Drive).</li> </ul>	DW3-2 T224, DW3-2 P239
DW3-C3	Principal Shared Path: <ul style="list-style-type: none"> <li>Ensure that existing routes can still be used during construction.</li> </ul>	DW3-2 T266
DW3-C4	Dust levels: <ul style="list-style-type: none"> <li>Concerns over increased dust levels during construction.</li> </ul>	DW3-2 P240
DW3-C5	Construction noise.	DW3-1-P069



Issue No	Oppose	Comment ID
DW3-Op1	<p>No Roe 8:</p> <ul style="list-style-type: none"> <li>• Spend money on more important things like preserving the environment, not destroying the home of animals.</li> <li>• Dissatisfied that a 'No Roe' option does not exist.</li> <li>• Concerns regarding noise and traffic disturbing the peace and tranquillity of the area.</li> <li>• Fail to see the benefits of extending the highway.</li> <li>• The planning and construction of Roe 8 is premature. Concerns regarding the government's relentless push to construct this highway through a precious and sensitive wetland complex.</li> </ul>	DW3-1-P062, DW3-1-P065, DW3-1-P070, DW3-1-P096, DW3-2 P001, DW3-2 P006, DW3-2 P097, DW3-2 P167, DW3-2 P207, DW3-2 P233, DW3-2 P208, DW3-O P008

Issue No	Support	Comment ID
DW3-Su1	<p>Yes to Roe 8:</p> <ul style="list-style-type: none"> <li>• Need Roe to overcome Leach Highway/High Road congestion, pollution and traffic impact in all its facets. There has to be a balance between built and natural environments.</li> <li>• Perth is a growing city. Overall support for the extension as it benefits the state as a whole.</li> </ul>	DW3-1-P061, DW3-O P006, DW3-1-P088, DW3-2 P028

