

MINUTES OF MEETING – Construction Reference Group (CRG)  
Murdoch Drive Connection  
Meeting #7



<b>Date:</b>	Wednesday 5 December 2018	<b>Time:</b>	18:00-20:00	<b>Location:</b>	Metropolitan Road Improvement Alliance
<b>Distribution:</b>	All CRG members and meeting visitors				

<b>Attendees:</b>	Samantha	Murdoch Chase resident
	Dana Checksfield (proxy)	Cockburn Community Wildlife Corridor Inc – Committee member
	Felicity Bairstow	Cockburn Community Wildlife Corridor Inc – Committee member
	Charles Sullivan	City of Cockburn
	Jorelle Little	CRG Executive Officer
	Linton Pike	CRG Chairperson
<b>Visitors:</b>	John Robertson	Project Manager, MRIA/Main Roads WA
	Glenn Parnham	Design, MRIA
	Nelson Serrao	Construction Manager, MRIA
	Lindsay Broadhurst	Director Road Planning, Main Roads (guest presenter)
<b>Apologies:</b>	Kimberley Broztl	Manager Engineering, City of Melville
	Dr Jonathan Tan	Bateman resident, local General Practitioner
	Decima	Bibra Lake resident
	Kim Sadlier	Success Residents Group
	Cam	Ardross Resident
	Mark Ashby	Principal, Kennedy Baptist Collage
	Chris White	Executive member, Transport Infrastructure Council of Western Australia
	Dr Maree Matthews	Principal, Bluegum Montessori School

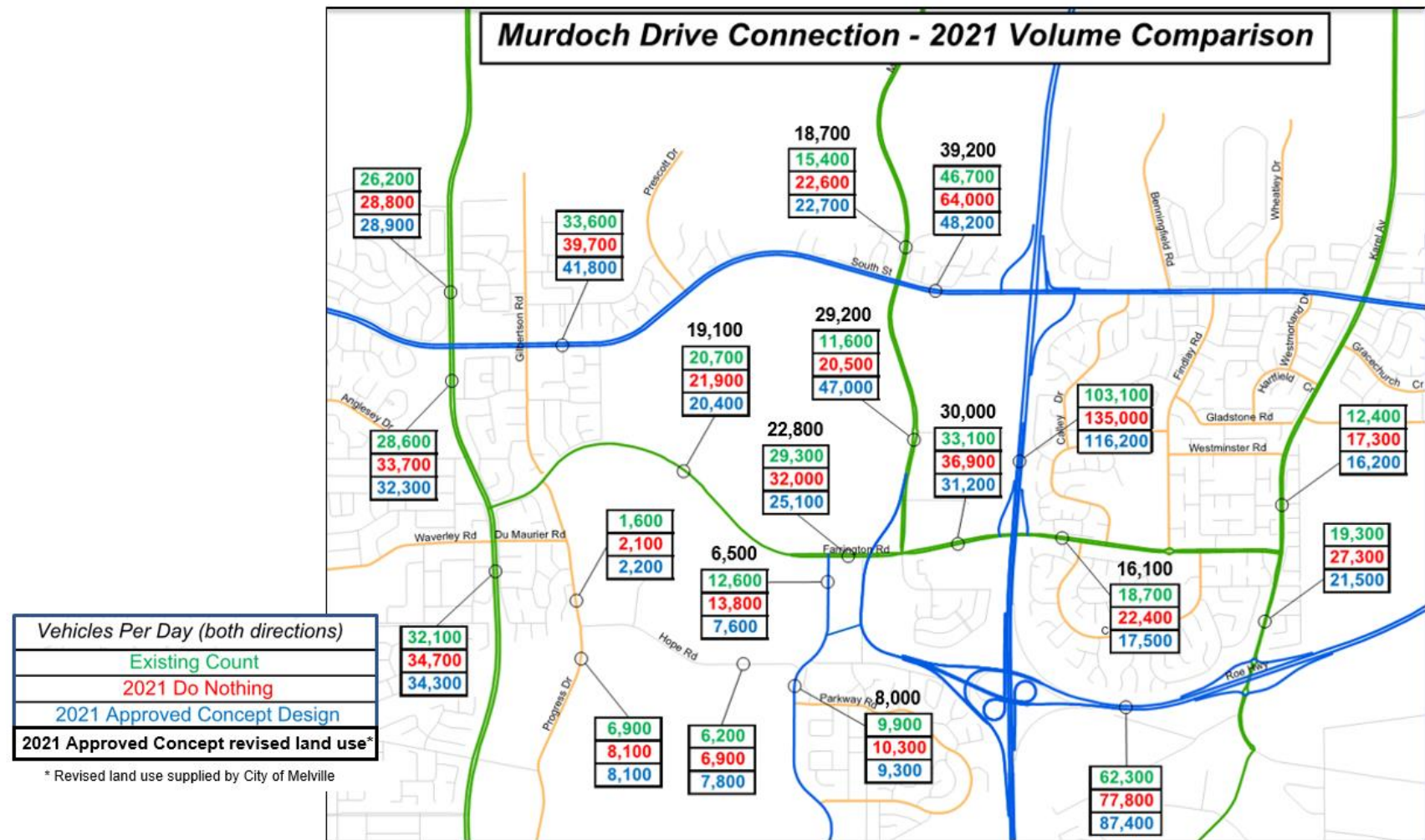
	Joe Branco	North Lake Resident, approved representative of local indigenous families
	Cr Philip Eva	Elected member, City of Cockburn
	Yaz Mubarakai	MLA, Member for Jandakot
	Cr Nicole Robins	Elected member, City of Melville
	Thorsten	Cockburn Community Wildlife Corridor
	John	Murdoch Chase resident
	Jillian	Murdoch Chase resident
	John	Bibra Lake resident
	Kevin	Bibra Lake resident
	Phil	Bateman Resident
	Matthew Young	Murdoch University
	Mick McCarthy	City of Melville
	Terry Pearce	Project Director, MRIA/Main Roads WA
<b>Resigned from CRG:</b>	James	Booragoon resident
	Anonymous	Leeming resident

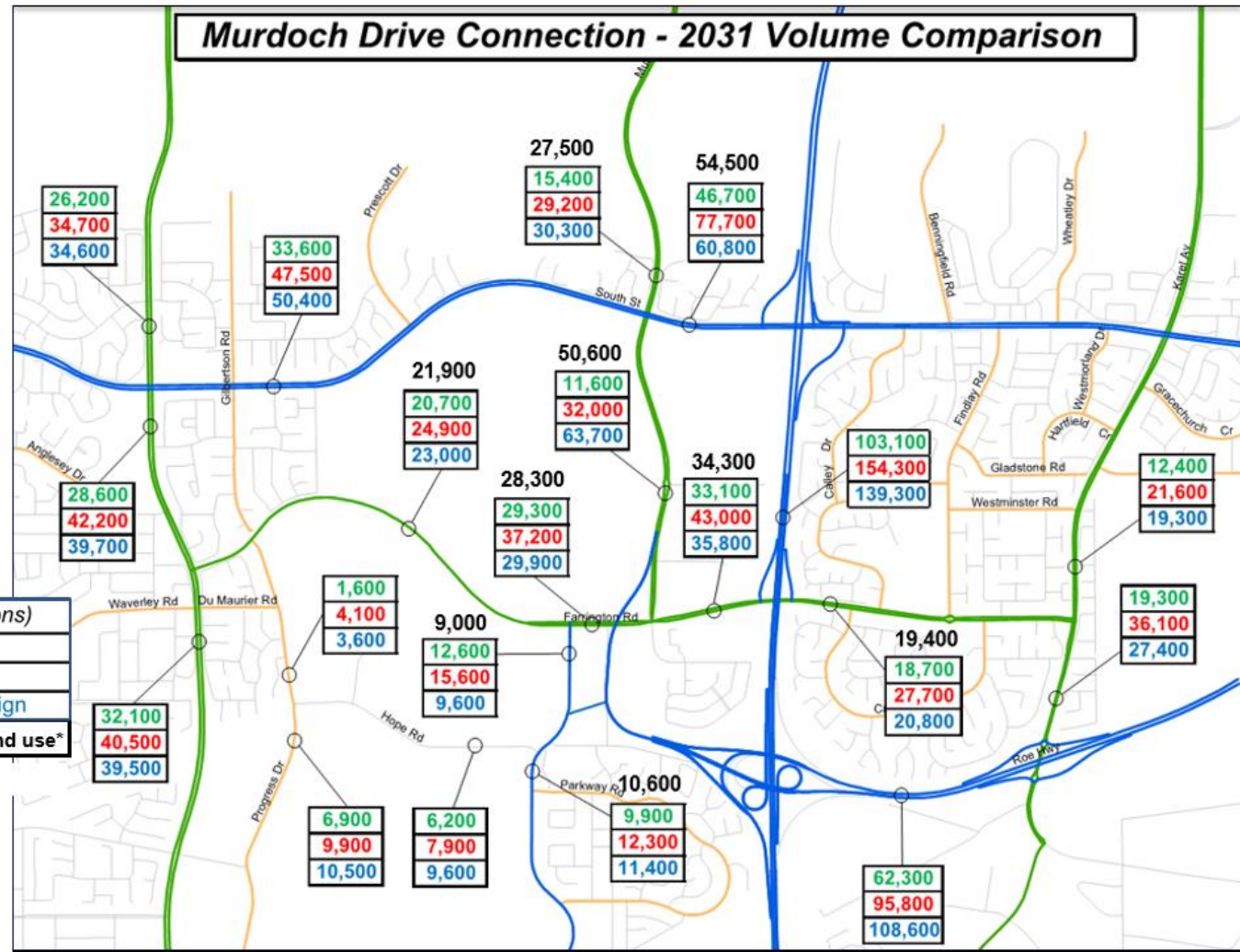
*Note: residents are listed first name only and residential location, representatives of organisations are listed in full*

NO.	ITEM / DETAILS	
1	<b>PREVIOUS MINUTES AND ACTIONS ARISING</b>	
	<p>Comment was invited on the previous minutes to identify proposed changes or omissions:</p> <ul style="list-style-type: none"> <li>No changes were requested by CRG members.</li> </ul> <p>Actions arising from previous meeting were discussed as follows:</p>	
	<b>ACTIONS ARISING FROM APRIL 2018 MEETING</b>	<b>FOLLOW UP REPORTED AT THIS MEETING</b>
	<p><b>“On boundary” and “off boundary” noise wall treatments differ in impact with the “off boundary”</b> option has less environmental, property and construction impacts associated with the off-boundary location. We value the opinions of directly affected residents and will be discussing with individual property owners.</p> <p>Jorelle to liaise with Leeming resident (anonymous) to arrange a follow up meeting to discuss the recommended option and consultation approach.</p> <p style="text-align: right;"><b>ACTION: Jorelle</b></p>	<p>This will be addressed in the presentation to be made at this meeting.</p>
	<p>If anyone wishes to have their names removed from previous minutes please let Jorelle know. Leeming resident (anonymous) asked to have name excluded. The agreed protocol is to provide first name only and area, unless members specifically ask to be anonymous. Groups or organisations to have both names</p> <p style="text-align: right;"><b>ACTION: Jorelle</b></p>	<p>This has now been actioned for Meeting Minutes. The Meeting Agenda still contains full names as it is not published on webpage.</p>
	<p>Local road traffic modelling was used as the basis for noise modelling. John Robertson to seek clarification from Road Planning (Main Roads) on the updated ROM model.</p> <p style="text-align: right;"><b>ACTION: John</b></p>	<p>Guest presenter (Lindsay Broadhurst) here tonight to address this.</p>
	<p>It is difficult to work with every community group but Jorelle will work with Christine to develop a suitable response to the request to attend the Bibra Lake Resident Association meeting</p> <p style="text-align: right;"><b>ACTION: Jorelle</b></p>	<p>Nelson Serrao and Jorelle Little attended the last BLRA meeting and provided an update</p>
2	<b>GUEST PRESENTER – TRAFFIC MODELLING – LINDSAY BROADHURST</b>	
	<p>Lindsay Broadhurst, Director of Road Planning for Main Roads WA explained that:</p> <ul style="list-style-type: none"> <li>Previous modelling <ul style="list-style-type: none"> <li>Land use assumptions from 2013/14</li> <li>Sourced from local government and major structure plans</li> <li>Used for surrounding major projects: Armadale Rd upgrades, Kwinana Fwy NB widening</li> </ul> </li> <li>Concerns raised about high projected volumes on Murdoch Dr</li> <li>Requested further ROM modelling using revised land use for MAC area</li> </ul>	

**NO. ITEM / DETAILS**

- Updated land use for MAC area provided by CoM
- Much slower rate of employment growth in MAC that previous forecasts
- Results in lower volumes on Murdoch Dr
- Original Project modelling still valid – original traffic projections will occur later with employment growth in MAC area





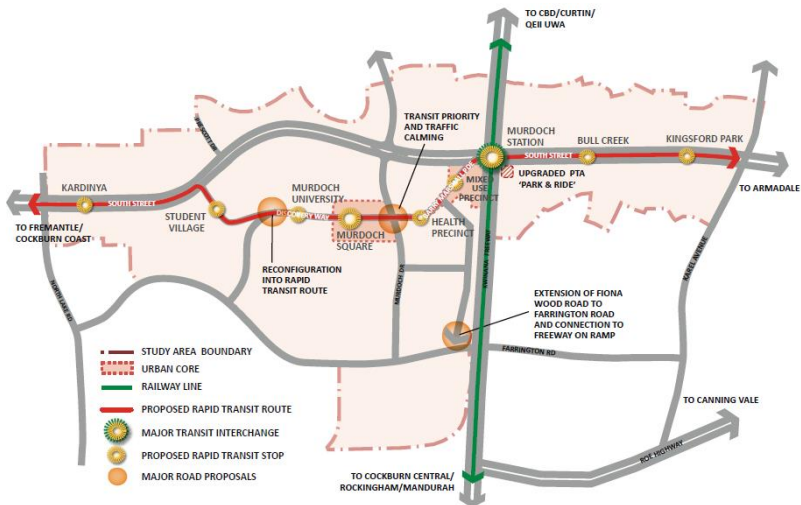
Vehicles Per Day (both directions)		
Existing Count	2031 Do Nothing	2031 Approved Concept Design
2031 Approved Concept revised land use*		

\* Revised land use supplied by City of Melville

**NO. ITEM / DETAILS**

**Other planned road connections to MAC area**

- New connection to Farrington Road proposed via southern extension of Fiona Wood Drive
- Will be a local road (City of Melville)
- Will relieve traffic volumes on Murdoch Drive



**3 QUESTIONS AND ANSWERS**

Q	Does the traffic modelling reflect available parking and visitor levels at major facilities like Fiona Stanley or Murdoch University?
A	Yes, it reflects the existing and planned future land uses and reflects the assumed share that each mode of transport will take eg car, bus, truck, train, etc.
Q	What will happen on Farrington Road over time as residential development proceeds?
A	The modelling shows that all forecast future traffic volumes can be managed using existing and planned future infrastructure. There will still be congestion at peak times in the long term.
Q	It is still difficult to get onto Farrington Road from Murdoch Chase. Will that change?
A	Traffic volumes and movement patterns will settle over time particularly once construction is complete.
Q	Could traffic calming be included on Farrington Road?
A	The inclusion of traffic calming on Farrington Road is not proposed as part of these works. Ongoing management of Farrington Road and the potential future inclusion of traffic calming is a matter for the City of Cockburn to consider.
Q	Bibra Drive is already a rat run for traffic yet the forecasts show the numbers dropping over time. How is that possible?
A	The numbers are not absolute and only indicate likely future trends. Bibra Drive is a lower order road link and we expect numbers to drop over time as other routes become easier and more appealing. When the project is complete, we will review the actual traffic numbers and conduct traffic counts.
Q	What other options exist to provide future relief to the local network?

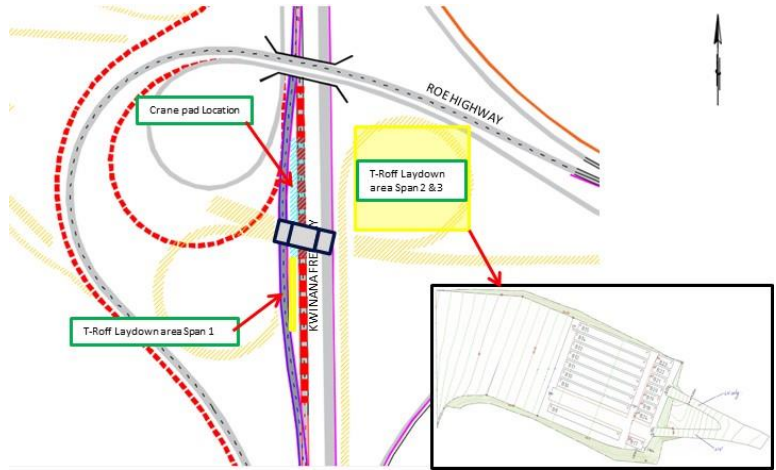
NO.	ITEM / DETAILS
A	Fiona Wood Drive will be built in the longer term and take some load off Murdoch Drive and Farrington Road.
Q	City of Cockburn has done their own traffic study and will also do traffic counts in a year or so. Bibra Drive, Hope Road and other forecast decreases will be checked against subsequent CoC traffic counts.
A	Noted.
Q	Fiona Wood Drive and other growth would impact upon Farrington Road traffic in the future.
A	Agreed. However, project case is still a better option than the current do nothing option which has higher traffic volumes..
Q	When will Fiona Wood Drive be built?
A	<b>We don't have a</b> date in mind and it would subject to growth trends. It is likely to be between 2021 and 2031 when some form of relief will be needed for Murdoch Drive.
Q	Will Murdoch Drive become a rat run from Murdoch to Roe Highway?
A	Select Link Modelling showed little traffic use Murdoch to access South St and other rat run destinations serviced by other available routes not offering an attractive alternative. The purpose of Murdoch Drive is to provide ready access in both directions to and from Murdoch without taking it all to South Street.
<b>4</b>	<b>CONSTRUCTION UPDATE – NELSON SERRAO</b>
	<p>Nelson Serrao provided a construction update using four aerial photographs taken using a drone. A time lapse video was also shown to help understand the bridge construction process underway over Kwinana Freeway including the beam lift strategy.</p> <p>Nelson explained that:</p>

**NO. ITEM / DETAILS**

Enabling works will help prepare for the beam installation process as shown.

REALIGNMENT OF KWINANA FREEWAY NORTH BOUND TO CONSTRUCT TEMPORARY CRANE PAD FOR BRIDGE BEAM LIFT FOR SPANS 1 & 2

- LEGEND**
- EXISTING ROAD
  - CLOSED ROAD / PSP
  - EXISTING PAVEMENT MARKINGS
  - REDUNDANT PAVEMENT MARKINGS
  - NEW TEMPORARY PAVEMENT MARKINGS
  - WORK SITE
  - TEMPORARY ROAD SAFETY BARRIER
  - TEMPORARY PSP ALTERNATE ROUTE
  - TEMPORARY PSP ALTERNATE ROUTE

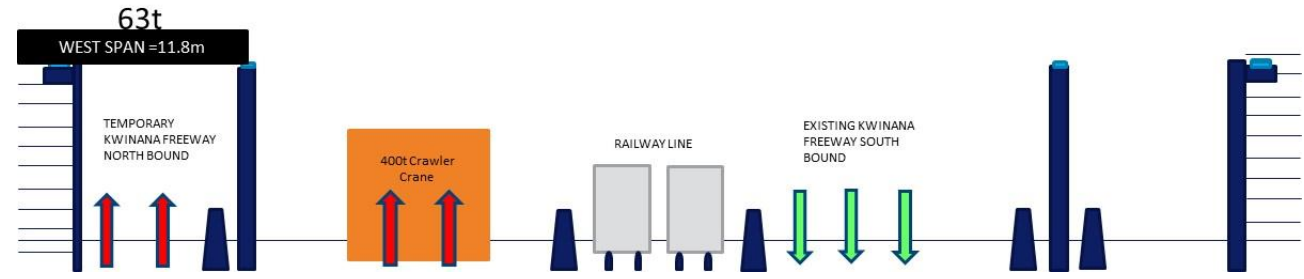


## BRIDGE BEAM LIFT STRATEGY - WESTERN SPAN (SPAN 1)

LIFT 2 BEAMS PER NIGHT (4 Nights)  
 5<sup>th</sup> NIGHT AS CONTINGENCY

KWINANA FREEWAY NORTH BOUND  
 LANE CLOSURE 10PM – 4AM

LEGEND: Open to Traffic (Green)  
 Closed to Traffic (Red)



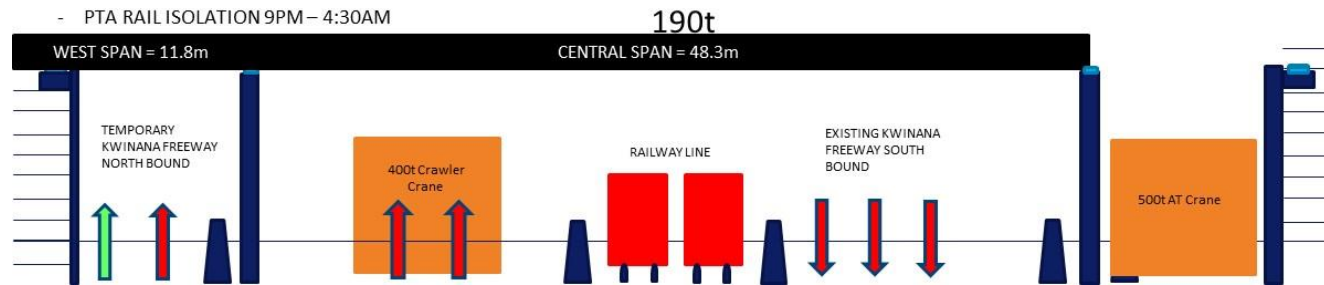


## BRIDGE BEAM LIFT STRATEGY - CENTRAL SPAN (SPAN 2)

LIFT 2 BEAMS PER NIGHT (4 Nights)  
5<sup>th</sup> NIGHT AS CONTINGENCY

- KWINANA FREEWAY SOUTH BOUND CLOSURE 10PM – 4AM
- KWINANA FREEWAY NORTH BOUND LANE CLOSURE 10PM – 4AM
- PTA RAIL ISOLATION 9PM – 4:30AM

LEGEND: Open to Traffic █  
Closed to Traffic █

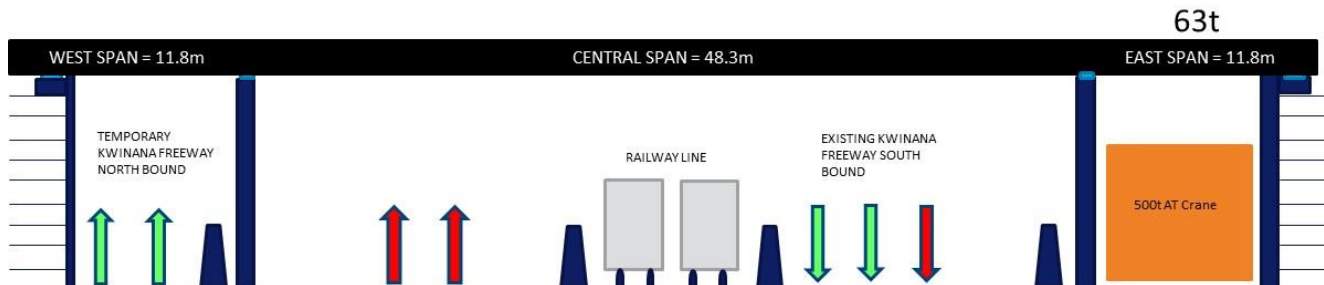


## BRIDGE BEAM LIFT STRATEGY - EASTERN SPAN (SPAN 3)

LIFT 2 BEAMS PER NIGHT (4 Nights)  
5<sup>th</sup> NIGHT AS CONTINGENCY

- KWINANA FREEWAY SOUTH BOUND LANE CLOSURES 10PM – 4AM

LEGEND: Open to Traffic █  
Closed to Traffic █



**NO. ITEM / DETAILS**

**Kwinana Freeway night closures (Feb 2019) 10PM – 4AM**

- 2000 – 2100 - Prestart & coordination meetings
- 2100 – 2200 - Set up closure/detours
- **2200 – Freeway Closed**
- 2230 – 0230 - Carry out beam lifts
- 0230 – 0400 - Closure removal prep. work
- **0400 – Freeway Opened**
- 0400 – 0500 - Pack up & debrief meeting

Other traffic impacts and detours include:

- PSP detours
- Farrington Road night closure (5-6 December)
- Bibra Drive closure and detour – (early January - 4 weeks)
- Kwinana Freeway northbound lane realignment – (15 Jan)
- Kwinana Freeway night closures (4-6 Feb and 10-15 Feb)



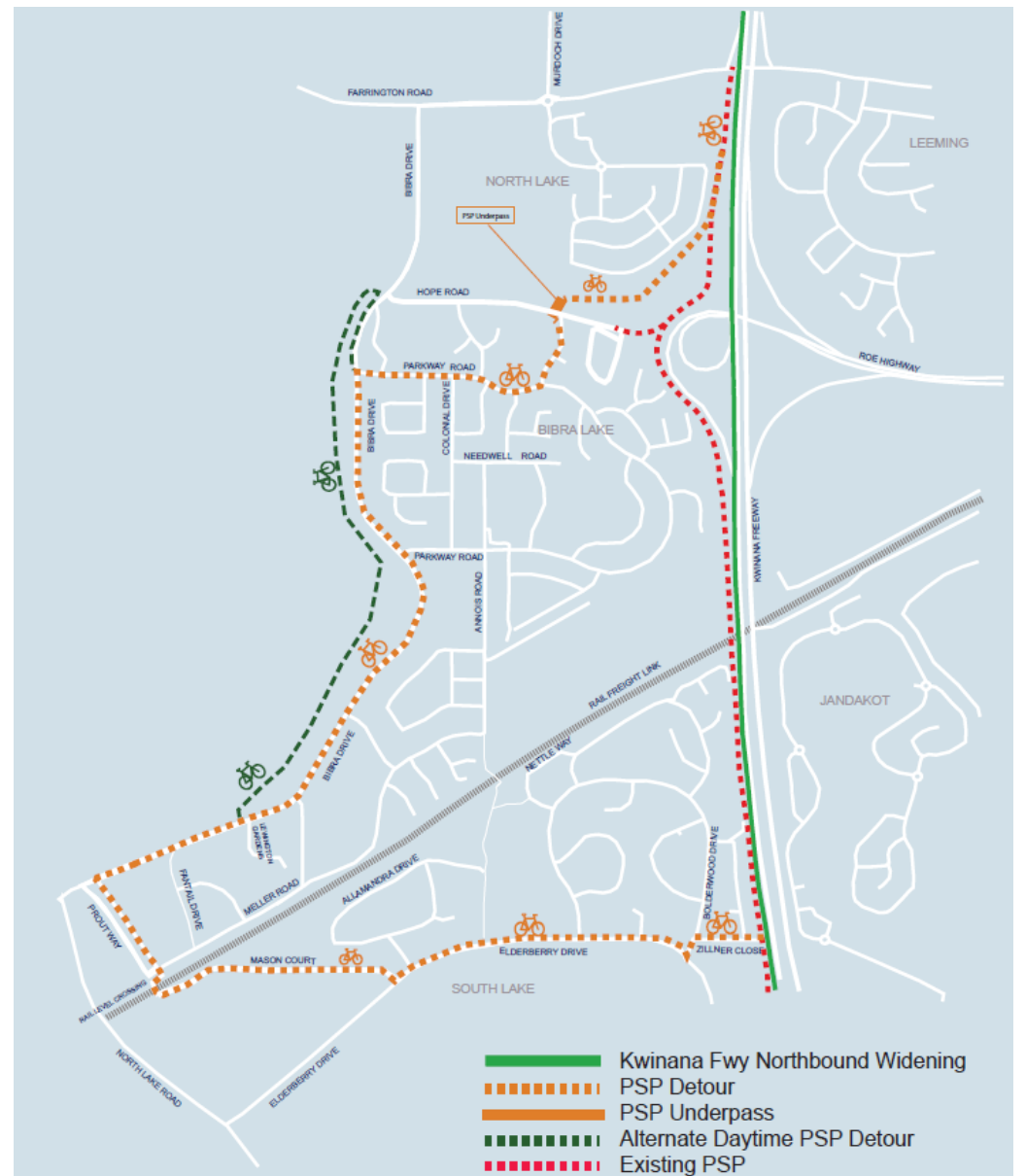
NO. ITEM / DETAILS

PSP detour – Stage 2 (current)



NO. ITEM / DETAILS

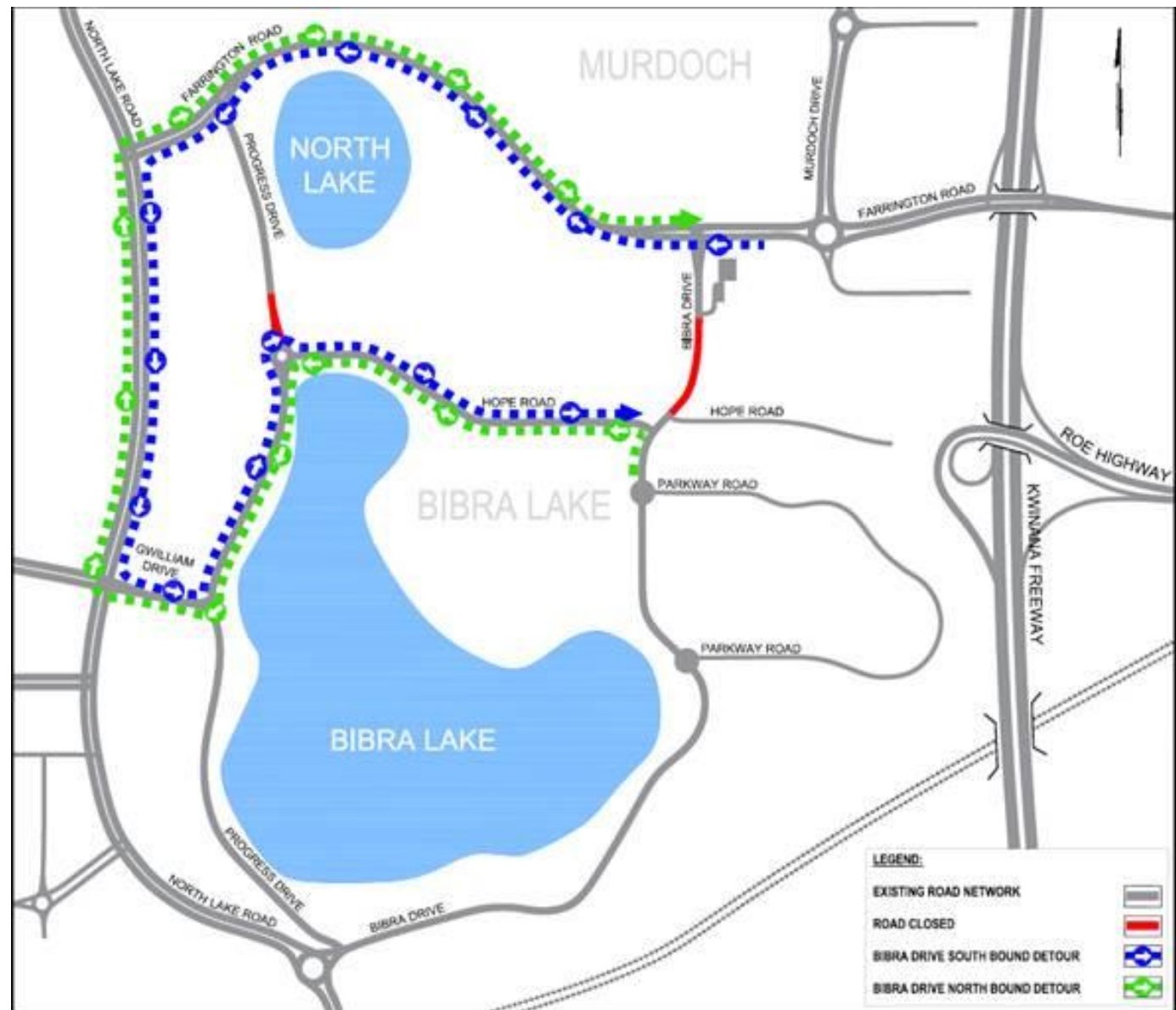
PSP detour – Stage 3 (approx. 21 December 2018)



NO. ITEM / DETAILS

**Bibra Drive closure and detours (Jan 2019)**

- Currently in discussions with PTA regarding bus routes
- Construction team considering how pedestrians are managed



NO.	ITEM / DETAILS
5	<b>QUESTIONS AND ANSWERS</b>
Q	What are the barriers on the northbound lanes of Kwinana Freeway for?
A	To provide safe working space for lane works behind the barriers and for noise wall and other associated works.
Q	The time lapse video is a great resource to help people understand the process.
A	It will remain in place throughout construction and will be used at future meetings to help explain project progress.
Q	How many beams need to be lifted into place?
A	There are 8 beams per span. Two cranes will be used to lift the 48.3m long centre span beams into place as night works with associated lane closures. There are special event considerations to consider when planning the timing of the lift. Events include Scorchers Big Bash League and an Eminem concert.
Q	Will Murdoch Drive be closed for the water pipe works?
A	Works are planned for January 2019 with lane restrictions required to complete the works. Full closure will be avoided if possible but if unavoidable will be done as night works.
Q	Are any trees lost to complete the pipe works?
A	Some minor vegetation may be lost but we have planned the works to avoid existing trees.
Q	Is traffic calming planned for Farrington Road?
A	Breaks in traffic flows along Farrington Road will result from traffic lights. The new concept design shows bus stop treatments. Traffic calming measures are not included. Farrington Road vehicle speeds have reduced significantly but are likely to revert post construction. The City of Cockburn is the asset owner and is willing to consider concerns and suggestions.
6	<b>DESIGN UPDATE – GLENN PARNHAM AND JOELLE LITTLE</b>
	<p>Bibra Drive design update:</p> <p><u>Consultation</u></p> <ul style="list-style-type: none"> <li>– 17 November – 29 November 2019 MRIA in communication and consultation with various environmental groups regarding works planned west of Bibra Drive.</li> <li>– Tree-sit / protest followed and consultation with various environmental groups</li> <li>– Concerns included a group of mature non-native eucalyptus trees identified for clearing and some shrubs, grass and smaller trees (paperbarks and a palm) and construction impacts to the wetland area.</li> <li>– Questions were raised regarding: <ul style="list-style-type: none"> <li>• Fauna fencing</li> <li>• Drainage</li> <li>• Construction methods and materials</li> </ul> </li> </ul>

**NO. ITEM / DETAILS**

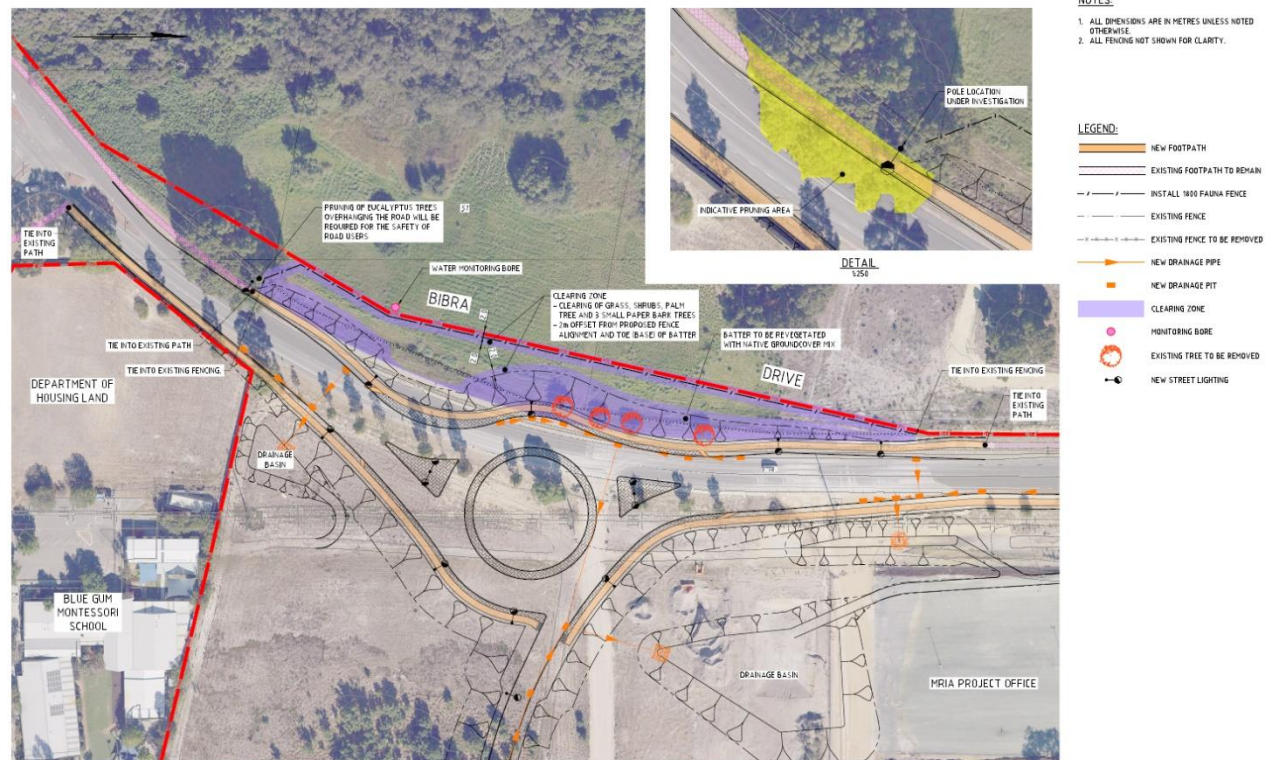
Outcomes

- Redesign of Bibra Drive tie in reduced impact to clearing, with all eucalyptus trees retained as a result (aside from pruning branches overhanging road design)
- Incline heading north to roundabout increased, allowing batter to commence north of tree line
- One palm tree and three small paper bark trees remain in the clearing zone and cannot be retained

Activities in the location include:

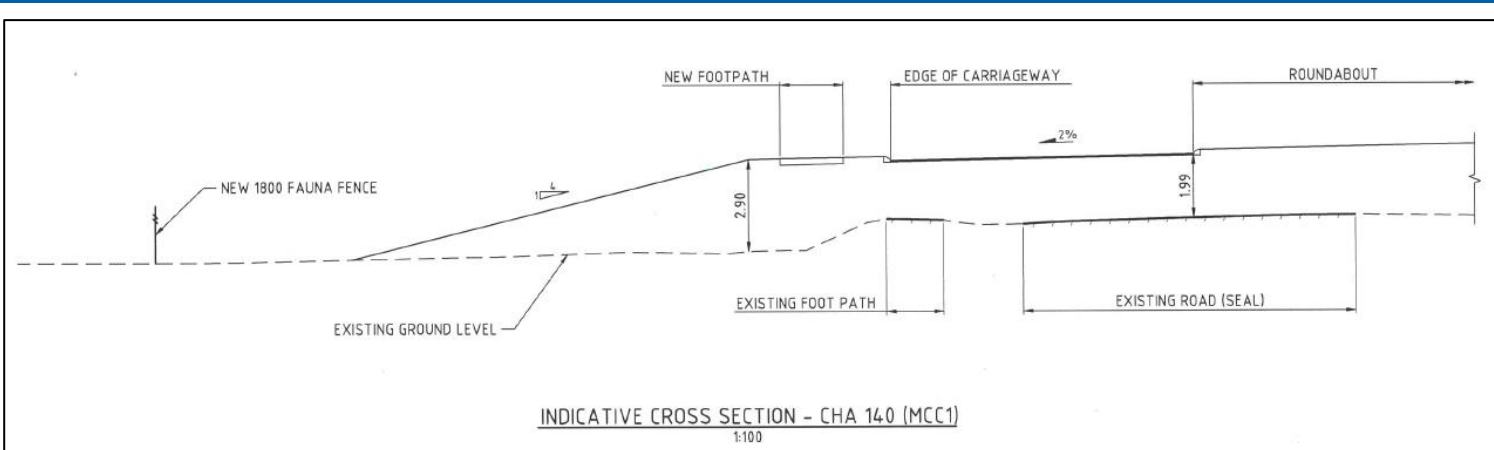
- Installation of fauna fence – complete
- Clearing of grass, shrubs, palm tree and 3 small paper bark trees
- Commence earthworks
- Pruning of the eucalyptus trees
- Closure of Bibra Drive and construction of roundabout

The Bibra Drive design has been revised in response to community concerns. The revised design moves the proposed roundabout tie-in further north and retains most of the existing trees as shown at the right. Some loss of smaller trees and shrubs will still result, along with pruning of trees that will be retained.



NO.	ITEM / DETAILS
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The Bibra Drive cross-section is shown right.



Leeming Noise Wall consultation:

**Catchment:**  
The initial catchment on the entire south west boundary of Leeming adjacent to Roe Highway/ Kwinana Freeway includes 79 properties. Due to an existing 2.4 metre limestone noise wall adjacent to property boundaries south of Farrington Road only extending for 24 properties, 55 of the 79 are without noise mitigation. These **55 are identified as key stakeholders**.

**Communication log:**  
April 2018 – **“Information for Leeming residents’ distributed widely includes information on the on boundary proposed location**  
Letter to residents 21 August 2018 recommends off boundary solution  
Petition 21 May 2018 – off boundary preferred  
Petition 23 August 2018 – on boundary preferred

**Targeted engagement key stakeholders:**  
21, 29 May doorknock and property survey – 55 properties approached, approx 35 contacted  
30 Aug phone calls – 12 phone consult  
31 Aug doorknock – **27 face to face conversations, 28 ‘sorry I missed you’ cards dropped**

**Outcomes:**

- strong support for the provision of an off-boundary noise wall amongst the majority of impacted residents. Of the 55 targeted residents approached, 21 were very supportive, 5 were moderately supportive/accepting and 1 was very opposed
- residents preferring on boundary wall were concerned about noise and also a secondary concern around security
- recommended additional consideration of security fencing to deter crime in between PSP and residential properties



NO. ITEM / DETAILS

Leeming noise wall design



7 QUESTIONS AND ANSWERS	
Q	Will fauna fencing be provided at Bibra Drive roundabout?
A	Yes, but the form and location of the fencing remains to be resolved.
Q	Danna <b>Checksfield passed on her community's appreciation for the effort made to retain the trees at the Bibra Drive roundabout.</b>
A	Thank you, the team appreciates the feedback.
Q	What will happen on the batters when the work is done?
A	The batters will be revegetated and coated in a wetland mix. The species list will be provided to CRG members by Lorelle Little. <b>ACTION: Jorelle</b>
Q	Are the batters compacted?
A	Yes, with a shared path on the shoulders.
Q	What emergency response provisions are made in the event of a fuel spill or other event near the roundabout?
A	Spill kits are in place during construction in the event of an emergency. Water monitoring and compliance testing is also in place. Jorelle will provide additional information following the meeting. <b>ACTION: Jorelle</b>
Q	Will bio-filtration be planted on the batters?

**NO. ITEM / DETAILS**

A It is not currently planned but can be considered. ACTION: Glenn

**8 GOVERNANCE AND ENGAGEMENT \_ JORELLE LITTLE**

Key CSE activities include **Targeted engagement:**

- Major traffic switches and detours
- Leeming noise wall
- Bibra Drive works
- 159 responses to Community sentiment surveys

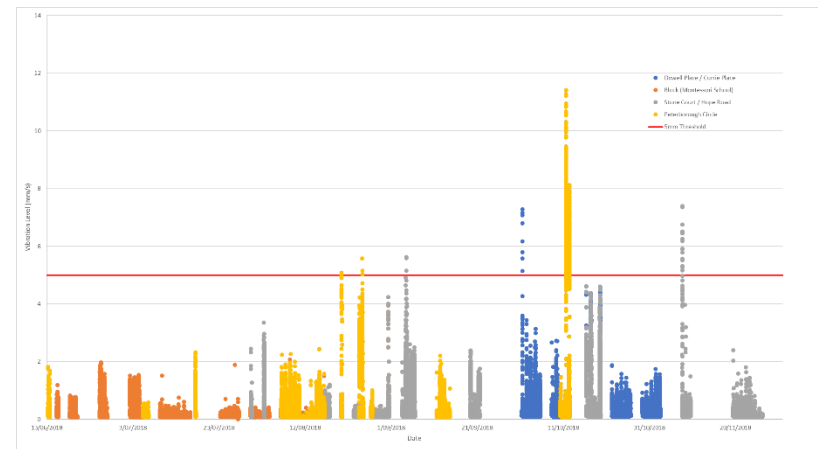
Community contact over time and by topic is graphed below.

Month	Number of Enquiries
May17	1
Jun17	2
Jul17	0
Aug17	13
Sep17	3
Oct17	5
Nov17	8
Dec17	6
Jan18	19
Feb18	55
Mar18	42
Apr18	31
May18	7
Jun18	11
Jul18	21
Aug18	20
Sep18	11
Oct18	30

Topic	Number of times raised
Community Engagement	4
Compensation Claim	3
Customer Service	1
Cyclists	3
Damage	3
Noise	9
Other	3
Parking	1
Pedestrians	1
Projects	8
Road Closure	1
Road Design	2
Road Surface	1
Road Works	7
Safety Issues	1
Signs	2
Speed Limits	3
Traffic Congestion	1
Traffic Management	4
Vegetation	3

**NO. ITEM / DETAILS**

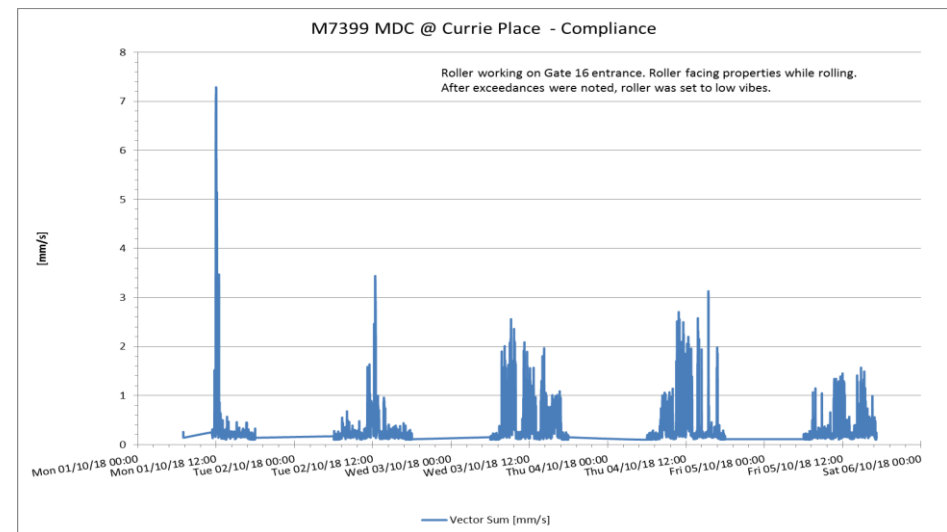
Vibration Monitoring  
 Vibration monitoring is place with interventions applied as required. Monitors are installed at various locations as shown. Data is captured every 30 seconds  
 Range of locations between works and residents  
 >5mm/sec triggers investigation and response  
 Complaints received are sent to construction and environment team to assess



Results from June to December 2018 are shown.

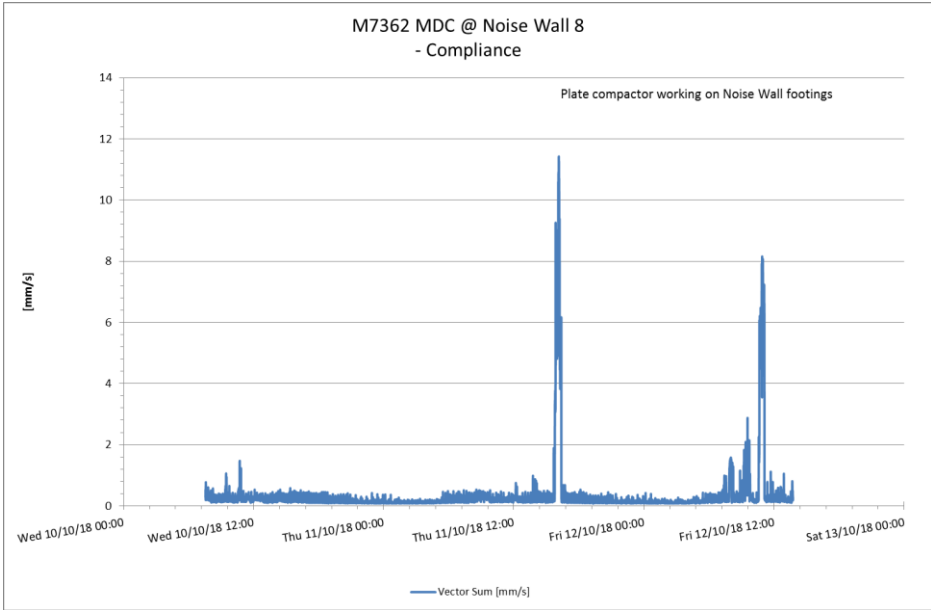
Example responses to vibration complaints

Currie Place vibration monitoring:  
 Resident previously had monitoring conducted at property  
 Was aware of difference between high and low vibs  
 Alerted community team  
 Construction team investigated  
 Changed roller to low vibs



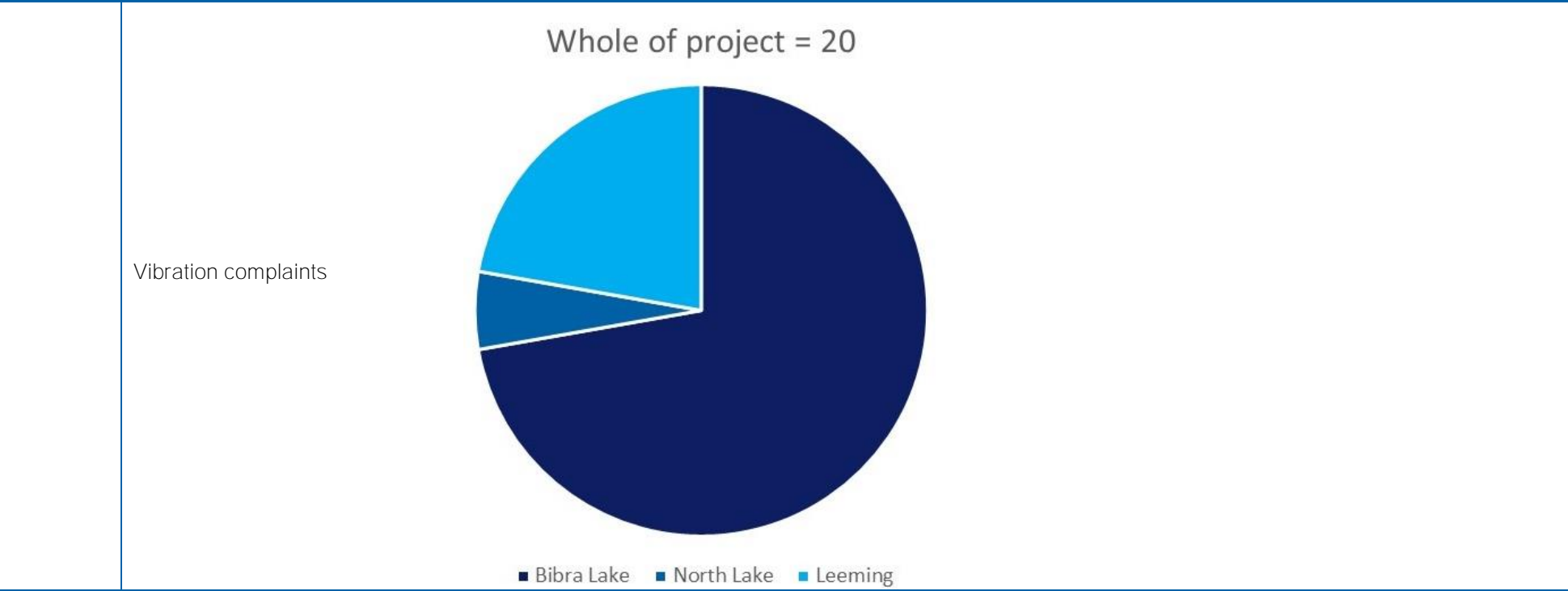
NO. ITEM / DETAILS

Peterborough Circle vibration monitoring:  
Plate compaction  
Following high reading size of plate changed (smaller size)  
Following continued high reading, works were stopped for further investigation of construction methodology



NO.	ITEM / DETAILS
	<p>Stone Court vibration monitoring:  Resident complaint received  Construction team investigated and changed direction of roller  Readings reduced  Committed to reviewing complaints management</p> <div data-bbox="1010 220 2063 914" data-label="Figure"> <p>The graph displays the 'Vector Sum [mm/s]' over time. The highest peak occurs on Thursday, 8/11/18, reaching approximately 7.5 mm/s. Subsequent peaks on Thursday and Friday are significantly lower, generally staying below 4 mm/s. The final peak on Saturday, 10/11/18, is around 1.5 mm/s. The baseline vibration remains very low throughout the period.</p> </div>
	<p>Complaints management:</p> <ul style="list-style-type: none"> <li>• Forward all complaints to the construction and environment team to assess works occurring and if low vibration / oscillating mode is being used</li> <li>• Where possible and resources available – monitoring will be conducted during the works in question</li> <li>• Immediate action taken where necessary and monitoring continues</li> <li>• Results reported back to resident as soon as available</li> <li>• Weekly complaints and response register provided to LGA</li> <li>• Publish summary of vibration data via CRG</li> </ul>

NO.	ITEM / DETAILS
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	<p>Upcoming CSE activities:</p> <ul style="list-style-type: none"> <li>- Project newsletter, January 2019</li> <li>- Roadworks update mid December 2018 and mid-January 2019</li> <li>- Email broadcast updates</li> <li>- Ongoing targeted communication</li> </ul>
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9	CRG MEMBER COMMENT	
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Name	Comment	ACTION
Felicity Bairstow	I have nothing to add at the moment	

NO.	ITEM / DETAILS	
Charles Sullivan	<p>My main concern is the shutdown of Bibra Drive and the detour around the regional playground during school holidays. A suitable response capability is needed during the closure to respond to unforeseen problems. It is a busy area and people park in the area regularly including Adventure World patrons.</p> <p>Jorelle explained that the team routinely completes a Road Safety Audits and responds accordingly throughout the works. The CoC team will also be actively monitoring impacts.</p> <p>Once Bibra Drive re-opens in early February 2019 some work will still have to be completed.</p>	
Samantha	<p>Pedestrians crossing Farrington Road find it difficult especially in peak hour. Opening up of the PSP to get access to the Murdoch Park n Ride is also important with good communications needed to let the community know they can use it.</p> <p>Wetland mix planting species to go to Samantha please.</p> <p style="text-align: right;"><b>ACTION: Jorelle</b></p>	
Dana Checksfield	<p>Please check with CoC to confirm traffic modelling numbers for the future. The wildlife corridor will be affected if Farrington Road traffic increases and then needs to be widened over time.</p> <p>Charles Sullivan noted that the current CoC recommendation is that Farrington Road should not be duplicated with no <b>planning to do so. The CoC's planned post completion</b> traffic counts will give us a better indication of trends and volumes. Main Roads will also do post completion traffic counts but needs to include other projects too when identifying network wide impacts.</p> <p>Some consideration of bio filter methods for drainage basins would also be welcome.</p> <p style="text-align: right;"><b>ACTION: Glenn</b></p>	
<b>NEXT MEETING</b>		
<p>Suggested Agenda topics for discussion:</p> <ul style="list-style-type: none"> <li>• Similar to tonight and reporting back on beam lifts and Bibra closure etc</li> <li>• Projecting forward with look ahead</li> <li>• Site visit if possible and worthwhile with bus journey to suitable site/s.</li> </ul> <p>The next meeting is scheduled for</p> <ul style="list-style-type: none"> <li>• 11 March 2019</li> </ul> <p>The workshop closed at 7:50pm</p>		

**ATTACHMENTS:**

1. Workshop Agenda

ATTACHMENT ONE  
WORKSHOP AGENDA

NO.	ITEM / DETAILS	PRESENTER
1	WELCOME	LINTON PIKE
2	GUEST PRESENTER	LINDSAY BROADHURST
2.1	Traffic Modelling	
3	CONSTRUCTION UPDATE	NELSON SERRAO
3.1	Virtual site tour	
3.2	Construction of bridge over Kwinana Freeway	
3.3	Traffic impacts and detours	
4	DESIGN UPDATE	GLENN PARNHAM
4.1	Bibra Drive	
4.2	Fencing (Stone Court)	
4.3	Leeming noise wall	
4	GOVERNANCE AND ENGAGEMENT	JOELLE LITTLE
4.1	Key CSE activities	
4.2	Community contact	
4.3	Upcoming CSE activities	
5	NEXT STEPS	LINTON PIKE
5.1	CRG member comments	
5.2	Topics of interest for agenda	
5.3	Date for next meeting	11 MARCH 2019