Coomera Connector Stage 1 Community Reference Group

Questions, issues and opportunities
February 2021



Australian Government

BUILDING OUR FUTURE

Queensland Government

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Introduction

A Community Reference Group (CRG) has been established for Stage 1 of the Coomera Connector (Coomera to Nerang) to ensure community members, environmental groups and businesses close to the project can provide input to influence key project negotiables.

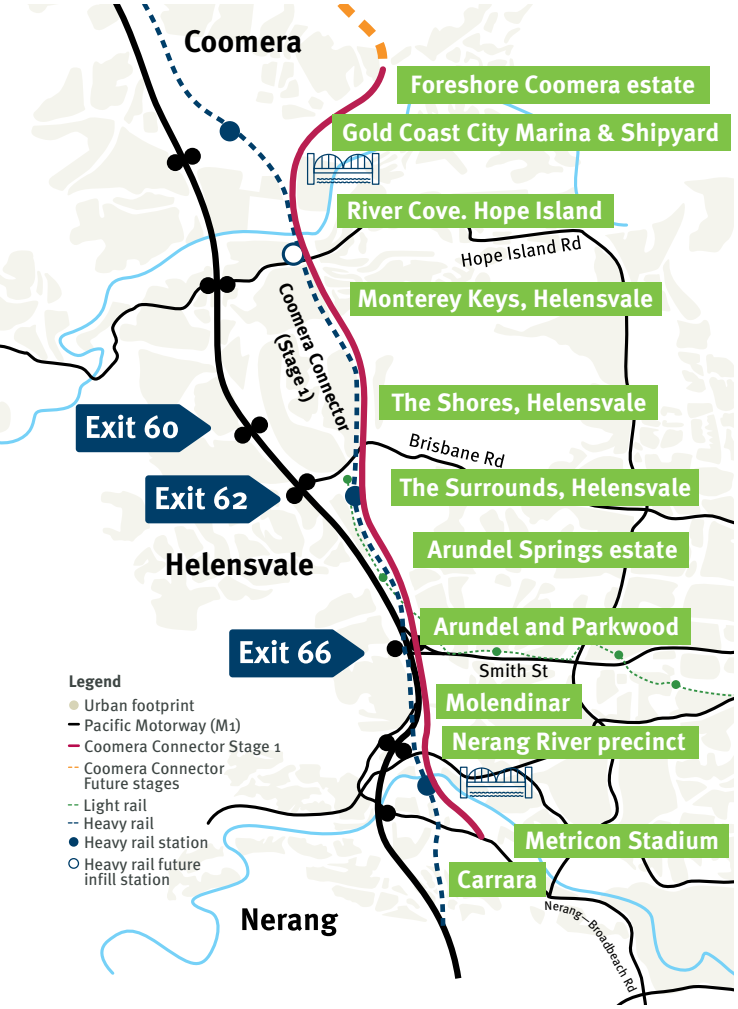
The CRG was established in August 2020 and will conclude at the end of the business case phase in mid-2021.

The group consists of:

Residential stakeholders
- 10 local communities along the project corridor

Business stakeholders
- Gold Coast City Marina & Shipyard
- Gold Coast Suns
- Metricon Stadium

Environmental stakeholders
- Coomera Conservation Group
- Gecko Environment Council



The objectives of the CRG are to:

- facilitate coordinated meetings between the Department of Transport and Main Roads (TMR) and the community to allow sustainable, well-supported project outcomes
- draw on local knowledge and gain an understanding and sharing of issues in Stage 1
- provide an opportunity for the community to provide input into identified project negotiables.

The project negotiables and non-negotiables as presented to CRG members in the first CRG meeting on 2 September 2020 are:

Negotiables
- Design of noise barriers
- Design of retaining walls
- Landscaping and planting in and around the project corridor
- Design of shared path for walking and bike riding *(including items such as shade trees, viewing platforms, rest areas, seating and bubblers).*

Non-negotiables
- Location of the road
- Number and width of lanes
- Relevant safety and design requirements including speed limit
- Engineering elements

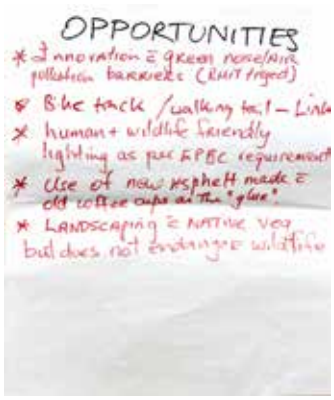
Questions, issues and opportunities

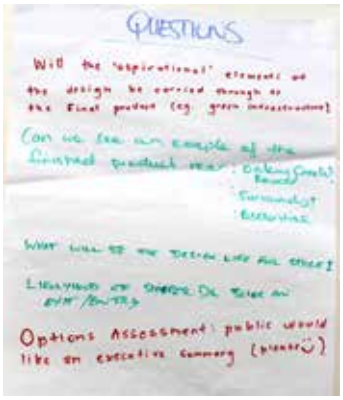
During the first CRG meeting, CRG members were asked in three geographically based groups to identify questions, issues and opportunities for Stage 1 of the Coomera Connector. The group identified 76 items in total including 32 questions, 27 issues and 17 opportunities.

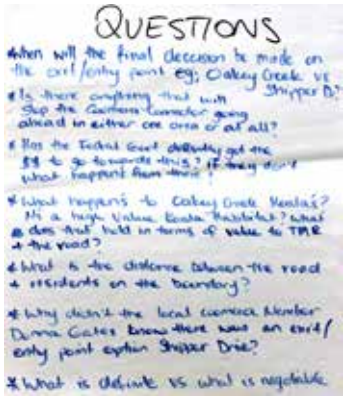
While the three groups identified items specific to their geographic areas, a number of items raised were similar. TMR has therefore grouped the items into a series of themes in this document.

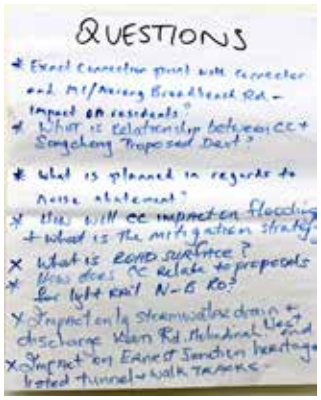
The purpose of this document is to outline TMR's responses and suggested approaches to the 76 items raised by CRG members.

The following list of questions, issues and opportunities were captured by CRG members in the first meeting of the CRG on 2 September 2020.

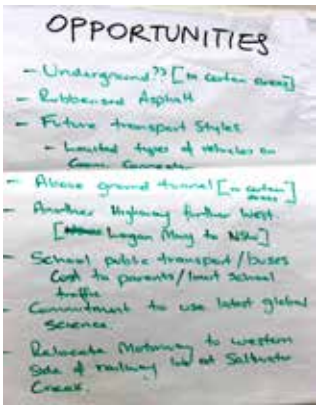


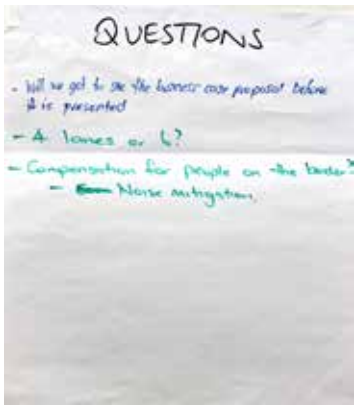




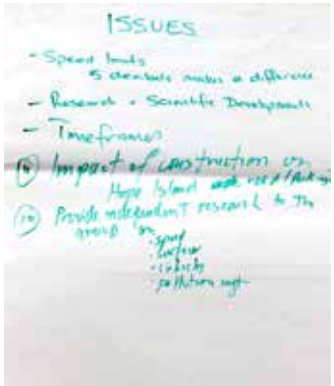


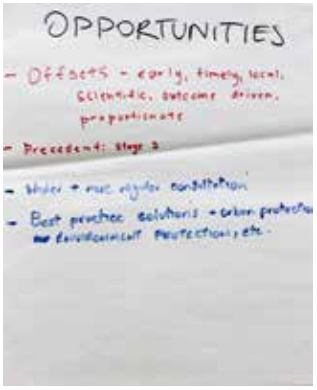














Funding commitments and current planning

I Orderly sequencing of decisions

Q Has the Federal Govt definitely got the $$ to go towards this? If they don't, what happens from there?

Q Is there anything stopping the Coomera Connector going ahead in either one area or at all?

Q Will we get to see the business case proposal before it is presented?

O Precedent for stage 2

O Wider and more regular consultation

QUESTION - ISSUE - OPPORTUNITY

On 20 September 2020, the Queensland Government committed $755 million for the planning and construction of Stage 1 of the Coomera Connector between Coomera and Nerang. The Australian Government matched the $755 million commitment in the Federal budget on 6 October 2020.

The total funding commitment for Stage 1 of the Coomera Connector is now $1.53 billion, including the cost of development of the business case.

Following environmental approvals and government consideration and approval of the business case, construction of Stage 1 is expected to commence from mid-2021. **A summary of the business case will be released to the community following government consideration and approval.**

In addition having the opportunity to provide feedback during formal consultation periods, community members are welcome to contact the Coomera Connector project team at any time to provide feedback or discuss concerns about the project.

In parallel with the development of the business case, the delivery strategy for the project has been developed with Stage 1 to be delivered in three geographic work packages.

- Stage 1 North: Shipper Drive, Coomera to Helensvale Road, Helensvale
- Stage 1 Central: Helensvale Road, Helensvale to Smith Street Motorway, Molendinar
- Stage 1 South: Smith Street Motorway, Molendinar to Nerang-Broadbeach Road, Nerang

Procurement of the Stage 1 North package commenced in December 2020.

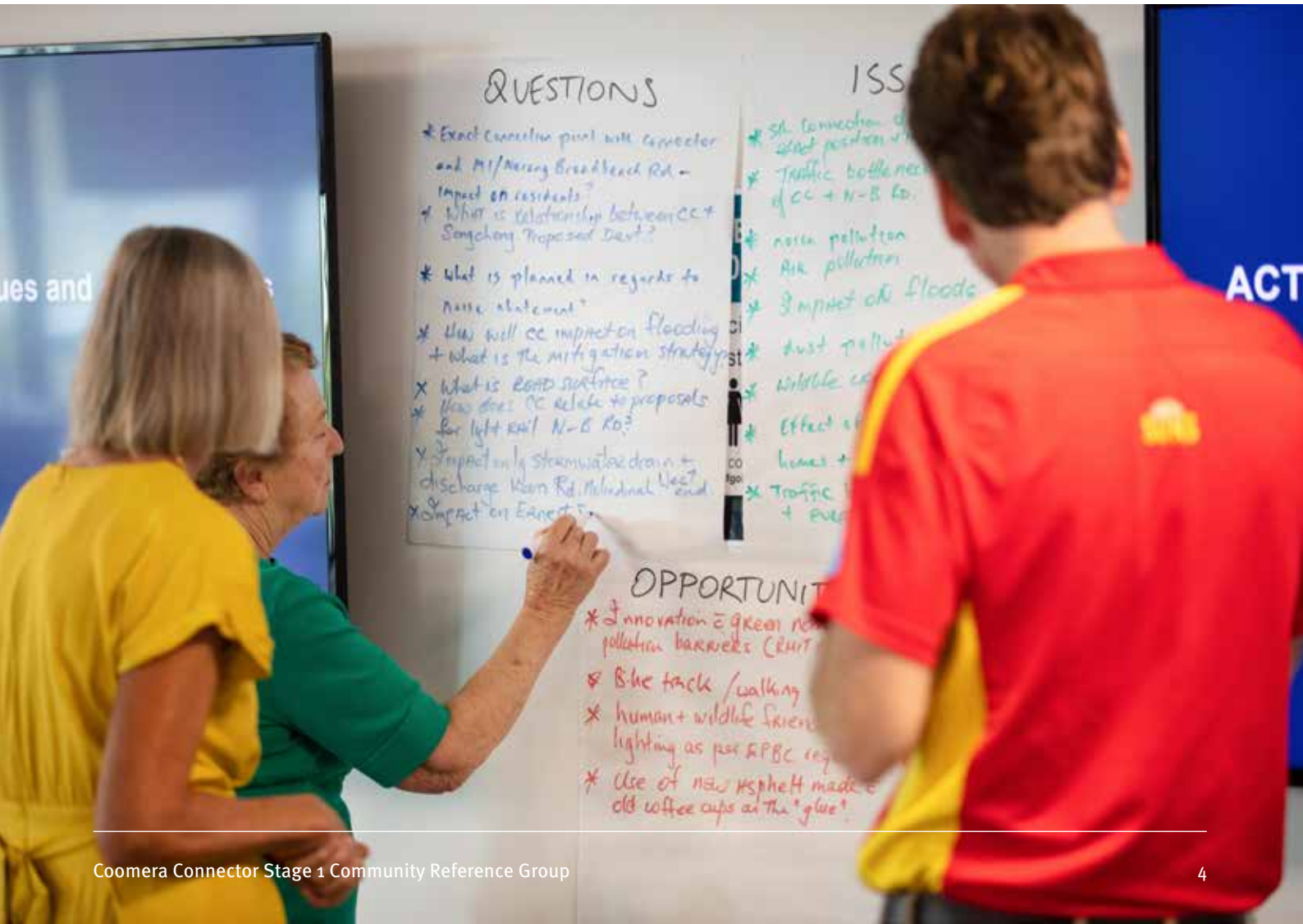
The Stage 1 North construction contract is expected to be awarded in mid-2021, following government consideration of the Coomera Connector Stage 1 business case.

Planning for the northern section of the Coomera Connector between Loganholme and Coomera will be progressed as future stages. Funding has not been committed and timing has not yet been confirmed for progressing planning of the future stages.


OPPORTUNI






QUESTIONS
OPPORTUNI
ACT

What is confirmed and what is still negotiable for the Coomera Connector?

Q **Options assessment: public would like an executive summary please**

O **Another highway further west (Logan Mwy to NSW)**

O **Relocate motorway to western side of railway at Saltwater Creek**

Q **What is definite v what is negotiable?**

Q **Green infrastructure – where does it fit on the list of negotiables/ non-negotiables?**

QUESTION - ISSUE - OPPORTUNITY

Options analysis summary

In the preliminary evaluation phase of the project from late 2018 to early 2020, TMR identified and assessed a range of options for addressing growing congestion issues on the Pacific Motorway (M1) between Loganholme and Nerang including:

- Maintaining the existing network with only minor upgrades
- Travel demand management through policy changes
- Smart motorways and intelligent transport system technology
- Interchange upgrades on the M1
- Service road upgrades adjacent to the M1
- Widening the M1 with additional lanes
- Dedicated freight lanes on the M1
- Heavy rail and public transport network upgrades
- New road infrastructure and multi-modal road solutions
- High frequency public transport corridor
- Active transport initiatives.

The possible options were assessed via a staged approach and consultation with key stakeholders using both qualitative and quantitative multi-criteria analysis assessment and detailed analysis, including scope definition, transport modelling, schematic design, staging analysis, refined cost assessment, and an assessment of the optimal packaging strategy.

Overall, the assessment determined the highest level of benefits could be achieved by delivering the Coomera Connector in parallel with ongoing future safety and efficiency upgrades to the M1 corridor.

The Coomera Connector and M1 safety/efficiency upgrades in combination:

- Provides the highest overall benefits in relieving congestion on the M1
- Best addressed the service needs and service requirements
- Provides the optimal transport network outcome for the study area
- Delivers the additional road capacity required in the northern Gold Coast and Logan areas across the four major rivers. A dedicated public transport facility within the Coomera Connector corridor such as a busway will not meet the needs of the growing population and transport demand.
- Provides an additional road asset to facilitate better bus services and complement the existing public transport network and planned public transport upgrades (heavy rail through Cross River Rail and extension of the light rail network to Burleigh Heads).
- Includes active transport infrastructure on the Coomera Connector that will enhance connectivity and promote all transport modes.

In the options analysis process, TMR specifically investigated whether a stand-alone public transport option could contribute, or achieve, the project objectives. It was found that overall, public transport as a standalone transport solution will not address the service need to reduce congestion on the M1. This is primarily due to the existing mode share and the volume of car-based trips in the transport network. **While public transport is an important part of the future design and development of the Coomera Connector due to the increased accessibility and connectivity it provides, it does not provide sufficient positive transport outcomes to be considered as a standalone option at this time.**

When constructed, Stage 1 of the Coomera Connector is anticipated to improve transport capacity and accessibility, while also reducing local trips on the M1 by providing:

- an alternative north–south route between Coomera and Nerang
- additional crossings of the Coomera and Nerang rivers
- improved safety on the M1, reducing congestion by encouraging up to 60,000 vehicles per day to use the Coomera Connector for local trips
- more reliable travel times between Brisbane and the Gold Coast.

New road further west?

A new highway further west of the M1 was not considered as part of the options analysis because traffic modelling shows congestion on the busiest part of the M1 is primarily caused by local motorists who are using the M1 for short trips to cross the Coomera River.

Moving the Stage 1 corridor to the west of the M1 would mean expanding communities located to the east of the M1 would have no choice but to continue to use the M1 for short trips within the local region.



Project negotiables

For Stage 1 of the Coomera Connector to deliver the required transport outcomes for the northern Gold Coast area and be safe and effective road infrastructure, some aspects of Stage 1 of the Coomera Connector are deemed to be non-negotiable.

The non-negotiables include:

- Location of the road
- The speed of the road
- Number and width of lanes
- Relevant safety and design requirements (including speed limit)
- Engineering elements.

To ensure the community has an opportunity to provide input into the project, particularly residents who live close to the project corridor, a number of urban design-related aspects of the project are negotiable.

The project negotiables are the elements of the project that community input can influence the outcomes.

Community input will continue to be invited about the project negotiables:

- Design of noise barriers
- Design of retaining walls
- Landscaping and planting in the and around the project corridor
- Design of shared walking and cycling paths such as shade trees, viewing platforms, rest areas, seating and bubblers.

Green infrastructure

TMR will continue to consult with environmental stakeholders and conservation specialists about the inclusion and design of green infrastructure, including fauna movement structures.

While green infrastructure is not considered a project negotiable, TMR will include environmental management as an agenda item for the next Community Reference Group meeting, expected to be in April 2021.

What will the Coomera Connector look like?

Q 4 lanes or 6 lanes?

Q What will be the design life for Stage 1?

Q Can we see an example of the finished product near:
- Oakey Creek Road
- The Surrounds
- Residential

Q What is the distance between the road and residents on the boundary?

O Bike track/walking trail – link

O Landscaping and native vegetation but does not endanger wildlife

O School public transport/buses, cost to parents/limit school traffic

QUESTION - ISSUE - OPPORTUNITY

Number of lanes and design life

While the Coomera Connector corridor is wide enough for six lanes, predicted traffic volumes will inform the number of lanes that will be included in the reference design and business case for Stage 1.

The reference design will form the scope of the project that needs to be built from mid-2021, to meet the anticipated traffic demands in the medium-term.

TMR is also developing a master plan for the project which will identify the requirements for the Coomera Connector in the long-term.

In sections where a reduced number of lanes are built as part of Stage 1, the project will be designed to enable additional lanes to be added as a future upgrade to the Coomera Connector.

Project imagery

As planning progresses, more information about what the Coomera Connector will look like will be available.

TMR has developed a 360 degree panorama viewer to enable the community to explore the concept design in detail, available online at:

coomeraconnector360.tmr.qld.gov.au

Artist impression drawings showing concepts for the key negotiable urban design-related aspects of the project were presented to CRG members on 27 November 2020. The artist impression drawings will be publicly released in early 2021.

Following feedback from the community and further assessment, the northern end point for Stage 1 of the Coomera Connector is now confirmed as Shipper Drive, Coomera. The connection at Shipper Drive will improve accessibility for the Gold Coast Marine Precinct and minimise impacts to the Foreshore Coomera estate and Foxwell State Secondary College.

Design of the Coomera Connector in the vicinity of Oakey Creek Road will be undertaken as part of the future stages between Loganholme and Coomera. There is no funding to undertake planning of the future stages at this time.



Helensvale Road interchange

Distance between Coomera Connector and residences

The width of the gazetted Coomera Connector corridor varies, with it being wider in areas where interchanges are planned and narrower in highly constrained areas. The corridor through Arundel and Hope Island, are two of the most constrained parts of the project corridor.

The distance between the new road and residences will therefore vary in different locations.

Where possible, vegetation will be retained between the Coomera Connector and residences. Noise barriers will also form a barrier between the Coomera Connector and adjacent residences where needed.

Shared path for walking and bike riding

Improving the active transport network is a key objective for the Coomera Connector project with shared paths for walking and bike riding expected to be included in the design and integrated with local communities as part of the delivery of Stage 1.

The shared path will increase opportunities for active transport and, by connecting with existing local footpaths, provide additional connectivity between local communities and amenities.

Based on community feedback, TMR is investigating opportunities to position the shared path away from the road where possible and closer to local communities, providing shade and better experience for people using the shared path.

Landscaping and native vegetation

Community feedback has indicated a strong preference for native vegetation to be retained where possible and used for planting in and around the project corridor. In addition to supporting local wildlife populations, native vegetation will help screen views of the Coomera Connector from nearby residences.

Also in response to community feedback, in some locations climbing vines (Ficus pumliia) may be grown on noise barriers to improve the appearance and user experience of the shared path near residences. Ficus pumila does not have flowers or fruit and therefore will not endanger wildlife.

Public transport

The Coomera Connector will improve public transport in the northern Gold Coast area by enabling new bus routes to be created using the Coomera Connector.

The Coomera Connector will improve reliability of bus services, contributing to greater use of public transport and user satisfaction.




OPPORTUNITIES













What will the road surface be?

Q What is the road surface?

Q What will the surface be made of?

O Use of new asphalt made of old coffee cups as the 'glue'

O Rubberised asphalt

I Research and scientific developments

QUESTION - ISSUE - OPPORTUNITY

The surface of the road for the Coomera Connector has not yet been confirmed, however a recommendation for the road surface will be included in the Stage 1 business case for government consideration.

While concrete was selected as preferred pavement for the then less urbanised sections of the M1 when it was constructed in the late 1990s, road technologies have since evolved and concrete is not routinely used for road pavements on state-controlled roads in urbanised areas in Queensland.

Today, there are a range of newer road surfaces under consideration for the Coomera Connector including more sustainable products containing recycled materials, and open graded asphalt, which is one of the quietest pavement surfaces used within the Queensland State-controlled road network.

TMR is committed to the Queensland Government's new Waste Management and Resource Recovery Strategy, particularly working towards a circular economy.

While research is continuing, many projects in TMR already identify ways to reduce waste and emissions to deliver sustainable infrastructure, including:

Glass - 10 to 20% recycled glass can be used in roads

TMR is finding ways to use recycled crushed glass as a substitute for sand and aggregate in road materials. Up to 10 per cent can be used in asphalt bases and up to 20 per cent in gravel bases. TMR is investigating the use of recycled glass in concrete, as bedding and backfill sand around pipes.

Crumb rubber - 1.1 million tyres forecast to be saved from landfill by June 2021

Used tyres are recycled and processed into crumb rubber, which is blended into bitumen to be used in asphalt and sprayed seals. Crumb rubber not only recycles old tyres, but can improve the longevity and performance of roads.

Reclaimed asphalt pavement (RAP) – up to 40% RAP can be used in new asphalt

When asphalt is removed from existing roads it is processed into reclaimed asphalt pavement (RAP) material which can be incorporated back into new asphalt.

The use of RAP provides cost savings, reduces our reliance on raw aggregate and bitumen, and diverts waste from landfill.

Construction contractors may use initiatives like these to meet sustainability targets for the Coomera Connector project.

Connection points for the Coomera Connector

Q **We believe the Gold Coast Council wants assurance that there will be an on/off ramp as well as a service road beside the Coomera Connector, joining Hope Island Road and River Cove. Could we have some details relating to this?**

Q **Likelihood of Shipper Drive being an exit/entry?**

Q **Why didn't the local Coomera councillor Donna Gates know there was an exit/entry option at Shipper Drive?**

Q **When will the final decision be made on the exit/entry point at Oakey Creek v Shipper Drive?**

QUESTION - ISSUE - OPPORTUNITY

Hope Island Road investigations

TMR has been working closely with the City of Gold Coast on the planning of the Coomera Connector for many years.

In consultation with the City of Gold Coast, a range of options were investigated to provide a connection to the Coomera Connector at Hope Island Road.

Given the significant constraints in the local area, all options for linking to Hope Island Road, including the concept of a service road between Beattie and Hope Island Roads would involve a significant number of property impacts. In addition to causing flooding in homes that do not normally flood, approximately 75–120 residential and commercial properties would likely need to be resumed to accommodate the connection at Hope Island Road. This is not deemed to be an appropriate community outcome for the communities of Hope Island and Monterey Keys.

Shipper Drive, Coomera

Following feedback from the community and further assessment, the northern end point for Stage 1 of the Coomera Connector is now confirmed as Shipper Drive, Coomera. The connection at Shipper Drive will improve accessibility for the Gold Coast Marine Precinct and minimise impacts to the Foreshore Coomera estate and Foxwell State Secondary College.

Elected representatives (from all three levels of government) are briefed regularly about the project. Most recently, TMR briefed councillors who are part of the City of Gold Coast Transport and Infrastructure Committee in November 2020.

The confirmed connection points where motorists will be able to get on and off the Coomera Connector are:

1. Shipper Drive, Coomera
2. Helensvale Road, Helensvale
3. Gold Coast Highway (Brisbane Road), Helensvale
4. Smith Street Motorway, Molendinar
5. Southport-Nerang Road, Ashmore
6. Nerang-Broadbeach Road, Nerang.

How will the Coomera Connector join Nerang-Broadbeach Road?

Q **Is Nerang considered start or end of Coomera Connector?**

Q **Exact connection point with connector and M1/ Nerang-Broadbeach Rd – impact on residents?**

I **Southern connection of Coomera Connector and Nerang-Broadbeach Rd – exact position and impact on residents**

I **Traffic blocked during Suns games and events**

Q **What is the estimated number of vehicles on the new road, particularly those likely to leave or enter at the Nerang end? I'm concerned that a major bottleneck could eventuate. The plans to date just appear to end on the Nerang-Broadbeach Rd near Nerang with no clear link to the M1 or anywhere else.**

I **Traffic bottleneck and connection of Coomera Connector and Nerang-Broadbeach Rd**

Q **What is the relationship between Coomera Connector and Songcheng proposed development?**

QUESTION - ISSUE - OPPORTUNITY

The southern end of the Coomera Connector will integrate with Nerang-Broadbeach Road near the intersection of Chisholm Road and Lakeview Drive, however based on the concept design, no changes are proposed to the current arrangement of this intersection.

A new signalised intersection will be built near Boulton Drive, allowing traffic to enter the Coomera Connector to and from Nerang-Broadbeach Road to the west. TMR is working with the Gold Coast Suns and Metricon Stadium to consider potential impacts of the new intersection on traffic flows of buses travelling from Nerang station on game days.



Nerang-Broadbeach Road intersection

Traffic modelling for the business case indicates the busiest sections of Stage 1 of the Coomera Connector will be between Coomera and the Smith Street Motorway. Traffic volumes on the Coomera Connector between Smith Street Motorway and Nerang are expected to be lower.

As traffic will enter and exit the Coomera Connector at six different locations, it is not expected to cause traffic bottlenecks at Nerang-Broadbeach Road.

Proposed Songcheng development

As part of the assessment process, the development application for Australian Legend World at Nerang was referred to the State Assessment and Referral Agency (SARA) as a referral agency, who sought technical advice from TMR. SARA and TMR have liaised with relevant parties to address questions in relation to the provision of access to the proposed development site, while protecting the function of the Coomera Connector. The City of Gold Coast is ultimately responsible for assessing and determining the outcome of the development application.

Could tunnelling be used for the Coomera Connector?

- O Underground in certain areas
- O Above-ground tunnel in certain areas

QUESTION - ISSUE - OPPORTUNITY

Increasing levels of congestion on the M1 and the surrounding local traffic network, coupled with forecasts for significant future population growth in the northern Gold Coast area means a solution to alleviate congestion, particularly for the busiest part of the M1 between Coomera and Smith Street needs to be delivered as a priority.

The Australian and Queensland Governments have committed a total of $1.53 billion for the planning and construction of Stage 1 of the project.

While the final estimated cost of delivering Stage 1 will be confirmed in the business case to be completed by mid-2021, the cost of tunnelling linear infrastructure projects are known to be abundantly greater than the cost of non-tunnelled solutions, effectively making tunnelling an unaffordable option that would prevent the project from being delivered.

Above ground tunnels would also be a cost prohibitive option.



Research and future technologies

O **Commitment to use latest global science**

O **Future transport styles – limited types of vehicles allowed on Coomera Connector**

I **Provide independent research to the group on speed, surface, decibels, pollution mitigation**

QUESTION - ISSUE - OPPORTUNITY

TMR's vision and purpose is 'creating a single integrated transport network accessible to everyone'. To meet this vision and purpose, planning and delivery the Coomera Connector will align with the organisation's strategic priorities:



TMR aims to be RESPONSIVE by enabling adaptive solutions to its network, services and workforce that respond to emerging transport technologies.

Demonstrating its commitment to emerging transport technologies, TMR is currently undertaking Australia's largest on-road pilot of connected vehicles and infrastructure in the City of Ipswich—the Ipswich Connected Vehicle Pilot. Connected vehicle technology, also known as Cooperative Intelligent Transport Systems (C-ITS), enables vehicles to talk to other connected vehicles, roadside infrastructure, and centralised traffic management systems to share awareness messages. The messages can be used to alert a driver of various roadway conditions. Connected vehicles and infrastructure will evolve the way vehicles and our roads interact, and have the potential to enhance safety, reduce congestion, emissions or travel times.

Results of programs like the Ipswich Connected Vehicle Pilot could allow new types of emerging technologies to be adopted for the Queensland state road network, including the Coomera Connector.

Using the Queensland Government's stringent *Queensland Procurement Policy 2019* **TMR engages a range of independent qualified professional consultant firms** to undertake planning, design and construction of infrastructure on behalf of TMR.

Continually striving to be SUSTAINABLE, TMR's road design and construction related policies and manuals are developed regularly updated based on **best practices in other parts of Australia and around the world.**

Further demonstrating the commitment to sustainability, TMR commits to the sustainable design and delivery of major projects through implementation of the Infrastructure Sustainability Council of Australia's (ISCA) Rating Tool. The Rating Tool incentivises a range of sustainable initiatives, including best practice pollution control, ecology protection, community engagement and resource use.

How does the Coomera Connector integrate with other projects and agencies?

I **Different level/departments of government communication – TMR/Council/QLD Rail**

I **Impact on city planning re density, proximity to Coomera Connector**

Q **Has the future of Norwell been considered?**

I **On/off ramps – Govt department communication and funding responsibilities**

Q **How does Coomera Connector relate to proposals for light rail on Nerang-Broadbeach Rd?**

Q **When the Helensvale North/Hope Island railway station is built next year, how can a six lane motorway be constructed next to it and fit inside the railway boundary without resumption of River Cove properties?**

QUESTION - ISSUE - OPPORTUNITY

The Coomera Connector project is jointly funded by the Australian and Queensland Governments, with $1.53 billion committed on a 50:50 basis for the planning and construction of Stage 1 between Coomera and Nerang.

As a future state-controlled road, TMR is the state agency responsible for the planning and delivery of the Coomera Connector. The best place to access accurate and up-to-date information about the project is on the TMR website at:

www.tmr.qld.gov.au/coomeraconnector

The City of Gold Coast Council is responsible for management of the city's planning scheme, including making decisions about future planning and densities of areas within the Gold Coast, including Coomera and Norwell. The City of Gold Coast has indicated strong support for the Coomera Connector project since its conception as the Intra Regional Transport Corridor, due to the benefits it will have on the local road network.

TMR has been working closely with the City of Gold Coast on the planning of the Coomera Connector for many years. TMR also works closely with Queensland Rail to manage interfaces between the heavy rail corridor and the state-controlled road network.

In partnership with the City of Gold Coast and in consultation with Translink, TMR is undertaking a Central Gold Coast East-West Public Transport Planning Study over the next two years.

The scope of this study is to assess the feasibility of light rail spur-lines for the following four corridors:

- Broadbeach to Robina Town Centre
- Nobby Beach-Bond University to Robina
- Nerang to Broadbeach
- Varsity Lakes to Burleigh Heads.

The interrelationship between light rail and Stage 1 of the Coomera Connector, which will connect to Nerang-Broadbeach Road will be considered as part of the study.

Future Helensvale North station

The future Helensvale North Station at Hope Island is being planned and delivered by Cross River Rail Delivery Authority with detailed design currently being finalised. TMR will continue to work closely with the Cross River Rail team to manage design and construction interfaces between the two projects.

TMR confirms there is sufficient room between the rail line at Hope Island and the River Cove estate to build and operate the Coomera Connector.

For more information about the planned Helensvale North station at Hope Island, please visit crossriverrail.qld.gov.au or phone 1800 010 875.

How will potential impacts be managed?

Q What is planned regarding noise abatement?

I Noise mitigation – homes on corridor, windows

I Noise pollution

O Innovation and green noise/air pollution barriers (RMIT project)

I Road surface – noise

I Speed limits – 5 decibels make a difference

Q Compensation for people on the border? Noise mitigation

Q How will Coomera Connector impact on flooding and what is the mitigation strategy?

I Impact of floods

Q Impacts on large stormwater drain and discharge Keen Road Molendinar (west end)?

I Air pollution

I Dust pollution

I Light, noise, fumes, dust

I Effect of lights on residents' homes and wildlife

O Human and wildlife-friendly lighting as per EPBC requirements

O Best practice solutions – carbon protection, environmental protection

QUESTION - ISSUE - OPPORTUNITY

How will road traffic noise be managed?

TMR recognises noise as a key concern for residents who live close to the project corridor. This is a key reason why TMR nominated noise barriers as one of the negotiable aspects of the project, where the community was invited to share ideas on the visual design of noise barriers for the project.

To address road traffic noise for the Coomera Connector, TMR will be guided its *Transport Noise Management Code of Practice Volume 1 (Road Traffic Noise).* By following the Code of Practice (which is available on the TMR website), TMR aims to demonstrate compliance with its General Environmental Duty as required by the *Environmental Protection Act (1994).*

In accordance with the Code of Practice, from July until September 2020, a noise assessment was undertaken at 45 locations surrounding the Stage 1 Coomera Connector corridor between Coomera and Nerang to establish baseline noise levels.

Predicted noise levels from the Coomera Connector are being modelled and assessed against the baseline noise levels to determine where noise mitigation measures such as noise barriers need to be included in the design.

TMR will continue to consult with the community about the urban design-related aspects of noise barriers, including the potential to include vegetation on the barriers to improve their visual appeal.

RMIT noise barrier research proposal

The RMIT research proposal for the retrofitting of existing noise barriers on Melbourne Motorways with ecological barriers has been suggested as a possible solution that could be adopted for the Coomera Connector. The innovative, RMIT proof of concept proposal seeks to add vegetation and noise transformation systems to existing noise barriers to improve noise attenuation outcomes.

TMR's Engineering and Technology branch, which manages the ongoing maintenance of road infrastructure, has conducted an initial review into the suitability of the RMIT proposal for use on the Queensland state-controlled road network. TMR has identified a range of maintenance issues that may limit the suitability of such proposals being implemented on Queensland state-controlled roads.

What other factors are considered when managing road traffic noise?

In addition to noise mitigation measures such as noise barriers being included within the design of the Coomera Connector, the type of road surface to be used on the Coomera Connector will also influence the level of road traffic noise experienced by residents who live close to the project corridor.

For more information about the road surface for the Coomera Connector, please refer to page 10.

While the reduction of the posted speed limit can contribute to slightly lower levels of road traffic noise, changes to the speed limit are not being considered for the Coomera Connector.

Road traffic noise will be managed in accordance with TMR's *Transport Noise Management Code of Practice Volume 1 (Road Traffic Noise).*

Compensation for local residents?

When planning and constructing improvements to the state road network for the future benefit of the community, TMR is mindful of the impacts of roadworks and does everything that can be reasonably expected to minimise inconvenience to residents, commuters and adjacent businesses.

TMR only provides compensation to land owners (or those with a legal registered interest in land) whose land is acquired for road projects.

How will the risk of flooding be addressed?

Stage 1 of the Coomera Connector crosses two major rivers; the Coomera and Nerang Rivers in addition to Saltwater and Coombabah Creeks at Helensvale.

Hydraulic modelling has been undertaken to determine potential impacts on the water levels, flow and velocity of the floodplains and watercourse crossings throughout the Stage 1 corridor.

Bridges and culverts (rather than embankments) will be used within the length of floodplain crossings to minimise changes to existing flood patterns including flood height, duration, flows, directions and velocities.

The design criteria for the Coomera Connector will ensure no existing dwellings are adversely affected by flood events up to the 1 in 100-year average recurrence interval (ARI) flood event.

All existing stormwater drains will be comprehensively considered in the detailed design of the Coomera Connector. Adjustments may need to be made to the local stormwater drains such as Keen Road.



How will air pollution, light and dust be managed?

When building and upgrading state-controlled road infrastructure in Queensland, TMR is required to comply with all relevant legislation.

To manage the effects of road traffic on local air quality and ensure legislative compliance, TMR is guided by its *Road Traffic Air Quality Management Manual.* Based on best practice environmental management in other parts of Australia and the world, the purpose of the manual (which is available on the TMR website) is to guide an integrated design process including air quality considerations so that social, economic, visual, safety, community and environmental factors are not compromised. The manual outlines environmental management practices to reduce the impact of road air pollutant emissions.

The Department of Agriculture, Water and the Environment (DAWE) has determined that Stage 1 of the Coomera Connector is to be a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC)*. TMR is currently preparing a public environment report which the community will be provided with an opportunity to comment on.

As part of the EPBC approval process, DAWE will outline conditions that TMR must comply with when constructing Stage 1 of the Coomera Connector. TMR will comply with all conditions set by DAWE under the EPBC Act including any conditions about wildlife-friendly lighting.

Lighting will be included in the design of the Coomera Connector to ensure safety of motorists and pedestrians. Street lighting will be designed in accordance with *Australian Standard 1158: Lighting for Roads and Public Spaces* and consistent with relevant design standards as set out under the *Australian Standard 4282: Control of the Obtrusive Effects of Outdoor Lighting.*

During construction, dust suppression will be managed as part of the construction contractor's construction management plan, which needs to be approved by TMR.

Dust suppression strategies during construction may include:

- water-cart operation
- wind fencing and surface stabilisation
- covering loads when transporting material where possible.

Sustainable best practice solutions

The Australian and Queensland Governments incorporate social, environmental and economic costs and benefits in project assessment and delivery. TMR commits to the sustainable design and delivery of major projects through implementation of the Infrastructure Sustainability Council of Australia's (ISCA) Rating Tool. The Rating Tool incentivises a range of sustainable initiatives, including best practice pollution control, ecology protection, community engagement and resource use.

To achieve sustainable outcomes for the Coomera Connector project, TMR is committed to the following objectives:

Governance

- Embedding sustainability into the planning, design, construction and operation of the Coomera Connector.

Environmental

- Minimising the greenhouse gas footprint of materials and whole-of-life emissions from the asset
- Protecting and enhancing natural environment values
- As part of the circular economy, maximising reuse and recycling of waste.
- Minimising water use and considering non-potable water sources.

Economic

- Maximising asset whole-of-life value of the infrastructure and minimising whole-of-life costs

Social and cultural

- Developing active transport and accessibility improvements for the community
- Supporting local industry participation and incorporating workforce development opportunities
- Promoting workforce health and safety.




Mark









How will impacts to wildlife habitat be addressed?

I Wildlife, birds, animals, flora

I Coomera Connector is a wildlife corridor (north – south)

I Fragmentation of habitat – existing and future

I Wildlife dispersal – translocation? Wildlife rescue

I Wildlife crossings and connectivity

I Conflict with Koala Conservation Strategy – KPAexemption for CC stage 1

Q KPA in east Coomera – does it pave the way for a PDA?

Q What happens to Oakey Creek koalas? It's a high value habitat. What does that hold in terms of value to TMR and the road?

Q Will the aspirational elements of the design be carried through to the final product eg green infrastructure?

O Offsets – early, timely, local, scientific, outcome-driven, proportionate

QUESTION - ISSUE - OPPORTUNITY

Protecting the environment is an important part of planning for new road and infrastructure projects.

Environmental approvals for the Coomera Connector project are being progressed with the federal Department of Agriculture, Water and the Environment under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC). TMR's EPBC referral for Stage 1 of the project included results of more than 18 months of terrestrial and aquatic ecological surveys in the Coomera Connector corridor.

In August 2020, the Department of Agriculture, Water and the Environment determined Stage 1 of the Coomera Connector would be a controlled action under the EPBC Act and the assessment approach would be by public environment report.

TMR is developing a public environment report which will be available for public comment once complete. The public environment report will include detail of potential environmental impacts of the Coomera Connector and how TMR proposes to mitigate the impacts.

Recognising the importance of koala populations in the northern Gold Coast area, TMR is working closely with koala conservation and management specialists to develop a Koala Management Plan (KMP) which will form part of the public environment report. The KMP is being developed in consultation with environmental stakeholders including the Coomera Conservation Group and Gecko Environment Council and members of the Queensland Government Koala Advisory Council.

The KMP will be developed in line with the provisions of the new Queensland Government Koala Conservation Strategy and will include strategies to facilitate the long-term sustainability of koala populations that overlap with the Coomera Connector corridor. While Stage 1 does not impact on any Koala Priority Areas (KPA), this will ensure that potential impacts on koala populations within and adjacent to the Coomera Connector corridor are carefully considered and are minimised.

Conservation strategies forming the basis of the Koala Management Plan will include:

- undertaking monitoring and research to provide baseline data on koala populations
- best practice fauna movement infrastructure to facilitate the movement of koalas in wildlife corridors
- working with all levels of government and key stakeholders to establish potential future koala habitat areas (local offsets) and maintain important wildlife corridors.

Next steps

TMR will continue to work with CRG members to gain community and business input on the identified project negotiables for Stage 1 of the Coomera Connector between Coomera and Nerang in the lead up to finalising the business case for government consideration in mid-2021.

For the latest information about the Coomera Connector project, visit:

www.tmr.qld.gov.au/coomeraconnector

