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# **Tonkin Grade Separations - Hale Road to Kelvin Road: Annual Project Sustainability Report 2021**

Prepared by Arup

This annual report covers the period from December 2020 to July 2021. A previous annual sustainability report was prepared for the project for January 2020 to November 2020.

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# About this Report

This report has been prepared by the *Tonkin Grade Separations: Hale Road to Kelvin Road* project team on behalf of Main Roads Western Australia. This report forms part of Main Roads' annual sustainability reporting which is integrated into its Annual Report. The report content is prepared in accordance with Global Reporting Initiatives (GRI) principles. Material topics reported in this report have been determined through a materiality process that adheres to the Infrastructure Sustainability Council of Australia (ISCA).

The *Tonkin Grade Separations: Hale Road to Kelvin Road* project is aligned with the ISCA Planning rating framework (version 2.0).

## Introduction

Tonkin Highway forms a key road corridor that currently stretches from Great Northern Highway, Muchea to Thomas Road, Oakford. It forms a crucial artery in servicing key commercial and industrial areas including Perth Airport, Malaga and Kewdale. This project is part of the \$1.2 billion Tonkin Highway Transformation project, which also includes the Tonkin Gap and Associated Works, and Tonkin Extension Projects.

The *Tonkin Grade Separations: Hale Road to Kelvin Road* project is upgrading 7 km of Tonkin Highway to improve connectivity and alleviate congestion between Roe Highway and Kelvin Road.

The project team's vision is for **"a sustainable transport network that meets social, economic and environmental needs"**. The team is committed to delivering a project that achieves the best sustainable outcome that aligns with the United Nations Sustainability Development Goals (UN SDGs) and provides a positive social, environmental and economic legacy for future generations.

# Highlights

Sustainability highlights to date:

- Ongoing community and stakeholder engagement.
- Sustainability Management Plan developed.
- Sustainability Targets developed (including achievement of Planning Targets).
- Material UN SDGs identified.
- Urban Landscape Design Framework and Green Infrastructure Plan developed.
- Water quality monitoring and testing conducted.
- Greenhouse Gas Assessment completed.
- Renewable Energy Options Investigations conducted.
- Resource Efficiency Strategy developed.
- Soil sampling for detection of acid sulfate soils conducted.
- Resilience Plan developed.
- Climate Change and Natural Hazard assessment completed.
- Sustainability related risks and opportunities identified and assessed.

# Overview

Tonkin Highway (H017) is a key north-south artery that connects into some of Perth’s most important corridors such as Reid Highway, Great Eastern Highway, Leach Highway and Albany Highway. Tonkin Highway is identified as a Primary Distributor, which services key economic areas around the Perth metropolitan area, including Perth Airport, Malaga, Bayswater and Kewdale industrial estates.

Main Roads Western Australia (Main Roads) intends to upgrade a 7 km section of Tonkin Highway (SLK 52.80 to SLK 59.77) and to grade separate the intersections at Hale Road, Welshpool Road and Kelvin Road. The project extents are illustrated in Figure 1 below.

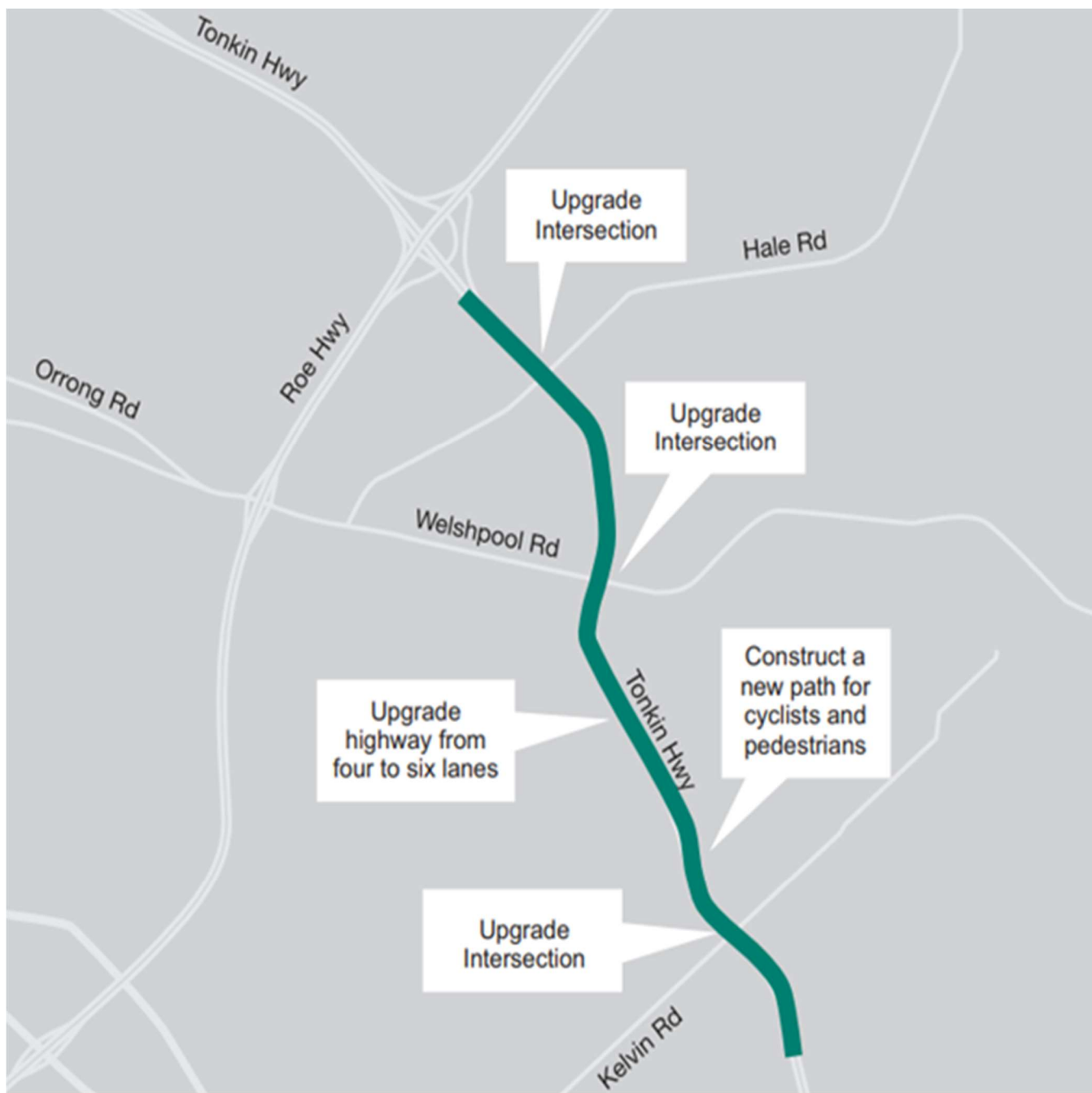


Figure 1: Project Extents

The *Tonkin Grade Separations: Hale Road to Kelvin Road* project aims to reduce congestion, improve safety for road users and increase economic activity, whilst minimising impact to the environmentally sensitive areas found within the project extents. This project also interfaces with various current and future projects, which are listed in Appendix 1.

The Hale Road intersection configuration was initially proposed as a flyover (i.e. no connectivity); however, this configuration has been revised to include north facing ramps in a half diamond interchange configuration to improve connectivity. The proposed Welshpool Road and Kelvin Road configurations will be diamond interchanges.

The *Tonkin Grade Separations: Hale Road to Kelvin Road* project in the interim (Project Case) will provide 3 lanes in each direction with full width shoulders to enable 4 lanes in each direction to be implemented in future (Ultimate Case). This will alleviate congestion and improve the economic efficiency in transporting goods. The scope also includes a Principal Shared Path (PSP) that will be located on the eastern side of Tonkin Highway for the full length of the upgraded extents, with lighting and shared path connections to side roads.

The committed project funding is \$366 million, with an 80/20 split between Federal and State funding. Contract award is anticipated in Quarter 3 of 2022 with construction commencement anticipated in Q4 2022. Please note: This will be a staged delivery contract with Stage 1 (Hale and Welshpool Road interchanges) going to market prior to Stage 2 (Kelvin Road Interchange), with approximately 12 months between award of each stage.

The project website can be found at:

<https://www.mainroads.wa.gov.au/projects-initiatives/projects/metropolitan/tonkin-highway-corridor/>.

## Overall approach to Sustainability in Project Development

Main Roads has registered the *Tonkin Grade Separations: Hale Road to Kelvin Road* project with the Infrastructure Sustainability Council of Australia (ISCA) for a Planning rating under the Infrastructure Sustainability (IS) v2.0 Planning framework. The latest version of the ISCA IS Rating Tool Scorecard has been utilised to demonstrate the level of sustainable practice embedded within the project Works and deliver IS Planning rating components for the Project.

The project has an integrated sustainability team consisting of Main Roads discipline leads and a number of contributing parties (Arup, Landscape Planners, Syrinx, Lloyd George Acoustics, 360 Environmental, IQE and Archae-Aus) working to deliver ISCA credits with the aim of achieving a Bronze ISCA Planning Rating. This scope of work has also required liaison with specific stakeholders, listed in Appendix 3.

The sustainability categories this project have focused on during project Development include:

- Context
- Leadership and Management
- Resilience
- Energy and Carbon
- Green Infrastructure
- Resource Efficiency
- Water
- Stakeholder Engagement.

The *Tonkin Grade Separations: Hale Road to Kelvin Road* project has developed a Sustainability Management Plan (SMP) aligned with the Main Roads Sustainability Policy. The SMP captures the vision and objectives that set the strategic direction for sustainability for the project and focus on these areas will allow the project to achieve sustainability outcomes beyond business as usual. The Keeping WA Moving strategic objective is *“To provide world class outcomes for the customer through a safe, reliable and sustainable road-based transport system.”* In the context of the *Tonkin Grade Separations: Hale Road to Kelvin Road* project, this requires alignment of all phases of a project’s life cycle with the United Nations Sustainable Development Goals (UN SDGs).

The outcome to be achieved for sustainability is to *“develop a sustainable transport network that meets social, economic and environmental needs”*. To achieve this outcome, the following objectives have been adopted by the Project:

- Deliver a concept design of the *Tonkin Grade Separations - Hale Road to Kelvin Road* project that improves the overall road-based transport system and maximises network resilience.
- Improve community amenity, mobility and travel choice whilst reducing indirect environmental impacts.
- Improve operational efficiency and social amenity by providing a viable vehicle transport line to enhance connectivity.
- Enhance economic growth via improved freight efficiencies and local employment.
- Enhance biodiversity and maximise positive environmental outcomes.
- The Environmental Footprint (emissions, pollution, waste, land use and resources) of the Tonkin Highway upgrade is minimised.
- Minimise impacts on Aboriginal Heritage and European listed heritage.
- Maximise innovation and challenge beyond business as usual.

Targeted ISCA credits have been progressed throughout the Development Phase of the project, with due consideration to sequencing and schedule to align with objectives and overall intent of the IS rating scheme. As part of the Planning Phase, sustainability targets have also been set by the project that must be achieved and documented as part of the ISCA process.

The sustainability deliverables for the *Tonkin Grade Separations: Hale Road to Kelvin Road* project will be submitted to ISCA within the next few months with the aim of achieving a Bronze ISCA Planning v2.0 Rating by the end of 2021.

### **Material Sustainability Issues**

Following the Materiality Assessment undertaken during the Kick-Off Sustainability Workshop for this project on 10 February 2020, the UN SDGs assessed as material that the project contributes towards include:

- UN SDG 3: Good Health and Well-Being
- UN SDG 6: Clean Water and Sanitation
- UN SDG 7: Affordable and Clean Energy
- UN SDG 8: Decent Work and Economic Growth
- UN SDG 9: Industry, Innovation and Infrastructure
- UN SDG 11: Sustainable Cities and Communities
- UN SDG 12: Responsible Consumption and Production
- UN SDG 15: Life on Land
- UN SDG 16: Peace, Justice and Strong Institutions

- UN SDG 17: Partnership for the Goals

It should be noted that omission of the remaining UN SDGs from the above list will not result in the project neglecting the potential positive impact it can have on achieving omitted goals; rather they have been assessed to be less material. This assessment feeds directly into the project’s Sustainability Management Plan (SMP), which provided guidance on the work to be undertaken during the project Development Phase, timing and dependencies for facilitating successful integration of sustainability into the design and other activities during project development.

In addition to the materiality assessment, the Kick-Off Sustainability Workshop included a risk and opportunities discussion. This enabled internal stakeholders to list direct and indirect governance, economic, environmental and social risks and opportunities throughout the entire project lifecycle. External stakeholder feedback on the identified risks and opportunities will be requested during the Reference Design. For specific aspects of the project, the most material issues currently identified are listed in the table below:

*Table 1: Material Project Sustainability Issues*

Material Issue	Description
UN SDG 3: Good Health and Well-Being	<ul style="list-style-type: none"> <li>• Consider improved health and wellbeing through upgrading a critical link in the Highway to reduce rates of Killed or Seriously Injured (KSI) road users.</li> <li>• Consider improved health and wellbeing through upgrading a critical link in the PSP network to encourage active transport aligned with the Urban Landscape Design Framework (ULDF), the Green Infrastructure Plan (GIP) and the Long-Term Cycle Network Strategy.</li> </ul>
UN SDG 6: Clean Water and Sanitation	<ul style="list-style-type: none"> <li>• Consider improved surface and ground water quality through implementation of Water Sensitive Urban Design principles and at source control.</li> </ul>
UN SDG 7: Affordable and Clean Energy	<ul style="list-style-type: none"> <li>• Consider alternative renewable energy sources to be used in construction and/or operation.</li> </ul>
UN SDG 8: Decent Work and Economic Growth	<ul style="list-style-type: none"> <li>• Consider improved economic growth through improved freight efficiencies.</li> <li>• Creation of jobs throughout project life cycle.</li> </ul>
UN SDG 9: Industry, Innovation and Infrastructure	<ul style="list-style-type: none"> <li>• Consider reduced material energy and carbon emissions, based on reasonable estimates, calculations or predictions of energy use by the project over its life cycle. Consider Scope 1, 2 and 3 emissions estimates and identify any innovations to reduce as part of the greenhouse gas emission assessment.</li> </ul>
UN SDG 11: Sustainable Cities and Communities	<ul style="list-style-type: none"> <li>• Consider requirements to retain connectivity to the surrounding locality around each interchange.</li> <li>• Consider journeys to local schools/clubs ensuring these are not adversely impacted.</li> <li>• Consider resilience requirements into the future through climate and natural hazards workshop and collaborative risk and opportunities identification.</li> <li>• Ensure emergency service access within the project zone of influence in this high-risk bushfire area.</li> </ul>

Material Issue	Description
UN SDG 12: Responsible Consumption and Production	<ul style="list-style-type: none"> <li>• Address material energy and carbon emissions reductions through using local raw material sources, with reduced haulage resulting in lower impact on local traffic network.</li> <li>• Highway lighting will be the most significant contribution to GHG emissions during project operation.</li> <li>• Consider streamlining the design and power source.</li> <li>• Consideration of transportation of materials to and from site during construction.</li> </ul>
UN SDG 15: Life on Land	<ul style="list-style-type: none"> <li>• Mitigate project impacts through implementation of Green Infrastructure.</li> <li>• Strengthening ecological linkages through aligned landscape design and offsetting impacts (where required).</li> </ul>
UN SDG 16: Peace, Justice and Strong Institutions	<ul style="list-style-type: none"> <li>• Minimise impacts on Aboriginal and European heritage listed areas within the project boundary.</li> </ul>
UN SDG 17: Partnership for the Goals	<ul style="list-style-type: none"> <li>• Strengthen partnerships through proactive stakeholder engagement with the multiple impacted and interested parties.</li> <li>• Identify key issues for external stakeholders. (including road user groups, environmental groups, government agencies, local government authorities and community representatives) and adopt collaborative resolution.</li> </ul>

# Environmental Aspects

## Environmental Context



Figure 2: Banksia Woodlands on Swan Coastal Plain

The project is located within the Perth metropolitan area on the eastern side of the Swan Coastal Plain. The project footprint traverses the City of Kalamunda and the City of Gosnells, approximately 12 km south-east of the Perth Central Business District. The project footprint includes the existing Tonkin Highway road corridor, areas cleared for urban development as well as some native vegetation areas within the Hartfield Park Bushland, Clifford Street Bushland and Greater Brixton Street Wetlands Bush Forever Sites.

There are several environmentally sensitive areas located within the project boundary, including:

- Threatened and Priority Ecological Communities (TECs and PECs)
- Bush Forever Sites – Hartfield Park Bushland (Site 320), Clifford Street Bushland (Site 53) and Greater Brixton Street Wetlands (Site 387)
- Threatened and Priority flora
- Wetlands
- Fauna habitat, including habitat for Threatened and Priority fauna.

See Appendix 2 for a list of the protected fauna and flora species and habitats identified within the project area.

The project intersects two major tributaries – Woodlupine Brook and Yule Brook. Both these brooks are proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act), listed as Canning River and tributaries. Woodlupine Brook intersects the project boundary north of the Hale Road and Tonkin Highway intersection and Yule Brook intersects north of the Welshpool Road and Tonkin Highway intersection. Woodlupine Brook flows in a south westerly direction before joining Yule Brook, and Yule Brook flows in a westerly direction. While field screening tests showed that there are potential acid sulphate soils (PASS) at the Kelvin Road intersection, the associated risk was determined to be low.

The project intersects several registered Aboriginal heritage sites and cultural heritage sites. Main Roads undertook consultation with representatives of the Whadjuk Noongar Representatives as part of an Aboriginal ethnographic and archaeological site identification survey and no new sites were identified. To proceed with the project, application is required for Section 18 consent under the *Aboriginal Heritage Act 1972* (AH Act).



## Environmental Management

The following environmental or heritage approvals, permits or licences are needed for implementation of the project:

- *Environmental Protection Act 1986* Section 38 referral to the EPA
- *Environment Protection and Biodiversity Conservation Act 1999* referral to DAWE
- Aboriginal Heritage (AH) Act section 18 consent
- Licences to construct bore and abstract water
- Bed and banks permit.

Due to the potential for environmental impacts, the project has been referred to the State and Federal environmental regulators for assessment. The project has been referred to the Environmental Protection Authority (EPA) and is currently undergoing Stage 2 of the EPA's assessment process. Details of the EPA's assessment for the *Tonkin Grade Separations: Hale Road to Kelvin Road* project are provided on the EPA website:

<https://www.epa.wa.gov.au/proposals/tonkin-highway-grade-separated-interchanges-hale-road-and-welshpool-road>

An Environmental Management Plan will also be developed for the project that will detail the approach to managing environmental protection, conservation and enhancement and how this will be integrated into the Project's overall design.

Please note: There are two separate referrals for this project (aligned with each delivery stage). The above status refers to Stage 1 (Hale and Welshpool Road interchanges) and stage 2 (Kelvin Road Interchange) will be referred to the State and Federal environmental regulators at the end of 2022.

## Water Management

Groundwater levels across the project range from 14 m to 22 m Australian Height Datum (AHD) and the project is not located in a Public Drinking Water Resource Area. A desktop review of existing information has been undertaken and water quality testing has commenced (wetlands, groundwater, waterways and drainage). The results of this monitoring will be used to investigate water sources and non-potable water use for the project as well as to inform drainage design.

A Water Demand Assessment is currently being undertaken that will identify the following:

- Appropriate water sources and their availability (this includes surface water flows, recycled water and desalinated water).
- Risk and opportunities associated with each water source, including full cycle impact from extraction to discharge.
- Volume of water storage available (dams, reservoirs, aquifers) - if any.
- Estimations of water required during construction and operations.
- Opportunities to influence design to minimise and/or avoid water usage.

The Water Demand Assessment will detail how specific opportunities will be incorporated into design (including timing and responsibilities) to ensure there is an optimal reduction in water demand across the project lifecycle.

## Carbon Emissions & Energy

A Greenhouse Gas (GHG) Assessment has been undertaken for the full extent of the project. The assessment predicted the volume of GHG emissions (including scope 1, scope 2 and scope 3 GHG emissions) throughout the project life cycle. The GHG assessment presents the preliminary 'Base Case' emissions, which is based on the current Reference Design for the project and will be compared to the 'Actual Case' (i.e. 100% Design) in the Design Phase.

The GHG assessment of the IS Base Case has been conducted to meet the requirements for the Energy Efficiency (Ene-1) credit for the IS Planning Rating under v2.0 and the EPA standards.

To compile the energy and carbon footprint for the project, the Carbon Gauge tool created by Transport Authorities Greenhouse Group, was utilised. The Carbon Gauge is an industry carbon calculator, which is a software implementation of the greenhouse gas calculation methods described in the GHG Assessment Workbook. Carbon Gauge provide a means of estimating the materiality significant whole of life GHG emissions during the major road activities of construction, operation and maintenance calculated over a 50-year infrastructure life.

Based on the assessment, the major sources of greenhouse gas emissions for this project are material production and construction, fuel combustion during construction, and vehicle use on the road during operation.

It is important to focus on strategies to reduce GHG emissions for this project to improve air quality and consequently the health and well-being of the road users and natural environment. The following opportunities have been identified to reduce emissions throughout the project lifecycle and will be investigated in further detail in the Design Phase to determine if they are feasible.

Table 2: Emission reduction opportunities

Opportunity	Positive Impact
Reduce area of vegetation to be removed within the project boundary	Reduction in emissions due to clearing of vegetation whilst also reducing the quantity of lost carbon from removing such vegetation.
Vegetation offsets	Replanting the disturbed vegetation and/or planting new vegetation will offset the lost carbon from the vegetation removal.
Use warm mix asphalt instead of hot mix asphalt	Reduces greenhouse gas generation during manufacturing.
Solar generated power for site offices / general areas	Reduction in fuel combustion from generating electricity to site offices / general areas.
Inclusion of laydown electric car charging bays	Promotes the use of automated/electric vehicles within the boundary to reduce vehicle emissions.
Solar generated power for streetlights	Reduction in emissions from powering streetlights within project boundary.

In addition to these opportunities, a separate investigation was conducted to identify additional opportunities utilising renewable energy that could be implemented into the project to reduce emissions. The following renewable energy opportunities were identified as site suitable:

- Solar powered noise walls
- Wind-solar hybrid lighting

- Solar powered PSP shading
- Traffic wind turbine
- Energy harvesting compression plates.

The feasibility of these opportunities will be investigated further within the Design Phase and the opportunities to be implemented (if any) will be confirmed.

## Materials & Recycling

A Resource Efficiency Strategy (RES) has been prepared based on investigations undertaken for resource use and waste. This strategy outlines the relevant approvals required for the project, resource efficiency goals, resource estimation, key risks and opportunities relating to resource efficiency and potential partnerships that could be beneficial for later stages of the project to assist in achieving the resource efficiency targets.

A multi-disciplinary team was involved in the identification of goal areas and opportunities for resource efficiency as part of a sustainability workshop in January 2020. The overarching priority resource efficiency goals that were identified include:

- Developing a design that minimises project waste outputs.
- Optimisation of materials required throughout the project life cycle.
- Utilisation of existing local resources.
- Promoting responsible material sourcing (i.e. minimising haulage of material, sourcing materials from near-by sites).
- Consideration of various drainage designs with regards to pollution control.
- Ensuring a balance of cut and fill material.
- Catering for the future traffic demands.
- Consideration of alternative barrier systems.

Potential hurdles with pursuing these identified opportunities include increased cost, resource availability and complying with current standards.

While all these goals provide opportunity to incorporate sustainable design outcomes within the Project, it is important to ensure that these solutions do not impact the accessibility for maintenance or the longevity of the asset.

Opportunities to minimise both project inputs and outputs have been investigated to assist in achieving the resource efficiency goals set for the project during Construction and Operation. The feasibility of these opportunities will be investigated further during the Design Phase and the Resource Efficiency Strategy will be updated accordingly.

## Emissions

Methods to reduce other adverse impacts including noise, air quality, vibration, light spill and dust mitigation will be investigated further during the Design stage and included within the Environmental Management Plan. The emissions listed are all considered within the project's Risk and Opportunity Register that details potential treatment options that have been investigated throughout the Planning Phase.

## Acid Sulphate Soils

A desktop risk assessment that identifies acid sulfate soil (ASS) risks has been undertaken and a high acid

sulphate soil disturbance risk is expected at the Welshpool Road intersection from this study. Field screening tests were conducted on 30 soil samples for assessment of presence of ASS, with all laboratory results included in the Geotechnical Factual and Interpretive Report. Management actions for delivery will be documented in a project Environmental Management Plan or Acid Sulfate Soil Management Plan (ASSMP) if appropriate.

### **Contamination**

A high-level desktop assessment that identifies any potential contamination from agricultural or industrial sources within and/or immediately around the alignment (within 200m) was conducted. One contaminated site was identified at former Lot 123, 20 Hardey East Road, Wattle Grove, located at the intersection of Fennell Cres cul de sac and The Promenade. The site was historically used as a poultry farm and has the potential to cause contamination. The site was also reported in 2006 for visual identification of asbestos containing fragments in the surface soils at the site and fragments of asbestos cement sheeting were found in surrounding areas. The possibility that fragments of asbestos cement sheeting are also present beneath the roadways should be considered. Additional localised hazard sources that may be relevant for this site include:

- Cow tips
- Asbestos from older structures
- Agricultural runoff
- Contaminated building materials or stockpiles.

# Economic Aspects

## Economic Context

Tonkin Highway is a 44 km north-south highway and partial freeway in Perth. It is part of the National Land Transport Network and links Perth Airport and Kewdale with the city's north-eastern and south-eastern suburbs. The northern terminus is at Reid Highway in Malaga, and the southern terminus is at Thomas Road in Oakford. It connects to Reid Highway and Roe Highway to form part of a critical freight and passenger vehicle orbital around the Perth metro area.

Western Australia's Land Use Planning and Transport Strategies recognise Tonkin Highway as a critical component of the Metropolitan Road Freight Network. As part of this network, Tonkin Highway facilitates movements to and from commercial / industrial zones in Canning Vale, Kewdale, Ashfield, Malaga and Balcatta, and resource sector locations in the north of the State as well as to the Perth and Jandakot Airports. These areas combine to generate some of the highest levels of employment in the Perth metropolitan area. Tonkin Highway therefore serves a critical purpose in facilitating the movement of freight and commuter traffic. It is also a designated Hide Wide Load (HWL) corridor and requires 10 m vertical x 10m width clearance.

Key stakeholders to engage during the project phases were identified within the Tonkin Highway Corridor: Roe Highway to Kelvin Road Community and Stakeholder Engagement Strategy and include:

- Friends of Woodlupine Brook
- Woodlupine Living Stream initiative
- City of Kalamunda Environmental Advisory Committee
- Nature Reserves Preservation Group
- Urban Bushland Council
- Conservation Council of WA
- Hartfield Park Sporting and Recreation Clubs (via City of Kalamunda)
- Wattle Grove Residents Association (including Future Wattle Grove)
- Whadjuk Working Group
- Local and Federal Members of Parliament
- City of Kalamunda Ward councillors

## Key Economic Outcomes

The *Tonkin Grade Separations: Hale Road to Kelvin Road* project is part of the Tonkin Highway Transformation that sets out to:

- Improve safety.
- Ease congestion and reduce capacity pressures on the wider metro transport network.
- Improve access to Maddington Kenwick Strategic Employment Area (MKSEA).
- Improve PSP connectivity for cyclists and pedestrians
- Enable full realisation of benefits of existing infrastructure associated with Gateway and Northlink and future infrastructure and planning initiatives (e.g. Westport and MKSEA).

## Options Assessment

A rigorous Multi Criteria Analysis (MCA) process was undertaken to determine the most appropriate interchange configurations for the Hale Road, Welshpool Road and Kelvin Road intersections. Various interchange types were considered, with each assessed to outline the environmental, social, economic, network performance and road safety impacts. As a result, the following configurations resulted in the optimal sustainable outcome for each intersection:

- Hale Road – Half diamond interchange
- Welshpool Road – Diamond interchange
- Kelvin Road – Compact diamond interchange.

## Sustainable Procurement

Sustainable procurement for the *Tonkin Grade Separations: Hale Road to Kelvin Road* project must be conducted to ensure optimal positive environmental, social and economic impacts over a project's lifecycle. A Procurement Strategy will be produced for the project that prioritises sourcing local materials and engaging with the local workforce to enhance the economic prosperity within the local community and the Perth Metropolitan region.

## Resilience

Careful consideration and planning have been conducted to ensure this project contributes towards the resilience of the Perth Metropolitan Region. Through a workshop with key stakeholders (including Main Roads, Arup, the City of Gosnells and the City of Kalamunda), a range of acute shocks and chronic stresses that are likely to impact the functionality of the asset and its service to the community were identified. Interdependent physical assets and services within and surrounding the project extents that are likely to be impacted if the asset lost functionality or operate at minimal capacity were also identified. Treatment options to manage the impact of these shocks and stresses to Tonkin Highway and the interdependent assets were discussed in detail. A Resilience Plan has been produced to capture the outcomes of the resilience study/work and desktop assessment.

## Climate Change Assessments

Climate change and natural hazard risks have been assessed for the *Tonkin Grade Separations: Hale Road to Kelvin Road* project using the AS 5334 process for risk assessment. A high-level review of historically recorded climate change and natural hazard events for the project site has been undertaken. In addition, the inherent levels of tolerance to climate change and natural hazards have been investigated. During a workshop with key stakeholders (including Local Government representatives), asset components within the project (e.g. pavement, structures, lighting, etc.) were assessed based on the impact that specific natural hazards would have on the asset in 2020, 2030 and 2090 using current climate projections. It is noted that ideally this assessment should be done to cover the full design life of the asset (100 years). However, current climate projections only present up to the year 2090 estimates. The natural hazards considered were:

- Heatwave
- Drought
- Bushfire
- Flooding
- Storm

- Cyclones.

Treatment options to mitigate these risks to the asset components were discussed during the workshop and later summarised within the Climate and Natural Hazards Risk Register. A Climate Change Assessment Report has been produced that details the assessment outlined above and identifies treatment options to mitigate the impact of climate change on the infrastructure asset.

# Social Aspects

## Social Context

The communities surrounding the project area are extremely important stakeholders and create the urban fabric in which the project sits. The surrounding communities are impacted by the changes to the roadway daily, as they live next to, commute on, and move across the highway between suburbs. To date, 1618 stakeholders have been engaged on the project through the Main Roads Customer Relationship Management system, with 153 stakeholder enquiries received.

The residential communities immediately surrounding the project include the suburbs of:

- Forrestfield (City of Kalamunda),
- Wattle Grove (City of Kalamunda), and
- Orange Grove (City of Gosnells).

The community facilities and characteristics of the above suburbs are described in detail in the Urban Landscape Design Framework (ULDF).

The suburbs of Maddington (City of Gosnells) and Kenwick (City of Gosnells) are located to the west of the project area but are less affected by the road as these areas are generally zoned industrial, with the residential areas located further away from the project area to the west of the alignment.

While the additional communities in the hills areas (e.g. Lesmurdie and Kalamunda) are not directly adjacent, it is recognised that members of these communities are commuters through the area.

Within these surrounding communities are the following community facilities:

- Primary schools (Woodlupine, Forrestfield, Wattle Grove and Orange Grove Primary)
- Hartfield Park Recreation Centre/Area (home of Forrestfield Football Club, Netball and Basketball courts, Forrestfield District Bowling Club, Kalamunda Rugby Union Club, Kalamunda Rugby League Club and Hartfield Golf Club)
- Forrestfield Youth Club
- Discovery Caravan Park
- Shopping Centres (Forrestfield and Wattle Grove)
- Jehovah's Witness Hall
- Syrian Church
- Veteran Car Club
- Various local businesses.

These facilities have been and will continue to be considered within the Planning Phase to minimise impacts throughout the project's lifecycle.

There are several registered Aboriginal heritage sites within or directly adjacent to the project extents, including Maamba Reserve (which Tonkin Highway runs through). This required consultation with representatives of the Whadjuk Noongar Representatives as part of an Aboriginal Ethnographic and Archaeological Site Identification Survey under the *Aboriginal Heritage Act* to verify extents of registered sites. Efforts will be made to remove or mitigate impacts to these sites. Any confirmed impacts on these registered sites will require a Section 18 approval prior to disturbing during construction.

The expected social outcomes from the project are:



- Improvement of the safety and functionality of the corridor.
- Alleviates congestion and reductions in travel time.
- Create urban design solutions for the project that enhance the project for the surrounding communities.
- Provide structural forms and ULD solutions that connect communities that are separated by the highway.
- Provide connectivity for public transport within the project interchanges, including adjust facilities outside the project area where required.
- Provide safe cycling and pedestrian routes for the communities across the alignment so facilities can be easily accessed.
- Provide hard and soft landscaping.
- Mitigate/minimise impacts to Aboriginal Heritage sites.



Figure 3: Surrounding Communities

### Community and Stakeholder Engagement

Stakeholder consultation is being undertaken in accordance with Main Roads’ Tonkin Grade Separations Communications and Stakeholder Engagement Strategy (CSES). Ongoing communications and engagement will take place as the project progresses through design and construction phases of this project. The CSES is an evolving document designed to underpin communication and engagement of the Proposal through development and delivery, incorporating stakeholder interests via ongoing review or feedback and activities.

The Communications and Stakeholder Engagement Strategy provides:

- A comprehensive project narrative and messaging around key issues to ensure consistency of communication,
- Identification of key issues, risks and challenges requiring careful management, along with proposed mitigation methods, and
- A summary of Main Roads’ approach to communication and engagement and the tools and methods utilised to maximise community input.

Early engagement with both local governments identified potential risks, issues, and communication and engagement recommendations.

The City of Gosnells and City of Kalamunda identified potential communication and engagement opportunities. Early identification with local plans and census data has informed communication methods. Minimising environmental impacts and involving local environmental groups is a focus of the project.

Continuing to liaise with both Cities will ensure that the City of Kalamunda's Community Health and Wellbeing Plan (2018-2022) and the City of Gosnells Strategic Community Plan 2018-2028 are complemented by the relevant proposed project plans.

### **Negotiables and Non-Negotiables**

Through consultation with the project team, negotiable and non-negotiable issues have been identified. This was done in consideration of the project scope and will be provided to stakeholders to inform where stakeholder input may be considered. Non-negotiables are the elements of a planning process or project that cannot change - e.g. legislative and safety requirements. Negotiables are those that are not bound by legislative or statutory requirements - e.g. landscaping and alignment of shared paths.

The CSES is integrated into the project. The CSES includes:

- Project 'negotiables' and 'non-negotiables' developed with the project team.
- The identification of potential social, environmental and economic impacts of a project and considers if and how engagement activities associated with these assessments, and any related regulatory approvals, need to be incorporated and supported.
- A requirement that engagement is a regular agenda item on relevant project meetings. Topics include progress on engagement activities, summary of input received, any issues identified etc.

Project leads and other team members are involved in the development of the Stakeholder Engagement Plan. The CSES action plan outlines that the following tools will be used for targeted engagement and communication activities:

- MySay digital consultation
- Stakeholder workshops
- Drop-in sessions
- Doorknocking
- Ongoing monitoring of feedback.

### **Key Issues**

- Flyover only at Hale Road: Ultimate plan (developed in 1980s) had south facing ramps only at Hale Road but this was reviewed and removed due to the close proximity of the proposed Welshpool Road interchange (approximately 1.5 km) and associated weaving issues for Tonkin Highway traffic.

- Proposed design of Hale Road access to Tonkin and the perceived traffic delays travelling through Roe Highway signals
- Impact of flyover on businesses and others (Discovery Parks accommodation; Hartfield Park Recreation Centre sporting clubs etc)
- Hale Road perceived by some members of the community as a rat run; other local traffic impacts (Lewis Road)
- Reduction in full turn movements at Welshpool / Bruce / Brook Roads
- Drainage discharge to waterways and quality impacts (especially Greater Brixton St Wetlands south west of the Tonkin / Welshpool intersection);
- Clearing and associated habitat concerns.
- Kelvin Road access change on affected residents
- Veteran Car Club of WA – property/ driveway impact
- Hale Road improvements: timeline and MRWA design impacts (underground power, streetscape works)
- Limited understanding of project footprint means people don't know why some aspects can't be achieved
- Impact on Grasstrees Australia licence to use road reserve
- Impact on current PSP/Pedestrian access at Brentwood Road (south of Welshpool Road – possibly informal)
- Environmental impact at Tonkin/Kelvin
- Visual amenity impact: Between Kelvin and Welshpool there are a number of hobby farms / lifestyle properties that have bush as a buffer to Tonkin. Horse properties etc. Removal of existing vegetation that currently provides visual softening of the highway in special rural type areas
- Yule Brook impacts on existing water flows (runs underneath Tonkin and also back towards Welshpool Road)
- Tonkin Welshpool: Lack of understanding about how high noise walls will be and resultant visual impact

## **Community and Engagement Methodology**

### ***Communication and Stakeholder Engagement Goals***

- Generate awareness of and support (where possible) for the project, including its core objectives.
- Understand stakeholder and community aspirations, opportunities, issues and concerns associated with the project.
- Obtain community buy-in to the design and construction methodology, ensuring where possible that the project addresses community concerns, and if not, explain why not.
- Minimise impact of works.
- Build strong, ongoing relationships with the local community, generating trust and confidence in Main Roads and our vision for the road network.

### **Communication and Stakeholder Engagement Guiding Principles**

- Early and ongoing engagement with the community through multiple channels, ensuring a customer-centric approach.
- Undertake a proactive approach to community management – identifying areas of community interest and reaching out to interested parties.
- Set clear parameters and expectations around areas of community influence (collaborate vs inform).
- Undertake clear and consistent communication based on approved messages that reflect the objectives of the State Government, Main Roads and other key stakeholders.

## **Roles and responsibilities**

All Communication and materials require approval from Main Roads. All external communications is approved by the Main Roads Project Director and Strategic Communications representative in advance of distribution.

A Project Stakeholder Management and Communication Responsibility Matrix has been included in Appendix 5.

All enquiries and complaints relating to the project are recorded in Main Roads' Connect database system. The early identification and resolution of issues will be a critical component of the CSE program.

## **Addressing Community Concerns**

All enquiries and complaints relating to the project will be recorded in Main Roads' Connect database system. The early identification and resolution of issues will be a critical component of the CSES program.

This will be supported by an internal communications process that will:

- ensure all project team members are aware of the importance of identifying emerging issues and communicating the details of such to the Communications and Stakeholder Engagement Manager for actioning
- maintain CSE on the agenda at key internal team meetings (such as the monthly Project Management Team meeting).

All engagement activities are provided to the Project Manager to be incorporated into the Project's schedule. A range of communication activities will be implemented to heighten awareness and facilitate two-way dialogue during project development, pre-construction and construction stages. These are included within appendix 6.

## **Monitoring and evaluation**

Feedback will be sought from stakeholders to ascertain / measure their sentiment towards the engagement program and whether their input has influenced the project.

Feedback will be sought as follows:

- Attendance numbers at stakeholder and community events will be recorded and feedback forms will be available to capture sentiment or suggestions for improvement.
- Analysis of enquiries / complaints – trending of issues or identify areas where additional attention or activity is required to address public concern or need for more detailed information
- Number of ministerials received (data to be provided by Main Roads' Strategic Communications Specialist).
- 

The process used to collect feedback must be:

- Undertaken at least once, towards the end of the Project Development phase (or more regularly, if appropriate).

- Designed and implemented by a person with at least seven years' experience in stakeholder engagement and qualifications/training in a relevant discipline (i.e. stakeholder engagement, social science, planning or communications).
- The size, nature and representation of the stakeholders from which feedback is sought **must** be determined and justified. Feedback will be sought from each stakeholder group identified in Section 1 of this strategy.

### Urban Landscape and Green Infrastructure

An Urban and Landscape Design Framework (ULDF) has been developed for the project. The ULDF report details the key planning and design features of the infrastructure and its surrounds. The report includes a site analysis, the project's vision, principles and objectives and the project's identified options and strategies. Objectives within the report relate to:

- Integration with existing infrastructure and development
- Urban form
- Transport
- Recreation centres and local businesses
- Landscape and Green Infrastructure.

A Green Infrastructure Plan (GIP) has been produced and identifies the ecosystem services to be provided by the project's green infrastructure. The GIP forms a basis for establishing targets and identifies green infrastructure opportunities which are to provide a coordinated approach to protect, enhance and integrate green infrastructure elements within the project area and support the overall sustainability outcomes. The aim of the GIP is to set out:

- A vision for implementing and/or incorporating green infrastructure functions.
- The principles and objectives to be achieved.
- The resources and methods needed to meet those objectives.

It is noted that Green Infrastructure (Gre-1) is a new category included in version 2 of the ISCA tool, meaning the *Tonkin Grade Separations: Hale Road to Kelvin Road* project is likely one of the first infrastructure projects of this kind to be specifically committing to protection and enhancement of Green Infrastructure assets within a project area.

# Appendix 1 - List of Interfacing Projects:

Projects that are directly interfacing and/or near by the project extents of the *Tonkin Grade Separations: Hale Road to Kelvin Road* project are:

- Tonkin Gap (Main Roads),
- Tonkin Extension Stage 3 (Main Roads),
- Tonkin Highway Grade Separations – Ranford Road, Armadale Road and Forrest Road (Main Roads)
- Roe Highway and Kalamunda Road Interchange (Main Roads),
- Maddington Kenwick Strategic Employment Area – MKSEA (City of Gosnells),
- City of Gosnells Depot (City of Gosnells),
- Kalamunda Community Centre (City of Kalamunda), and
- Wattle Grove South (Crystal Brook) (City of Kalamunda).

# Appendix 2 - Protected fauna and flora species and habitat

The following threatened (T) and priority (P) flora species have been identified within the project boundary:

- *Andersonia Gracilis* (T)
- *Banksia Mimica* (T)
- *Byblis Gigantea* (P)
- *Conospermum Undulatum* (T)
- *Isopogon Autumnalis* (P)
- *Jacksonia Gracillima* (P)
- *Johnsonia Pubescens* Subsp. *Cygnorum* (P)
- *Lasiopetalum Bracteatum* (P)
- *Styphelia Filifolia* (P)
- *Tetraria Australiensis* (T)
- *Verticordia Lindleyi* Subsp. *Lindleyi* (P)

The following conservation significant fauna species and their habitats have been identified within the project boundary:

- Forest Red-tailed Black Cockatoo (vulnerable species)
- Carnaby's Cockatoo (endangered species)
- Baudin's Cockatoo (endangered species)

# Appendix 3 – List of Stakeholders to the project

The following key stakeholders have been identified in relation to the project:

- Department of Agriculture, Water and Environment (DAWE),
- Department of Biodiversity, Conservation and Attractions (DBCA),
- Department of Water and Environmental Regulation (DWER),
- Department of Planning, Lands and Heritage (DPLH),
- Public Transport Authority,
- Department of Education,
- City of Kalamunda and City of Gosnells,
- Local residents,
- Local businesses (including chambers of commerce),
- Community interest groups including:
  - Beeliar Professors,
  - Cycling groups,
  - Friends of Brixton St Wetlands,
  - Friends of Woodlupine Living Stream,
  - Hartfield Park Recreation Centre,
  - Kalamunda Environmental Advisory Committee,
  - Nature Reserves Preservation Group,
  - Veteran Car Club of WA, and
  - Wildflower Society of Western Australia.
- Freight and logistics industry,
- All road users,
- South West Aboriginal Land & Sea Council and the Whadjuk Working Party,
- Emergency Services, and
- Utility Providers.



## Appendix 4 – Glossary of Terms

Table 3: Glossary of Terms

Term	Definition
AHD	Australian Height Datum
AS 5334	Australian Standard: Climate Change Adaptation for Settlements and Infrastructure - A Risk Based Approach
ASS	Acid Sulfate Soils
ASSMP	Acid Sulfate Soil Management Plan
Credits	Each IS v2.0 credit has up to three levels of achievement and addresses a specific aspect of sustainability performance within the category.
CSES	Community and Stakeholder Engagement Strategy
EPA	Environmental Protection Authority
GHG	Greenhouse Gas
GIP	Green Infrastructure Plan
GRI	Global Reporting Initiatives
HWL	Hide Wide Load
IS	Infrastructure Sustainability
ISAP	Infrastructure Sustainability Accredited Professional
ISC	Infrastructure Sustainability Council (formally Infrastructure Sustainability Council of Australia (ISCA))
IS Materiality Assessment	Process to identify the priority sustainability topics that should be included in the sustainability plan, strategy and targets
IS Rating Scheme	Infrastructure Sustainability (IS) rating scheme comprises: <ul style="list-style-type: none"> <li>• The IS rating tools for Planning, Design and As Built and Operation</li> <li>• ISCA education and training programs (including the IS Accredited Professional program)</li> <li>• Working and Advisory Groups</li> </ul>
IS Rating Scorecard	Infrastructure Sustainability Rating Scorecard used to summarize approach to achieving credit requirements.
IS Themes	Governance: context, leadership and management, sustainable procurement, resilience and innovation Economic: options assessment, business case and benefits Environmental: Energy and carbon, green infrastructure, environmental impacts, resource efficiency, water and ecology Social: stakeholder engagement, legacy, heritage and workforce sustainability
IS Rating Tool	The IS rating tool is the tangible part of the scheme, used to undertake assessment. It comprises: <ul style="list-style-type: none"> <li>• The IS Technical Manual</li> <li>• IS rating tool scorecard (IS Scorecard)</li> </ul>

	<ul style="list-style-type: none"> <li>IS Materials Calculator – a calculator used to measure performance in the Materials category (Design &amp; As-Built and Operations only)</li> </ul>
IS v2.0 Planning Technical Manual	Technical manual that details all the requirements for ISCA credits to be achieved to obtain a Planning Rating.
LGA	Local Government Authority
MCA	Multi Criteria Analysis
MRWA	Main Roads Western Australia
PSP	Principal Shared Path
RES	Resource Efficiency Strategy
SLK	Straight Line Kilometre
SMP	Sustainability Management Plan
SP	Sustainable Procurement
TEC	Threatened Ecological Community
TGS	Tonkin Grade Separations
ULDF	Urban Landscape Design Framework
UN SDG	United Nations Sustainability Development Goals

# Appendix – 5 Stakeholder Management and Communication responsibility matrix

Project leads and other team members must be assigned some ownership of, and involvement in, the development of the stakeholder engagement strategy, as well as having roles and responsibilities for implementation.

Project Development	
<b>Project Director:</b> David Goodram	<b>Project Manager:</b> Robert Evans
<b>Communication Specialist:</b> Sonia Beros/ Cass De Wind (from February 2021)	<b>Stakeholder Engagement Consultant:</b> Carolyn Walker
Project Procurement and Delivery Stage	
<b>Project Director:</b>	<b>Project Manager:</b>
<b>Communication Specialist:</b>	<b>Stakeholder Engagement Consultant:</b> Carolyn Walker
<b>Legend</b> CRG – Community Reference Group EDID – Executive Director Infrastructure Directorate M&GBM – Ministerial and Government Business Manager SEC – Stakeholder Engagement Consultant (MRWA Panel) CS – Communications Specialist, Main Roads SE(Alliance) Con – Stakeholder Engagement (Alliance) Partner PQs – Parliamentary Questions	<b>Reporting Structure</b> <pre>                 graph TD                     PD[Project Director] --- PM[Project Manager]                     PM --- CS[Communication Specialist]                     PM --- SEC[Stakeholder Engagement Consultant / Alliance]                     PD -.- CS                     PD -.- SEC                 </pre>

## Responsibility Matrix

	Key Role					
	SE Con CONTRACTOR	SEC PANEL MEMBER	CS COMMS	PM	PD	EDID
<b>Development Stage: Until November 2018</b>						
<b>Stakeholder Engagement</b>						
• Stakeholder Engagement Plan		Develop	Review	Review	Approve	
• CRG		Establish & manage	Review & support	Review & support	Approve	
• Customer liaison (incl. CONNECT)		Respond				

• Customer liaison report		Develop	Review			
• Presentations		Develop	Review	Review	Approve	
• Display material/collateral		Develop	Review	Review	Approve	
<b>Ministerial Business</b>						
• MP Liaison			Lead with MBU			
• Correspondence			Draft	Review	Approve	Endorse
• Briefing Notes			Draft	Review	Approve	Endorse
• PQs			Draft	Review	Approve	Endorse
• Enquiries			M&GBM go direct to relevant officer and CC others			
<b>Media / Promotional</b>						
• Statements *			Draft	Review	Approve	
• Enquiries			Draft	Review	Approve	
• Events		Support & attend	Draft	Review & attend	Approve & attend	
• Interviews			Prepare		Spokesperson	
• Advertising		Draft	Review & organise	Review	Approve	
<b>Operational Communications</b>						
• Letters to residents		Draft	Review	Approve		
• Whole of project newsletters*		Draft	Review	Review	Approve	
• Construction update newsletters		Draft	Review	Approve		
<b>Digital Communications</b>						
• Web Updates		Assist & draft	Review	Approve		
• Social Media			Draft	Approve		
<b>Other</b>						
• Project Meetings		Attend	As required	Attend	Attend	
<b>Procurement: November 2018-Late 2019</b>						
<b>Stakeholder Engagement</b>						
• Stakeholder Engagement Plan		Update	Review			
• CRG		Manage	Review & support	Attend	Attend	
• Customer liaison (incl. CONNECT)		Respond				
• Customer liaison report		Develop	Review			
• Presentations		Develop	Review	Review	Approve	
• Display material/collateral		Develop	Review	Review	Approve	
<b>Ministerial Business</b>						
• MP Liaison			Lead with MBU			
• Correspondence			Draft	Review	Approve	Endorse
• Briefing Notes			Draft	Review	Approve	Endorse
• PQs			Draft	Review	Approve	Endorse
• Enquiries			M&GBM go direct to relevant officer and CC others			
<b>Media / Promotional</b>						
• Statements *			Draft	Review	Approve	
• Enquiries			Draft	Review	Approve	
• Events		Support & attend	Draft	Review & attend	Approve & attend	
• Interviews			Prepare		Spokesperson	
• Advertising		Draft	Review & organise	Review	Approve	

<b>Operational Communications</b>						
• Letters to residents		Draft	Review	Approve		
• Whole of project newsletters*			Draft	Review	Approve	
• Construction update newsletters		Draft	Review	Approve		
<b>Digital Communications</b>						
• Web Updates		Develop	Review	Approve		
• Social Media			Draft	Approve		
<b>Other</b>						
• Project Meetings		Attend	As required	Attend	Attend	
<b>Project Delivery Stage (post award): Late 2019 –2021</b>						
<b>Transition / Handover</b>		Lead				
<b>Stakeholder Engagement</b>			Short term engagement as required (strategic counsel; transition of key relationships)			
• Stakeholder Engagement Plan	Develop			Review	Review	Approve
• CRG	Manage			Review & support	Attend	Attend
• Customer liaison (incl. CONNECT)	Respond					
• Customer liaison report	Develop			Review		
• Presentations	Develop			Review	Review	Approve
• Display material/collateral	Develop			Review	Review	Approve
<b>Ministerial Business</b>						
• MP Liaison				Lead with MBU		
• Correspondence				Draft	Assist draft	Approve
• Briefing Notes				Draft	Assist draft	Approve
• PQs				Draft	Assist draft	Approve
• Enquiries				M&GBM go direct to relevant officer and CC others		
<b>Media / Promotional</b>						
• Statements *				Draft	Review	Approve
• Enquiries				Draft	Review	Approve
• Events	Support & attend			Draft	Review & attend	Approve & attend
• Interviews				Prepare		Spokesperson
• Advertising *	Draft			Review & organise	Review	Approve
<b>Operational Communications</b>						
• Letters to residents	Draft			Review	Review	Approve
• Project Update Newsletters	Draft			Review	Review	Approve
• Construction Updates	Draft			Review	Review	Approve
• Road Works Updates	Draft			Approve		
<b>Digital Communications</b>						
• Web Updates	Assist & draft			Review	Approve	
• Social Media				Draft	Approve	
<b>Other</b>						
• Project Meetings	Attend			As required	Attend	Attend

# Appendix – 6 Communication channel and elements

Channel	Elements
Communication	
Political documentation	<ul style="list-style-type: none"> <li>• Ministerial Briefing notes</li> <li>• Federal and State Ministerial media statements</li> </ul>
Signage	<ul style="list-style-type: none"> <li>• Static project signage</li> </ul>
Internal communication	<ul style="list-style-type: none"> <li>• Project Team meetings</li> </ul>
Email / Click Dimensions	<ul style="list-style-type: none"> <li>• All stakeholders from CONNECT database</li> <li>• Invitation to register contact details on the website to populate database</li> <li>• Community members requesting information (via phone or email) added to database</li> <li>• This forms basis for dissemination of roadworks information</li> </ul>
Direct mail to catchment area	<ul style="list-style-type: none"> <li>• Project area for communication with nearby residents (i.e. 500m to 1km either side of interchange)</li> <li>• Delivery of newsletters / updates / notice of works distributed to this area</li> <li>• May be communicated to surrounding suburbs as necessary</li> </ul>
Publications	<ul style="list-style-type: none"> <li>• Project Overviews and Newsletters</li> <li>• Frequently Asked Questions</li> <li>• Fact Sheets</li> <li>• Surveys (e.g. property condition)</li> </ul>
Media	<ul style="list-style-type: none"> <li>• Traffic Operations Centre</li> <li>• Main Roads website</li> <li>• Ministerial media statements</li> <li>• Newspaper advertising</li> <li>• Urgent construction communications</li> </ul>
Website	<ul style="list-style-type: none"> <li>• Main Roads dedicated project page</li> <li>• Main Roads website News</li> <li>• PTA website</li> <li>• Contractor will provide regular updates and information about traffic and commuter impacts.</li> </ul>
Social media	<ul style="list-style-type: none"> <li>• Facebook</li> <li>• You Tube</li> <li>• Twitter</li> <li>• Instagram</li> <li>• LinkedIn</li> </ul>
Third party information	<ul style="list-style-type: none"> <li>• Local Government Authority newsletters and websites/social media</li> </ul>

channels	
FAQs	<ul style="list-style-type: none"> <li>• Provided to the Customer Information Centre (CIC) and Traffic Operations Centre (TOC) prior to the public announcement, unusual congestion or traffic impacts.</li> <li>• Follow up information circulated if required.</li> </ul>
<b>Engagement</b>	
Briefings / meetings / displays	<ul style="list-style-type: none"> <li>• Minister’s Office</li> <li>• State Government Agencies</li> <li>• Local Members</li> <li>• Local Government</li> <li>• Special interest stakeholder briefings</li> <li>• Local landowners</li> <li>• Alignment walks (site walks)</li> <li>• Shopping Centre information displays</li> </ul>
Community Liaison Group	<ul style="list-style-type: none"> <li>• Key stakeholders and residents located within the vicinity of the project area</li> <li>• Generate an understanding of the project</li> <li>• Allow input from them into some elements of project design prior to construction (noise walls, landscaping)</li> </ul>
Technical Working Group	<ul style="list-style-type: none"> <li>• Identify any unforeseen issues with the design</li> </ul>
Events	<ul style="list-style-type: none"> <li>• Project commencement - ground breaking ceremonies</li> <li>• Project completion - opening ceremonies</li> <li>• Funding announcements</li> <li>• Major milestone announcements</li> </ul>
Public contact	<ul style="list-style-type: none"> <li>• Telephone (138 138)</li> <li>• Email</li> <li>• Face to face</li> </ul>
Partnering workshop	<ul style="list-style-type: none"> <li>• Project Team and the successful contractor go through all project requirements, risks and commitments to ensure community and stakeholder engagement is at the forefront of the project</li> </ul>
Digital	<ul style="list-style-type: none"> <li>• MySay Transport communications and stakeholder engagement platform</li> </ul>