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Leach Welshpool Alliance: Project Sustainability Report 2021

Prepared by

Leach Welshpool Alliance

This annual report covers the period from 1st July 2020 – 30th June 2021.

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About this Report

This report has been prepared by the Leach Welshpool Alliance (LWA) delivering the Leach Highway and Welshpool Road Interchange Project (herein 'the Project') on behalf of Main Roads Western Australia (MRWA). This report forms part of MRWA's annual sustainability reporting which is integrated into its Annual Report. The report content is prepared in accordance with Global Reporting Initiative (GRI) principals. Material topics reported in this report have been determined through a materiality process that adheres to the Infrastructure Sustainability Council of Australia (ISCA) Infrastructure Sustainability (IS) v2.0 Design and As Built Ratings.

Introduction

Leach Highway is part of Perth's Principal Road Freight Network serving key commercial activity centres such as Perth Airport and the Kewdale Freight Terminal. The highway intersects with Welshpool Road, a major east-west arterial route that runs through the Welshpool industrial area and is adjacent to the Kewdale Freight Terminal.

The Project will significantly improve safety at this critical junction in Perth's transport network. The intersection is ranked as Perth's second most congested with at least 50,000 vehicles travelling through each weekday. It also ranks as the city's most dangerous intersection, ranked number 1 for crash frequency with 224 crashes recorded between 2015 and 2019, of which 204 were rear-end crashes.

The Project is being delivered by LWA, comprising local contractors Georgiou Group Pty Ltd, BG&E Pty Ltd, Golder Associates Pty Ltd and MRWA. The contract was awarded in December 2020 and extensive planning and project development has been underway for several months. LWA has completed development activities including concept design, traffic modelling, environmental assessments, and community and stakeholder consultation.

The project area is dominated by commercial land use, with a variety of businesses and industries including commercial storage facilities, a grain processing and feed plant, a service station and vehicle servicing station, storage and rental facilities access. This upgrade will provide much-needed relief to this thoroughfare and increase accessibility to surrounding businesses.

This Project is supporting sustainable development in Western Australia (WA), and moreover supporting United Nations (UN) Sustainable Development Goal (SDG) 8 – Decent Work and Economic Growth. This Project is one of many infrastructure projects in Western Australia fast-tracked to support the WA economy and local jobs. LWA is creating a sustainable pipeline of skilled people to support ongoing infrastructure delivery and economic development. The Project is committed to supporting small to medium-sized local subcontractors, enhancing WA businesses capacity and capabilities, and a target of 10 percent prequalified lower-level subcontractors with MRWA.

The importance of building infrastructure that is resilient and supports sustainable development is recognised by LWA. The Project has implemented the ISCA ISv2.0 Design and As Built Rating framework, and will undertake a self-assessment to be verified by MRWA. This alongside a number of sustainability initiatives will allow LWA to elevate Project operations to support shared environmental, social and economic value.

Highlights

The Project highlights have been aligned to 5 of the 17 UN SDGs as described below in Figure 1.

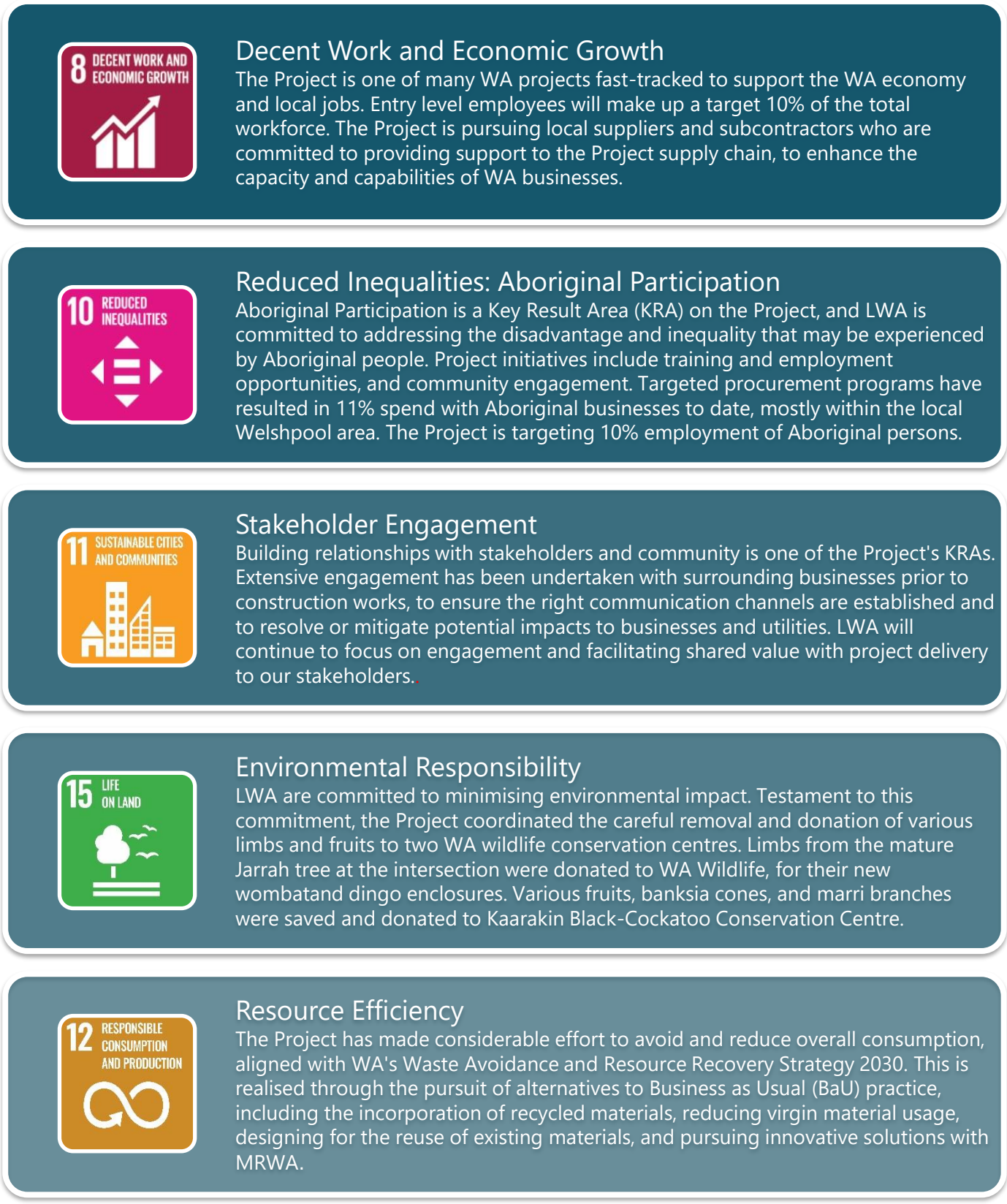

Figure 1: Project Sustainability Highlights

Overview

The Project is being delivered by LWA, made up of MRWA and local contractors BG&E, Georgiou Group and Golder Associates. This major infrastructure project has been jointly funded by the Federal ($68 million) and State ($46.5 million) governments.

The Project will make a substantial contribution to the WA economy, supporting Aboriginal participation, engaging local businesses, enhancing WA business capability and capacity, and supporting training and development of infrastructure employees. Construction is expected to extend over 15 months (with completion in late 2022) and will support more than 600 jobs.

The primary objectives of the Project are to provide efficient and safe road access for all road users and to provide road infrastructure that supports economic and regional development. The Project will:

- Reduce congestion.
- Improve connectivity.
- Increase traffic capacity.
- Reduce the risk of death and serious injury at the Leach Highway/Welshpool Road Intersection.
- Support key activity centres and employment nodes.
- Enhance productivity and economic growth.

Sustainability is integrated throughout the design and construction, with focal pursuit of the LWA KRAs. The Project's KRAs are:

- supporting local jobs;
- increasing Aboriginal participation;
- building relationships with stakeholders and community; and
- implementing strategic capability development.

LWA's commitment to sustainability includes the integration of the ISCA ISv2.0 Design and As Built Rating Scheme, with a target score of 40. Material issues include connectivity, resource efficiency, water quality, clearing footprint and stakeholder engagement. Material issues are further detailed in the fore-mentioned sections.

The Project is in the heart of the Welshpool commercial area, surrounded by a variety of businesses and industries, and a small residential area to the south. The highway intersects with Welshpool Road, a major east-west arterial route which runs through the industrial area and is adjacent to the Kewdale Freight Terminal. Community and stakeholder engagement is a vital component of the Project and extensive consultation has been undertaken to inform of potential impacts during development and seek design input where appropriate. Key stakeholders on the Project include the Public Transport Authority (PTA) and the Local Government Authority, City of Canning. A full list of stakeholders engaged can be found in Appendix 3.

Leach Highway will consist of two traffic lanes in each direction including:

- Construction of a roundabout at the new intersection of Leach Highway and Welshpool Road.
- New bridge carrying Leach Highway over Welshpool Road and new roundabout.
- A Public Shared Path (PSP) along Leach Highway from Sevenoaks Street to Orrong Road.

- Construction of a new duplicated bridge along Leach Highway over the Armadale Rail line, to the east of the existing bridge.
- Upgrade of anti-throw screen on the existing bridge over the rail line.
- Rearrangement of vehicle lanes including a new shared path on the west side of the existing bridge over the rail line.

For further project-related information, please visit https://www.mainroads.wa.gov.au/projects-initiatives/projects/metropolitan/Leach-Highway-Welshpool-Road-Interchange/

Image 1: Map of Leach Highway / Welshpool Road intersection

Overall approach to Sustainability

LWA will apply infrastructure sustainability practices throughout the project lifecycle, aligned with MRWA's Sustainability Policy. Sustainability culture has been embedded within the LWA, driven top-down by senior management. This has been pivotal to the realisation of sustainability opportunities and challenging BAU outcomes in development.

A Sustainability Management Plan (SMP) has been developed to manage all sustainability targets and implement a quadruple bottom line approach within key processes, including procurement, environmental management, social aspects, and materials. Each target is being driven by the Project management team and Sustainability Lead, with nominated personnel within LWA responsible for coordinating outcomes.

The Project is implementing the ISCA ISv2.0 Design and As Built Rating Scheme into project development, completed as a self-assessment and verified by MRWA. The Project is on track to achieve the Project target minimum score of 40, including the pursuit of the following targets:

- Reduce water usage across the infrastructure lifecycle by at least 5% (IS credit – Wat-1).
- Reduce energy and carbon emissions across the infrastructure lifecycle by at least 5% (IS credit – Ene-1).
- Reduce life cycle environmental impacts across the infrastructure lifecycle by at least 5% (IS credit - Rso-6).
- Have a pronounced and long-lasting positive impact on the environment and society (IS credit – Leg-1).
- Develop and implement a resource efficiency strategy which aligns with the WA Waste Avoidance Strategy 2030, including consideration of avoiding the use of single use plastics, recycled asphalt and crumbed recycled rubber (IS credit - Rso-1).
- Adopt best practice urban and landscape design (IS credit – Con-2).
- Identify, assess and treat risks associated with Climate Change and natural hazards (IS credit – Res-2).
- Undertake robust options assessment, incorporating quadruple bottom line sustainability values in decision making (IS credit – Ecn-1).
- Develop and implement infrastructure sustainability practices throughout the project lifecycle that will help achieve the UNSDGs by 2030 (IS credit – Lea-1).
- Assess and mitigate sustainability risks and opportunities (IS credit – Lea-2).
- Contribute to sustainability knowledge sharing within LWA, parent organisations, industry and community (IS credit – Lea-3).

A Lifecycle Assessment is being used on the Project to model whole-of-life energy, water, waste and materials consumption, and particularly to identify reductions achieved as a result of sustainability management. This assessment will be completed at the end of design and construction phases on the Project, utilising a 'base case' to set the baseline for all improvements to be measured against. The base case is submitted to MRWA for verification.

Material Sustainability Issues

LWA undertook a materiality assessment with external stakeholders including the City of Canning and Public Transport Authority (PTA), to determine the most important (material) sustainability issues on the Project. The process scored the UN SDGs based on the significance of impact and importance to stakeholders, as represented in Figure 2 below. This information was utilised to determine materiality ratings (as per Table 1) within the ISCA ISv2.0 Design and As Built Rating

Framework, taking into consideration the Project context, key stakeholders and targets nominated by MRWA.

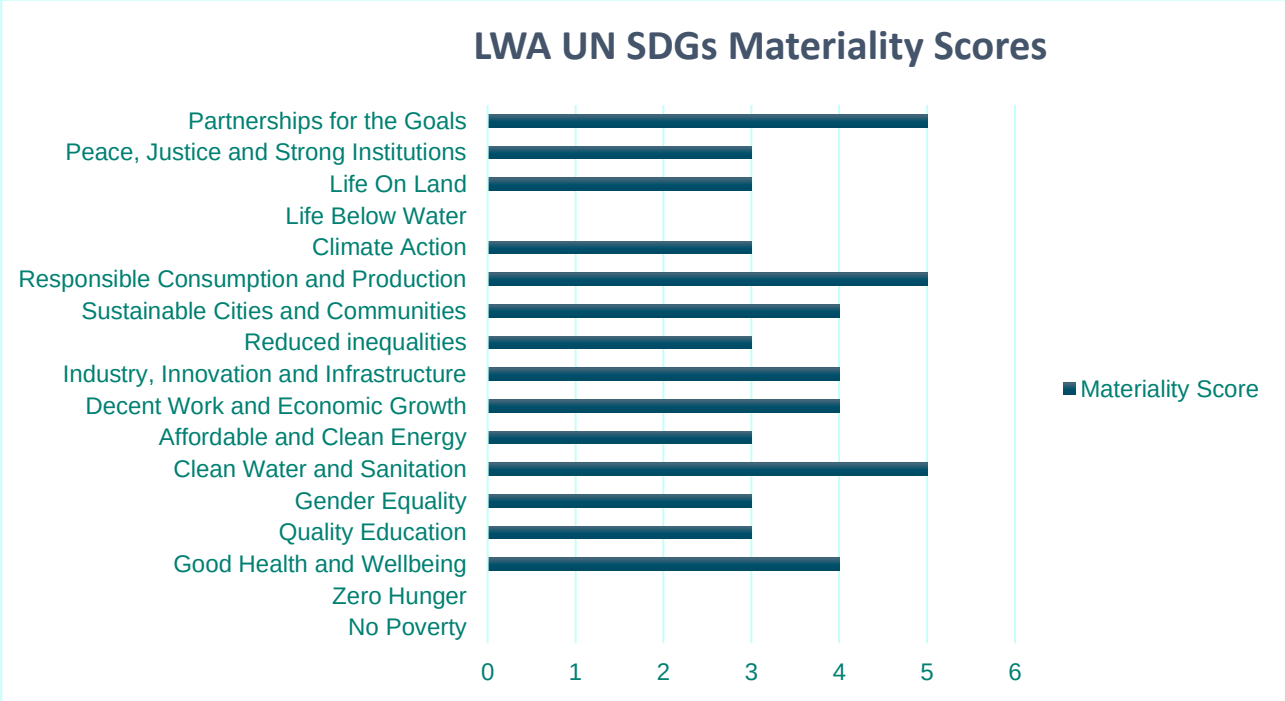

Figure 2 – UN SDG Materiality Scores

Table 1 – Material (High – Very High) ISCA ISv2.0 Sustainability Credits

ISCA ISv2.0 Credit	Aim	Materiality
Con-2 Urban and Landscape Design Context	To reward the adoption of best practice urban and landscape design	High
Lea-1 Sustainability Strategy	To reward the development and implementation of an approach to apply infrastructure sustainability practices throughout the project life cycle that will help achieve the UNSDGs by 2030	High
Lea-2 Risks and Opportunities	To reward the assessment and mitigation/realization of sustainability risks and opportunities	High
Lea-3 Knowledge Sharing	To reward sustainability knowledge sharing initiatives	High
Res-2 Climate and Natural Hazards	To reward the assessment and treatment of risks associated with climate change and natural hazards	Very High
Ecn-1 Options Assessment	To reward robust options assessment in promoting positive sustainability outcomes	High
Ene-1 Energy and Carbon Reduction	To reward the reduction of energy use and carbon emissions across the infrastructure lifecycle	Very High
Env-1 Receiving Water Quality	To reward the management of impacts on local receiving water quality	Very High
Env-2 Noise	To reward the management of noise impacts	Very High
Env-3 Vibration	To reward management of vibration impacts	Very High

Env-4 Air Quality	To reward management of air quality impacts	Very High
Env-5 Light Pollution	To reward prevention of light spill.	Very High
Rso-1 Resource Strategy Development	To reward the development and implementation of resource efficiency strategy and associated action plans	Very High
Rso-2 Contamination Remediation Material	To reward the consideration of sustainable contamination and remediation strategy within a broader resource efficiency strategy on a project-specific basis	High
Rso-4 Resource Recovery	To reward the sustainable management of output resources (waste)	High
Rso-5 Adaptability	To reward design and planning for deconstruction, disassembly and adaptability of infrastructure in the future	High
Rso-6 Material Lifecycle Impact Measure and Management	To reward design and practice that reduces lifecycle environmental impacts of materials	Very High
Rso-7 Sustainability Labelled Products	To reward procurement of materials that have sustainability labels or are from sustainable supply chains	High
Sta-1 Stakeholder Engagement Strategy Development	To reward the development of a well-considered and strategic approach to stakeholder engagement	Very High
Sta-2 Stakeholder Engagement Strategy Implementation	To reward implementation and review of the stakeholder engagement strategy and use of stakeholder input	Very High
Leg-1 Leaving a Lasting Legacy	Leaving a lasting legacy beyond the purpose of the project	High
Her-1 Heritage Assessment and Monitoring	Protecting and enhancing tangible and non tangible heritage including both Aboriginal and non-Aboriginal heritage	High
Wfs-3 Workforce Culture and Wellbeing	A constructive and positive workplace for all people employed including sub-contractors	Very High

Environmental Aspects Performance

At a glance

Table 2 – Environmental aspects at a glance

Aspect	Year to 30 June	Total for Project
Forecast Clearing (ha) – vegetated areas	4.57	4.57
Clearing permit allowance (ha) – vegetated areas	11.26	11.26
Actual clearing to date (ha) – vegetated areas	4.57	4.57
Rehabilitation/revegetation planned (ha)	TBC	TBC
Actual rehabilitation/revegetation to date (ha)	TBC	TBC
Environmental offset via Monetary contribution actual ($)	TBC	TBC
Total Water Consumption to date (kL)^	6,613	6,613
Total water licence allowance (kL)^	100,000	100,000
Total GHG emissions (scope 1 & 2) to date (t CO_2-e)`	77.9 t CO_2-e	77.9 t CO_2-e
Total energy consumption to date (mj)	191,354.18	191,354.18
Total quantity of recycled content used in project (t)*	4,693	4,693
Total imported materials used in project (t)	90,189	90,189
Total waste generated by project (t)	2,070	2,070

** reported CRC only.*
^reported construction water usage only.
`reported electricity and fuel consumption only.

Environmental context

The Project is located approximately 6.5 km south-east of the Perth central business district, situated within the City of Canning. The Project encompasses the intersection of Leach Highway and Welshpool Road.

The Project Area is approximately 26.2 hectares (ha). There were six vegetation types identified in the Project Area totalling 11.26 ha. These included:

- Two native vegetation types: one woodland (0.27 ha) and one shrubland (0.02 ha)
- Two revegetated areas: one shrubland (3.06 ha) and one woodland (6.63 ha)
- One revegetated landscaped area (1.12 ha) and
- One planted area of garden species (0.16 ha).

The two native vegetation types, represented by small, isolated pockets, (Image 2) are considered to be original remnant vegetation, and derivatives of the original woodlands or shrublands that might have occurred in the area (Barrett, A & Carey, M., 2019).

Perth receives moderate though highly seasonal, winter based rainfall. Summers are generally hot and dry, lasting from December to March, with February generally being the hottest month of the year. Winters are cool and wet, giving Perth a hot-summer Mediterranean climate.

The Project is situated on the Bassendean Dune and Pinjarra Systems (Government of Western Australia, 2000).

There are no significant surface water bodies in close enough proximity to the Project with the Swan River being situated approximately 4.7km to the north west of the Project.

The Project will not impact on any flora or vegetation of conservation significance as confirmed within the Preliminary Clearing Impact Assessment Report (Leach Highway and Welshpool Road Grade Separation: Preliminary Clearing Impact Assessment and Vegetation Management Plan, Main Roads Western Australia 2020). The majority of the vegetated area within the Project footprint is revegetation, with only 0.29 ha considered native remnant vegetation. The condition of vegetation within the Project Area is mostly 'Degraded – Completely Degraded' (Leach Highway and Welshpool Road Grade Separation: Preliminary Clearing Impact Assessment and Vegetation Management Plan, Main Roads Western Australia 2020).

The Project is unlikely to provide habitat for any conservation significant fauna species. Due to the disturbed nature of the Project Area, the site supports a highly modified habitat preferred by opportunistic fauna that are considered common and widespread.

Image 2: Remnant native vegetation at intersection

Environmental Management

The Project has developed an Environmental Management Plan (EMP), which sets out to describe how environmental aspects are to be managed so the Project Area and those engaged onsite will:

- comply with Georgiou Policy, MRWA, legal and other obligations;
- minimise the impacts on the environment; and
- achieve the company, client and site objectives and targets.

The EMP is written in accordance with Georgiou's health, safety and environment management system which is third party certified to AS/NZS ISO 14001.

Performance against all HSE objectives are monitored, as a minimum, monthly at site meetings.

A risk management approach has been used to determine the severity and likelihood of an activity's impact on the environment and to prioritise its significance. This process considers potential regulatory and legal risks as well as taking into consideration the concerns of community and other key stakeholders.

LWA has also developed an 'Environmental Management Commitment Statement' which defines how the Project will endeavour to keep impacts generated by construction activities to a minimum, while delivering an asset that can be utilised and enjoyed by future generations.

Table 3: Project Key Environmental Legal Obligations

Legislation / Other requirement	How will the Alliance comply with the requirement
Environment Protection and Biodiversity Conservation Act 1999 (C)	This EMP implements processes to minimise impact on the Environment
Environmental Protection Act 1986 (WA)	This EMP implements processes to minimise impact on the Environment
Environmental Protection Regulations 1987 (WA)	This EMP implements processes to minimise impact on the Environment
Environmental Protection (Unauthorised Discharges) Regulations 2004 (WA)	Waste Management Environmental Sub Plan
Aboriginal Heritage Act 1972 (WA)	Culture & Heritage Management Environmental Sub Plan
Aboriginal Heritage Regulations 1974 (WA)	Culture & Heritage Management Environmental Sub Plan
Biodiversity Conservation Act 2016	Flora & Fauna Management Environmental Sub Plan
Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (WA)	Adherence to the clearing permit (CPS 818/15)
Rights in Water and Irrigation Act 1914 (RIWI Act) (WA)	Water Management Environmental Sub Plan
Environmental Protection (Controlled Waste) Regulations 2004 (WA)	Waste Management Environmental Sub Plan
Environmental Protection (Noise) Regulations 1997 (WA)	Noise & Vibration Management Environmental Sub Plan
Aboriginal Heritage Act 1972 (WA) consent to disturb	Appendix 6

Water Management

Water Management is outlined within the projects formally approved EMP, within a Water Management Sub Plan. The Sub Plan reiterates the need for water to be conserved, reused and recycled where reasonably practical. The Project is pursuing the reduction of at least 5% construction and operational water consumption from business-as-usual practices.

The Project has identified areas of construction which can utilise the use of non-potable water sources (groundwater). The project area does not fall within a Public Drinking Water Source Area (DWER, 2019), but does fall within a proclaimed Perth Groundwater Area (DOE, 2004). As such, the Project has been issued a License to Construct and Alter a Well and License to Take Water by the Department of Water and Environmental Regulation (DWER). Part of this licensing involves tracking the usage of groundwater in accordance with the annual entitlement to take water under the License to Take Water. All water usage is metered as per DWER licensing requirements and reported monthly.

Groundwater bores locations across the project area have been carefully selected to be utilised for the maximum duration of time due to scheduling of works without needing to unnecessarily redrill bores. Spreading the draw allocation across multiple bores will also ensure draw down is spread out and not localised to one area.

In the warmer months, it is anticipated that synthetic ground covers (DustX or similar) will be applied to open parcels of land to best minimise the impacts of dust caused by construction activities and to save water, where practicably possible.

Table 4: Water usage

Source	Year to 30 June	Total for Project
Water purchased from the scheme in litres	326,000	326,000
Water pumped from bores in litres	6,656,000	6,656,000
Water pumped from rivers, lakes or harvested in litres	0	0
Recycled or waste water use (typically from another industry) in litres	0	0

Carbon Emissions & Energy

LWA is pursuing the reduction of greenhouse gas emissions and energy consumption over the whole of life of the Project. The Project is targeting a minimum 5% reduction of energy consumption across design, construction and operational life. A Life Cycle Model will be undertaken to model energy consumption and reductions realised by the Project.

Major sources of greenhouse gas emissions and energy consumption have been reviewed by the Project to determine opportunities to minimise usage and achieve this 5% target. The Project has changed the luminaires as part of the permanent lighting design from HPS to LED, proven to be a more efficient source of lighting that significantly reduces greenhouse gas emissions. The Project has also considered other opportunities such as solar temporary lighting towers, hybrid plant and machinery, and motion sensor lighting.

The following will be monitored over design and construction:

- Electricity consumption of site offices;
- Fuel consumption of plant and machinery; and
- Use of hybrid/electric plant and machinery.

Table 5: Energy usage

Source	Year to 30 June	Total for Project
Energy usage by source in mega joules		
From fuel use (mj)	585.41	585.41
From electricity (mj)	190,768.77	190,768.77
Energy saved (mj)	0*	0*

**based on timing of report the Project is unable to provide this figure – reliant on the Life Cycle Model being finalised for end of design phase.*

Materials & Recycling

LWA appreciates the importance of managing resources efficiently and reducing Construction & Demolition (C&D) waste aligned with State intended outcomes. Our vision is aligned with the WA Waste Strategy Vision, that being "To manage all works sustainably, supporting a low-waste, circular economy in which human health and the environment are protected from the impacts of waste" (Waste Authority, 2019). All aspects of design and construction have applied the waste avoidance model and we have pursued the reuse of materials where applicable with the SWTC.

Aligned with this commitment, we have investigated opportunities to target the State Government's focus materials. The following opportunities have been implemented:

- use of Crushed Recycled Concrete; product derived from WA C&D Waste;
- use of up to 25% Reclaimed Asphalt Pavement; product derived from WA C&D Waste;
- installing an office waste system that separates general, co-mingle and organic waste to recover greater quantities; and
- planned trial of noise wall built with plastic waste.

All materials and outputs on the Project are controlled through management mechanisms identified within the Project's EMP. To facilitate the efficient management of resources throughout the Project design and construction stages, a Resource Efficiency Action Plan (REAP) has been developed, specifying circular economy opportunities and the waste avoidance process for the management of inputs and outputs.

Table 6: Material and Waste Statistics

Imported Materials	**Year to 30 June**	**Total for Project**
Sand (t)	97,821.94	97,821.94
Gravel (t)	0	0
Clay (t)	0	0
Limestone (including crushed) (t)	0	0
Crushed Rock (t)	0	0
Crusher Dust (t)	0	0
Aggregate (t)	0	0
Asphalt (t)	66	66
Concrete (t)	0	0
Steel (t)	0	0
Precast concrete (t)	0	0
Emulsion (t)	0	0
Bitumen cutter (t)	0	0
Bitumen (t)	0	0
Glass (t)	0	0
Paint (t)	0	0
Topsoil (t)	0	0
Mulch (t)	0	0
CRC (t)	4,602.56	4,602.56

Waste to Landfill	**Year to 30 June**	**Total for Project**
Unsuitable material (t)	0	0
Existing seal / asphalt (t)	0	0
Roadside litter / municipal solid waste (t)	0	0

Commercial / industrial waste (t)	0	0
Green waste (t)	2,056.02	2,056.02
Concrete / kerbing (t)	0	0
Construction / demolition waste (t)	0	0
Contaminated material (t)	0	0
Asbestos (t)	0	0
General/Green Waste (t)	13.77	13.77
Other (t)	0	0
Waste Recycled		
Sand (t)	11,714.52	11,714.52
Road base (t)	0	0
Asphalt (t)	0	0
Timber (t)	0	0
General waste (site office / roadside litter) (t)	11.65	11.65
Steel (t)	0	0
Concrete (t)	184.6	184.6
Green waste / mulch (t)	251.1	251.1
Plastic (t)	0	0
Paper & Cardboard (t)	2.12	2.12

Imported recycled content	**Year to 30 June**	**Total for Project**
Sand (t)	11,714.52	11,714.52
Road Base (t)	0	0
Crumbed Rubber (t)	0	0
Recycled asphalt (t)	0	0
Steel (t)	0	0
Concrete (t)	0	0
Crushed Glass / beads	0	0
Limestone (t)	0	0
Plastic (t)	0	0
Green waste / mulch (t)	0	0
Topsoil (t)	0	0
Unsuitable material (t)	0	0
CRC (t)	4,602.56	4,602.56

Air Quality

Dust on the Project is monitored in real time through a permanent dust monitor. The dust monitoring location is selected based on its proximity to sensitive receptors and likelihood of these receptors to be impacted by construction generated dust. The following control measures will be implemented on site to reduce the likelihood of dust generation from construction activities:

- wind fencing around the site or between the site and local residences;
- application of water/dust suppressant via water carts;
- hydro mulching to stabilise soils;
- physical application of ground cover;
- cessation of works in adverse weather conditions;
- restricted speed limits on site;
- rescheduling dust generating activities to avoid adverse weather conditions;

- communicating dust risk and mitigation measures to staff prior to commencing work;
- the use of street-sweepers to ensure that adjoining public roads are kept free of construction debris and dust; and
- damp down or cover loads being transported to or from the Project where wind-blown material may cause nuisance or become a traffic hazard.

The Project will ensure regular maintenance of plant and equipment for optimum performance will be undertaken to keep emissions to a minimum and increase plant productivity. Vehicles and equipment must be fitted with appropriate emission control equipment and routinely maintained. Plant should be switched off when not in use, wherever practicable. Air emissions from plant, vehicles and equipment should be visually monitored throughout construction phase of the Project. These measures will ensure plant and vehicle emissions are kept to a minimum and ensure local air quality is not unnecessarily impacted on.

Vibration

The Project footprint is adjoined by a wide range of sensitive receptors, as identified in Appendix 7. These sensitive receptors include (not limited to);

- residential dwellings;
- commercial properties such as the historic Milne Feeds site, Bega Dairy, local printing businesses;
- WA Museum Collections and Research Centre;
- Bentley Villas (rehab centre); and
- Bentley Health Service.

The Project has collected pre-construction vibration data to use as a baseline as well as completed testing on likely equipment to be used during construction as to best gauge vibration levels and manage vibration throughout the construction phase of the Project.

Vibration monitoring on the Project is largely being conducted by a specialist third part consultant to ensure meaningful data is collected throughout the lifetime of the Project. Vibration monitoring equipment being used on the Project is capable of sending real time data and alerts to select key project personnel. This allows the Project team to respond the increased vibration levels in a reasonable timeframe and effectively manage vibration generated by construction activities.

Clearing

The Project will comply with the conditions of clearing permit number CPS 818/15. An audit against compliance with CPS 818/15 will be conducted within two months of the completion of clearing as outlined within the Project's Audit Schedule.

The total area required to be cleared through the lifetime of the Project will be kept to a minimum through design to ensure the maximum amount of remnant native vegetation will be retained. Clearing has and will be broken into smaller parcels of clearing to be walked with an Environmental representative and the clearing subcontractor. This will ensure any vegetation in the boundary of clearing will be maintained where possible, and pruning of limbs will be utilised instead of total clearing of potential mature trees.

At the completion of clearing, the area is finalised and submitted to MRWA as per licensing conditions.

Case Study

The Project has coordinated the careful deconstruction and transport of various limbs, fruits and branches of vegetation to two wildlife centres in WA.

The limbs of two mature Jarrah and Marri trees at the main intersection were provided with care to WA Wildlife – Native Animal Rehabilitation Centre (Image 3). These limbs are now part of new enclosures for the dingoes and 'Winnie the Wombat'. Other large barky sections were provided to kangaroos within the centre. Numerous branches were carefully removed where visible green gum nuts could be salvaged from Marri trees and carefully transported to Kaarakin Black Cockatoo Conservation Centre (Image 4). Banksia cones and Cape Lilac fruits were also salvaged were possible for and donated to Kaarakin Black Cockatoo Conservation Centre.

Image 3: Limbs being delivered on site at WA Wildlife

Image 4: Banksias marked on site to have cones saved

Economic Aspects Performance

At a glance

Table 7: Economic aspects at a glance

Economic Aspect	Year to 30 June	Total for Project
Funding	$25M	$25M
No. of vehicles per day	50,000/day	50,000/day
Travel Time Saving	Nil	Nil
Increase of vehicle capacity	Nil	Nil
Increase in cycling and pedestrian facilities (i.e. increase in PSP length)	Nil	Nil
Workforce and Supply Chain		
Number of people employed by supply chain at various stages of project	1,409	1,409
Total number of vendors engaged	140	140
Total number of Aboriginal Enterprise	11	11
Total number of Disability Enterprise	Nil	Nil
Buy Local Spend (to date)*	$3.2M	$3.2M

*within 20km of the Project.

Economic context

Leach Highway and Welshpool Road is currently ranked as the worst intersection across Western Australia for crash frequency. The Project will improve safety and congestion for the 50,000 vehicles using this thoroughfare daily.

Jointly funded by the Federal and Western Australian governments, the Project is anticipated to create up to 600 jobs for the duration of the Project. LWA is committed to supporting jobs with project delivery, our industry employment targets include achieving at least 10 percent of the total work hours undertaken by Qualifying Entry Level Employees, and at least 10 percent total work hours undertaken by Aboriginal Persons. Further information is detailed below under Workforce Development.

In line with the Western Australian Building Local Industry Policy; Buy Local Policy 2020 and Western Australian Industry Participation Strategy (WAIPS); LWA is committed to providing Western Australian companies with full, fair and reasonable opportunities to tender for work. The Project endeavours to increase supply opportunities to local industry, and work towards building the capacity and capability of the construction industry within Western Australia, through active support of subcontractors and suppliers, and increasing apprenticeship, training and job opportunities.

The surrounding area to the intersection is predominantly commercial and industrial, experiencing heavily congested traffic during peak periods. Leach Highway is part of Perth's Principal Road Freight Network, serving Perth Airport and Kewdale Freight Terminal. The Project's roundabout design will improve traffic flow and capacity of this critical network.

The Project has engaged all potentially affected businesses within the area and endeavours to work with these businesses to mitigate any temporary traffic disruptions to access. A full list of

stakeholders affected by the Project is listed in Appendix 3.

Surrounded by businesses, the greater Welshpool/Kewdale area is an employment hub expected to continually increase in the volume of road users in the future. The City of Canning undertook research concluding car ownership levels in the City will continue to increase (City of Canning Integrated Transport Strategy, 2015), and the private car remains the predominant mode of transport to work. The Leach Highway and Welshpool Road intersection previously had no public shared path, limiting access within the area for pedestrians and cyclists. LWA will provide an improved journey for employees, including increased opportunities for walking and cycling through the area.

Image 5: Aerial view of north of Leach Highway / Welshpool Road Intersection, demonstrating the large number of surrounding industrial businesses

Key Economic Outcomes

Current forecasts indicate traffic volumes will increase to approximately 80,000 vehicles by year 2036 and 95,000 by year 2041. The Project provides urgent safety improvements, reducing risks for road users, and overall congestion and delay within the area.

The Perth Freight Network will benefit from a safer and more efficient network, able to withstand the projected traffic volume increase. More specifically, the project will support the east-west freight link connecting Fremantle with the Kewdale and Welshpool Industrial area.

The Project is one of 24 Western Australian transport projects fast-tracked to support the Western Australian economy and local jobs following the impacts of COVID-19. This is expected to result in up to 600 jobs, supporting jobs is one of LWA's KRAs.

As a foundation Alliance Principle, LWA will support economic development in WA through supporting local, small to medium sized businesses. LWA is committed to enhancing WA industry capability, capacity and opportunity throughout delivery.

Sustainable Procurement and Buy local

LWA aspires to provide WA companies with full, fair and reasonable opportunities to tender for work. The Project is actively seeking opportunities to allow smaller local contracting companies and businesses to support its operations and enhance local business capabilities and capacities. This will be achieved through ongoing support of subcontractors and suppliers throughout engagement, providing mentoring and training where applicable to local businesses.

In line with the WA Government Buy Local Policy 2020, the Project will:

- Maximise opportunities for local, small and medium enterprise (SME) WA businesses (including Aboriginal businesses) to participate in the Works.
- Provide full, fair and reasonable opportunity through transparency and accountability in the tendering and award process.
- Buy local to support development of WA Industry, particularly in regional WA.
- Support WA businesses to remain competitive in the changing economic conditions.
- Support development of industry workforce through fair employment opportunities and training.

An example of Buy Local being implemented on the Project is the ongoing procurement of two Aboriginal owned businesses close by; County Man Safety and Jatu Clothing. Ownership and locality was priority in the decision making process and the Project acquire all PPE between the two businesses.

The Project has developed an Industry Sustainability Plan to manage industry sustainability objectives during delivery. Objectives include:

- Maximising engagement with WA located companies and suppliers.
- Awarding separate packages of works to a range of lower level pre-qualified contractors who are prequalified with MRWA, to an aggregate value of 10% of the Direct Cost Target.
- Assisting Westforce Construction to progress to Bridge Category 2 Level.
- Aboriginal Employment – at least 10% of the total work hours are undertaken by Aboriginal Persons.
- Aboriginal Business Procurement – works and/or services to a value of at least 2% of the contract sum are undertaken by Aboriginal Businesses.
- Increasing training and employment opportunities in WA.

As outlined above LWA is committed to engaging with local businesses in line with the WA Buy Local Policy. Throughout the duration of procurement LWA will track the proximity of these businesses to the Project, to communicate our performance against this buy local objective. At this stage, LWA has spent $3.2M with local suppliers within 20km of the Project, making up approximately 26% of total spend.

As at June 2021, Aboriginal businesses spend reached 5.3% and 2.9% accumulative. The Project has thus surpassed the initial 2% performance target within the first few months and will continue to engage Aboriginal businesses.

One of these Aboriginal businesses includes Sista Girl, which recently opened in April 2020. The Project recently awarded Sista Girl the Project sign contract, as an opportunity for them to demonstrate their quality of work and capabilities. LWA's supply contract to Sista Girl is the highest Aboriginal spend to date on the Project, as the main provider of signs and prints.

Climate Change Assessments

The Alliance appreciates the importance of building sustainable road networks, which allow for projected climatic conditions. LWA undertook a Climate Change Risk Workshop during early stages of design. The workshop assessed the direct and indirect climate and natural hazard risks on the Project, alongside proposed treatment options.

This risk assessment is informed by best available climate change analysis which addresses the region in which the asset is located and the asset's forecast useful life. Guided by a suitably qualified professional, participants were given an overview of climate variables, temperatures and variable conditions to consider within the assessment, including an introduction to the two projections being applied within Representative Concentration Pathway (RCP) 8.5, 2030 and 2090. Within multidisciplinary groups of 4-5 people, participants evaluated the risks and proposed treatment options to various elements of the Project.

Attendees included representatives from key stakeholders City of Canning and Perth Transport Authority, and members of LWA including MRWA, Georgiou Group, Golder Associates and BG&E. The workshop also included MRWA Manager Network Management and Sustainability Advisor of the Office of Major Transport Infrastructure Delivery (OMTID). To enable the adequate evaluation of risks, representatives from within LWA were from different expertise areas including senior project management representation, environment, community, design management and construction engineering.

Image 6: Working group team discussing risks specific to pavements.

Sustainable Transport

Network connectivity was identified as a material issue during the preliminary materiality assessment undertaken during planning, by MRWA. LWA has developed a design which will improve connectivity for road users, pedestrians and cyclists. Connectivity improvements specifically related to pedestrians and cyclists have been considered within multiple sustainability workshops during design, with the intention to:

- increase pedestrian and cyclist connectivity;
- maximise cycle ability within project boundaries; and
- explore opportunities to improve connectivity for cycling beyond project boundaries.

Technology and Innovation

The Project has encouraged innovation throughout design development, supporting the LWA team in considering alternatives to BaU. The Project team is currently investigating the application of a number of opportunities within the technology and innovation space, including:

- Trial of noise walls built with recycled plastic waste material. This trial will support the reuse of plastic waste within industry and challenge the BaU use of raw concrete material.
- Use of screw piles for temporary wall support propping instead of conventional strip footing or concrete blocks. Screw piles can then be re-used, saving copious amounts of material.
- Use of recycled cold mix asphalt for temporary road alignments – not yet trialled on a highway environment in Western Australia.

Equity and Distributional Impacts

The surrounding businesses, road users and community of the Leach Highway and Welshpool Road Intersection are expected to accrue greater accessibility, reduced risk of crashes, reduced travel time and more efficient transport choices as a result of the Project. The Project team undertakes extensive consultation with surrounding businesses to mitigate impacts such as confined access, barrier effects, and externalities such as noise and vibration.

Enhancing Aboriginal participation in the workforce and procurement aims to provide positive impacts for Aboriginal personnel. Given the size of the Project the 2% procurement target of total cost will support a large number of Aboriginal businesses. The 10% target of total work hours is estimated to accumulate up to 21,000 hours.

Social Aspects Performance

At a glance

Table 8: Social aspects at a glance

Social Aspect	Year to 30 June	Total for Project
Community Satisfaction to Project	90% supportive of the planned project*	90% supportive of the planned project*
No. of Stakeholders engaged with during project development	45	45
No. of complaints	8	8
No. of legacy commitments	1	1
No. of heritage sites in project vicinity	0	0
No. of heritage sites significantly impacted	0	0
No. of traffic safety incidents within project boundary	0	0
% of women in workforce^	12%	12%
% Aboriginal in workforce^	7%	7%
LTIFR	0	0
No. of hours training during project	0	0
No. of development employees and apprentices on the project	1	1
No. of employees (FTEs) sourced from local community	0	0

*Reported from MRWA Leach Highway Welshpool Road Interchange Community Survey - October 2020
^excludes Alliance Board Members

Social context

The most significant concern to surrounding stakeholders has been identified as the potential for business disruption because of:

- Construction impacts, in particular: vibration -such as effects on calibrated equipment, and possible damage to process equipment – and dust – such as effects on process equipment.
- Traffic management, in particular avoidance of the area because of congestion; and reduced/changed access to businesses.

Prior to the commencement of construction, LWA embarked on a substantial stakeholder engagement program to understand potential impacts and devise solutions. This early consultation enabled stakeholder input to be incorporated into project design and construction planning.

Fortnightly meetings with the City of Canning guided preferences from the early stages of the Project. This resulted in outcomes such as the inclusion of a footpath within the design on Ewing Street, rather than a retaining wall. It also provided an improved understanding of connectivity impacts for road users, cyclists, and pedestrians within the local network. As a result of their stated preference for a PSP to be extended from Sevenoaks Street to Albany Highway, LWA submitted a design for approval to the Department of Transport (pending).

Following consultation with the Welshpool Trade Centre (WTC), a roundabout was proposed and accepted. This removed the need to acquire 41 parking bays at the WTC. It also saved acquisition of a petrol station further east on Welshpool Road, resulting in a saving of approximately $4 million.

Design elements incorporated as a result of stakeholder engagement includes:

- adjusting fences on bordering retaining walls to suit individual property holder use and needs, such as security and privacy;
- the decision to use concrete to construct the principal shared path outside the WA Museum Collections and Research Centre due to the sensitivity to vibration of the items stored within the centre.

Engagement with individual businesses enabled LWA to plan construction activities for least impact, for example:

- planning works around business use of the site, such as Bega Dairy being busiest at night while CTI Xpress across the road didn't work weekends;
- Western Power connection works being conducted on a Sunday to avoid disruption to 35 businesses;
- understanding the needs of oversized over mass vehicles within the temporary and permanent road alignments; and
- minimising road closures on Ewing Street which caused difficulties for heavy vehicle movements.

Compaction equipment trials were undertaken to address the potential impacts of vibration and determine optimal operating levels to minimise disruptions to neighbouring properties. Specialist structural and process assessments were also arranged for at risk properties, Milne Feeds and Bega Dairy, particularly concerned about effects of vibration.

While there are no heritage listed sites within the Project boundaries, Milne Feeds on the south west corner of the Leach Highway Welshpool Road intersection has been operating at the site for more than 100 years. Some structures at the site are sensitive due to age. As a result, a heritage survey was undertaken of historic masonry structures.

The Project is surrounded by a diverse range of manufacturing, fabrication, service and retail businesses. This diversity is evident in the following sensitive businesses and services adjacent to the project boundary:

- WA Museum Collections and Research Centre.
- Bega Dairy.
- Milne Feeds (stockfeeds manufacture).
- Dolphin Scuba.
- Just In Scales (calibration of weighing equipment).
- Wesbar Vanquip (disability vehicle modifications).
- Bye Performance (high performance vehicle modifications).
- Minuteman Press.
- Bentley Hospital.
- Bentley Villas (mental health rehabilitation).
- Welshpool Trade Centre (17 retail and trade units).

Each nearby stakeholder has individual needs and sensitivities to potential construction impacts. A small pocket of residences are located at the southern end of the Project works area.

Image 7: View from time-lapse camera at the Leach Highway and Welshpool Road Intersection

Community & Stakeholder Engagement

As a key result area for the project, Relationships with Stakeholders and the Community was primed with two key performance indicators:

- Escalation of construction related complaints to MRWA.
- Community sentiment of project relationship.

To measure community sentiment and to follow on from the client's initial survey in October 2020, the first construction project survey is scheduled September 2021.

LWA undertook a campaign to engage with all adjacent and affected stakeholders prior to construction commencing. This enabled an understanding of stakeholder needs and preferences, to inform design and construction planning, and established lines of communication to ensure responsiveness during construction. Main issues of concern related to effects on business, vibration, dust, traffic movements, and traffic congestion. In addition to the design and construction responses provided above, significant engagement was undertaken with businesses concerned about the effect on trade. Solutions included:

- a colour Visual Messaging Board being purchased to promote nearby businesses and business access;
- providing options to the WTC for pedestrian access to the centre; and
- working with the local government authority to manage other impacts including:
  - Gaining approval for a "keep clear" line marking at the WTC access to assist exiting vehicles.
  - Influencing the City of Canning to start the process of gazetting a laneway at the rear of 117-119 Welshpool Road traders to facilitate future vehicle access to the traders.

The initial campaign included multiple group sessions for stakeholder groups with similar issues, such as retail centres, streets and engagement types such as those properties requiring retaining walls – as well as one on one briefings for individual stakeholders with discrete issues.

Road Safety

Every road user has a risk of accident and injury or death. Following the Traffic Rules whilst driving within or outside the worksite can make a significant positive impact on other road users, on foot and/or behind the steering wheel. The Project undertakes third party pre-audit and post-audits of Traffic Guidance Schemes, which specify implementation of temporary traffic management. This ensures robust controls are in place and maximises safety for all road users.

The Project notifies road users of potential upcoming traffic disturbances through the use of VMS board displays. The Project aims to give as much notice as possible to the general public and displays VMS notices well ahead of planned out of hours works.

Traffic Management

A Traffic Management Plan (TMP) was developed prior to the commencement of the Project, to enable different stages to cover the full scope of the Project. The TMP focuses on implementing measures that minimise impacts during construction, and manage risks associated with construction works to enable the safe passage through the works for pedestrians, cyclists, road users and workers.

LWA plans to ensure public traffic operates continuously and safely whilst being segregated from construction activities. Details regarding notification and correspondence with the public are managed within the Community and Stakeholder Engagement Management Plan (CSEMP).

The Project is monitoring traffic management performance targets, to leverage procedures;

- Construction Travel Times; and
- Construction Incident Events.

Monitoring is undertaken on a regular basis and the overall success of these targets is presented to the LWA board for review at Project Completion.

Workforce Safety

The Project implements a Health and Safety Management Plan which is applied to all activities which occur on the Project, and is supported by the Safety is My Way (SIMW) Georgiou Group safety culture.

Lead and lag HSE statistics are recorded on the Project and, to date, have recorded one First Aid Injury (FAI), one Medical Treatment Injury (MTI) and one Restricted Work Injury (RWI). Injuries and diseases the workforce is pre-disposed to include the following:

- Asbestos.
- Confined Space Entry.
- Coronavirus (COVID-19).
- Excavations.
- Exposure to live services.
- Formwork Operations.
- Slinging and Lifting.
- Loading and Unloading.
- Working around Mobile Plant.
- Tilt up Work.
- Working at Height.
- Live Traffic Incidents.

Project initiatives to address these risks include:

- Organising specific training for high risk work.
- Revising the permit to work procedure.
- Targeted detailed hazard inspections (DHI).
- Implementing the 'Safety is My Way" culture into LWA.
- Scheduled Toolbox Talks.

Lead indicators on the Project are recorded through detailed hazard inspections (DHI) and through workplace inspections. Recordable inspections are observed by supervision, engineering personnel and site management to record hazards and identify corrective actions for rectification.

Table 9: Safety lead indicators

Lead Indicators	Quantity
Reported Safety Incidents	5
Inspections	35
Risk Reviews	14
Audits	1
BAC	2343
Drug Tests	9
Emergency Drills	1

Diversity

LWA is committed to addressing the disadvantage and inequality which may be experienced by Aboriginal people. This will be achieved through employment and business procurement targets, partnerships within industry, and Project initiatives including training and development opportunities. It is our aim to understand and accept Aboriginal culture along with respecting the different values and beliefs. LWA is committed to working in partnership with Aboriginal communities, companies and people to help achieve these goals.

Aboriginal Participation Targets:

- At least 10% of the total work hours is to be undertaken by Aboriginal Persons. For the 20-21 period, the total work hours accounted for 5.9% therefore meeting the target.
- At least 2% of works and/or services to a value of the contract sum us to be undertaken by Aboriginal businesses. For the 20-21 period, the total work hours accounted for 2.4 % therefore meeting the target.

During the early development phase, LWA had the vision to support opportunities for younger high performing individuals to step into senior roles. As a result of this vision, the LWA team is made up of a balance of experienced and young professionals and has enhanced new opportunities. The Alliance encourages performance development and has implemented a program to support the development of relatively "new" professionals over the lifetime of the Project, which also provides a forum for these individuals to collaborate and share experiences.

Workforce Development

LWA will ensure all workers receive training during the course of the Project with the specific aim to acquire skills that will assist in providing long term sustainable employment for the worker.

LWA facilitates ongoing Career Development Discussions and goal setting which focuses on an employee's individual performance and any identified training gaps. On completion of these processes, training needs are identified, and a plan is designed around improving individual performance and opportunities for career progression. This initiative incorporates a suite of mentoring and coaching training for everyone who supervises trainees, apprentices and Aboriginal employees.

The Alliance has aligned with the training rates outlined in the Priority Start Policy and is aiming to improve on numbers of trainees and apprentices present on the project. All workers can be

registered in the following programs according to the requirements of the Project as well as their individual preference and skill set:

- Apprentice Plant Mechanic (Certificate III Automotive Technology, Heavy).
- Apprentice Auto Electrical Mechanic (Certificate III Auto Technology Electrical).
- Certificate III in Civil Construction.
- Certificate III in Civil Construction (Plant Operations).
- Certificate III in Civil Construction (Pipe laying).
- Certificate III in Business Administration.
- Certificate IV in Project Management.
- Certificate IV in Civil Construction Supervision.
- Certificate IV in Building and Estimating.

At present, six LWA employees are currently undertaking Certificates. These include Certificate IV in Business Administration, Certificate III in Civil Construction (Plant Operations) and Certificate IV in Civil Construction Supervision.

Case Study

LWA engaged Aboriginal artist Justin Martin, to design and paint a sea container together with all 218 Queens Park Primary School students. The sea container features a mural based on the Nyoongar Six Seasons, and on the reverse side handprints of the students involved.

The container will store construction equipment during the construction phase of the Project, while celebrating Aboriginal culture with the public, as the artwork is displayed at the main intersection of Leach Highway and Welshpool Road for all to see.

At Project completion, the sea container will be transported to Queens Park Primary School who will take ownership and use to storage various school equipment.

Image 8: Queens Park Primary School Students with painted sea container on site at LWA.

Appendix 1 - List of Protected Areas Project interfaces with:

There are no protected areas within the Project footprint.

Appendix 2 - Protected fauna and flora species and habitat

No Threatened or Priority flora listed under the *Biodiversity Conservation Act 2016* (BC Act) or under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) were recorded within the Project area (as per the Preliminary Clearing Impact Assessment).

The Project intersects part of the Federally Listed *Banksia Woodlands of the Swan Coastal Plain* Threatened Ecological Community (TEC), however vegetation within the Project Area did not meet the key diagnostic characteristics of the TEC (as reported within the Preliminary Clearing Impact Assessment).

The Preliminary Clearing Impact Assessment confirmed the Project area is unlikely to provide habitat for any conservation significant fauna species . Due to the disturbed nature of the Project Area, the site supports a highly modified habitat preferred by opportunistic fauna that are considered common and widespread. The study confirmed four Threatened fauna species potentially occurring within the Project Area:

- *Calyptorhynchus baudinii* (Baudin's Black-cockatoo)
- *Calyptorhynchus latirostris* (Carnaby's Black-cockatoo)
- *Calyptorhynchus banksia naso* (Forest Red-tailed Black-cockatoo)
- *Merops ornatus* (Rainbow Bee-eater).

Appendix 3 – List of Stakeholders to the project

Project External Stakeholders are listed below.

Category	Stakeholder
Local Government Authorities	City of Canning
Government Agencies	Public Transport Authority, Department of Transport
Local community	Local residents in vicinity of the works
Local businesses	Owners of property and business proprietors in vicinity of the works.
Environmental stakeholders	Department of Water and Environmental Regulation
Aboriginal	Local Nyoongar Aboriginal groups, South West Aboriginal Land and Sea Council
Road users	Freight industry bodies, Transperth, motorists, pedestrians, cyclists, Westcycle and other recreational users, taxis.
Service providers	Includes Water Corporation, Western Power, Public Transport Authority (Transperth buses)
Emergency Services	St John Ambulance, DFES, WA Police
Main Roads' Project Review Group and Asset Management	
General public	

The Project has determined stakeholders affected as listed below.

List of Affected Stakeholders
City of Canning
Bentley Villas
Bentley Hospital
Queens Park Primary School
WA Safety + WA Air Springs
Dolphin Scuba
WA Whitegoods
Quik kleen
Ice Works

Perth Wood School
Insight Training
Power Equipment Centre
Minuteman Press
Welshpool Trade Centre
Welshpool Trade Centre
The Redeemed Christian Church of God
Vic Park Flooring
Whitelaw's Ceilings
AutoMasters
Motordad
Kartmart
Toolmart Australia
Veale Auto Partks
Line-X Welshpool
Cloud 9
Subway
Sea Lavender
Signarama
Waynes Windscreens
SMS Mining
Rise Distributors
McLeish & Matthews Pty Ltd
Wesbar Vanquip
Tower Crane Co
Bye Performance
BWS (Better Wear Solutions)
Guz Engineering
WA Fuel
Eco Go Pack
Veolia
Horizons West
Kempe Engineering
Diamond Recovery Services
Claymore Mines
CTI Logistics Ltd
Milne Feed Mill
Welshpool Storage Units
Vibe Fuel Station
Hertz Truck Rental
WA Museum
Westrac
RCR Mining Technologies
LD & D Milk Pty Ltd
John Holland
Keller Piling Contractors
Aussie Car Carriers
AirGroup
Coates Hire

Appendix 4 – MRWA Sustainability Policy

Sustainability principles embedded within the Project's Sustainability Management Plan are driven by the MRWA Sustainability Policy, as outlined in below.

MAIN ROADS WESTERN AUSTRALIA

JULY 2016

Sustainability Policy

We are committed to **developing a transport network that meets social, economic and environmental needs.**

Transport is essential to the development of Western Australia and plays a vital role in creating competitive economies and liveable, inclusive communities by enabling the movement of people and freight.

Intent

- Within the sphere of influence of road-based transport improve the overall outcomes of the transport system
- Address the implications of climate change for Main Roads with consideration of our customers and stakeholders
- Reduce the environmental footprint of our business
- To be informed of environmental, economic, cultural, political and social issues impacting us
- Ensure our key sustainability aspects are considered within our decisions
- Look for ways to maximise whole of government revenue
- Reduce our on-going operational costs

Objectives

- Deliver a road-based transport system that improves community amenity, mobility and travel choice whilst reducing indirect environmental impacts
- Develop an appropriate response and adapt to our changing climate
- Reduce our impact on the natural environment by focusing on emissions, pollution, waste, land use and resources
- Develop a culture of sustainability within our organisation, our industry and our community
- Ensure high standards in governance by measuring and reporting our sustainability performance against our key sustainability aspects
- Create opportunities for innovation in funding and financing for road infrastructure development and maintenance

Peter Woronzow
A/Managing Director of Main Roads

This policy is reviewed every two years or as required to ensure it complies and is relevant to legislative and business obligations.

mainroads WESTERN AUSTRALIA

Appendix 5 – Environmental Management Commitment Statement

The Project has many adjoining stakeholders including (but not limited to) local road users, vehicle and pedestrian, commercial businesses, residents and the City of Canning. Georgiou will endeavour to keep impacts generated by construction activities to a minimum for these stakeholders while delivering an asset that can be utilised and enjoyed by future generations.

In order to achieve these commitments, Georgiou will;

- Generate and implement a Project specific Environmental Management Plan (Main Roads WA approved) with mitigation measures that promote adjoining stakeholder adhesion (e.g.: noise, vibration and dust management measures);
- Track and report on waste being sent to landfill on a monthly basis and reach a target of 60% recycling at practical completion (diversion from landfill);
- Foster sustainability leadership and create a culture that supports sustainable outcomes;
- Consider the needs of the community and surrounding businesses for the design, construction and operational life of the infrastructure
- Complete monthly Detailed Hazard Inspections (Environmental) for the lifetime of the Project; and
- Endeavour to respond to any complaint regarding the environment within 24 hours, after the complaint has been received.

Ensure that clearing is kept to a minimum through design and construction, as well as ensure that trees to be retained are respected and protected to ensure their ongoing survival. This will ensure that the City of Canning maximises its tree canopy cover of the area, which will in turn combat the urban heat island effect

Appendix 6 – Document Reference List

Barrett, A & Carey, M (2019*). Leach Highway and Welshpool Road Grade Separation, Preliminary Clearing Impact Assessment and Vegetation Management Plan*. Spearwood, Western Australia.

Department of Environment (DOE) (2004). *Perth Groundwater Atlas, 2nd Edition*. Perth, Western Australia.

Department of Water and Environmental Regulation (DWER) (2019). *Public drinking water source areas (PDSWA) online mapping tool.* https://dow.maps.arcgis.com/apps/webappviewer/index.html?id=63ddb4ec2a6e463f84028aa3977bab2b Accessed 3 May 2021.

Waste Authority (2019). *Waste Avoidance and Resource Recovery Strategy Action Plan (Western Australia's Waste Strategy).*

Appendix 7 – Sensitive Receptors