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Manuwarra Red Dog Highway: Annual Project Sustainability Report 2020

This annual report covers the period from November 2019 to November 2020. No previous annual sustainability reports have been prepared for the project.

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About this Report

This report has been prepared by the Manuwarra Red Dog Highway Stage 4 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 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).

The Manuwarra Red Dog Highway Stage 4 project is aligned with the ISCA Planning rating framework (version 2.0).

Introduction

The Manuwarra Red Dog Highway (formerly Karratha – Tom Price Road) is a 269 km road linking the regional centres of Karratha and Tom Price in the Pilbara Region of Western Australia. The road provides crucial connectivity between these centres, as well as access to significant tourism destinations and mine sites in the region. However, use of this valuable route is currently restricted with 40% of the road unsealed and unable to safely sustain high volumes of traffic and freight. While safer sealed routes do exist, they compromise time efficiency, stretching over 550 km and adding at least another three hours to the journey. The lack of a safe and time efficient transport option adversely affects the residents and businesses of Karratha, Tom Price, Paraburdoo and the wider Pilbara Region and is a major inhibitor to investment and growth in the tourism and mining sector.

Manuwarra Red Dog Highway Stage 4 project is building 108 km of new sealed road, to deliver a safe, sealed route between Karratha and Tom Price.

The project team's vision is for **"reliable, sustainable, resilient infrastructure, delivered in an engaging way, that builds connectivity, relationships and prosperity in the region"**. The team is committed to delivering a project that achieves the best sustainable outcome 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
- Road corridor selected near Hamersley Homestead in consultation with Eastern Guruma traditional owners
- Environmental surveys (flora and fauna) complete
- Project referred to State and Commonwealth governments for environmental approval
- Heritage surveys underway.

Overview

The Manuwarra Red Dog Highway is a 296 km partially unsealed road linking the regional centres of Karratha and Tom Price in the Pilbara Region of Western Australia. The Manuwarra Red Dog Highway consists of four stages: Stages 1 to 3 have already been completed; and Stage 4 is currently in the

planning and design phase. Sealing of the final 108 km section of road is expected to commence in mid-2022. The State and Federal Government have committed a total of \$215 million to enable the completion of the final stage of Manuwarra Red Dog Highway.

Manuwarra Red Dog Highway Stage 4 planning phase is being delivered by an Integrated Project Team (IPT), comprised of Main Roads Western Australia (Main Roads) and industry partners Jacobs, Arup, BG&E KBR and WSP. The IPT is supported by two design teams; The Coolawanyah Section of the Stage 4 is being delivered by Jacobs, while both the Hamersley and Tom Price Sections are being delivered by KBR.

Key Stakeholders include:

- Federal and State Governments
- State Government Agencies
- Local Governments
- Environmental Regulators
- Industry Bodies
- Residents and business
- Aboriginal Communities
- Roads users
- Freight Industry
- Mining Companies
- Emergency Services
- Visitor Centres
- Pastoral Stations

A comprehensive list of stakeholders is provided in Appendix 3 – List of Stakeholders to the project.

The project website can be found at: <https://www.mainroads.wa.gov.au/projects-initiatives/projects/regional/karratha-tom-price/>.

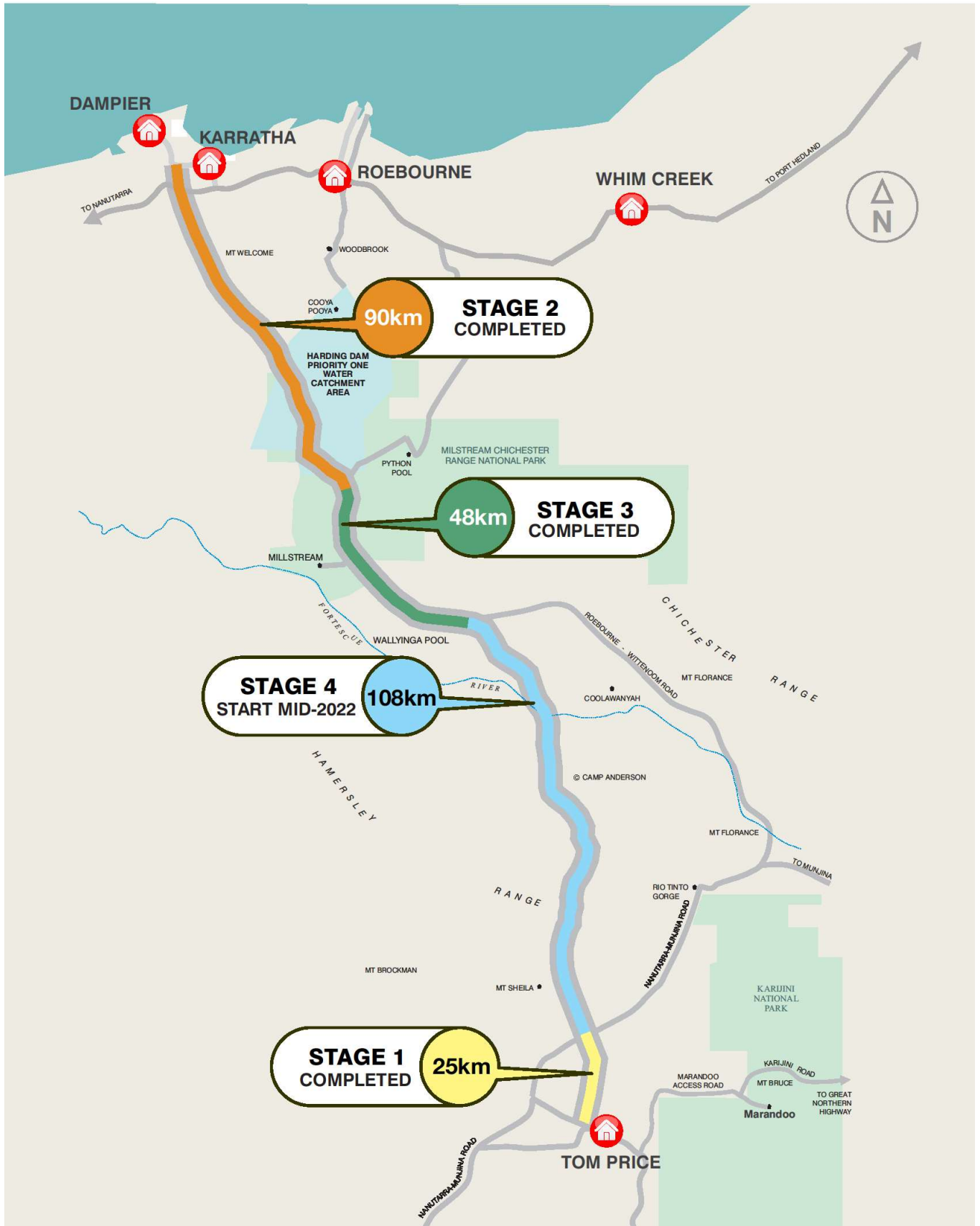


Figure 0-1: Manuwarra Red Dog Highway Map

Overall approach to Sustainability in Project Development

Main Roads has registered Manuwarra Red Dog Highway for a Planning rating under the ISCA Infrastructure Sustainability (IS) v2.0 rating process. The IPT has developed a sustainability strategy for the project that focuses on achieving the best sustainable outcomes with guidance from the IS rating tool, which provides a framework for integrating sustainability across the project. A Bronze rating award is being targeted.

The project has a dedicated Sustainability Lead who is an Infrastructure Sustainability Accredited Professional (ISAP) and reports directly to the Main Roads Project Manager. The Sustainability Lead is part of the IPT and is supported by a team of sustainability professionals.

The Manuwarra Red Dog Highway Stage 4 project has a sustainability management plan that is aligned with the [Main Roads Sustainability Policy](#). The Sustainability Management Plan provides the framework for integration of sustainability into all project activities for Manuwarra Red Dog Highway. It captures the vision and objectives that set the strategic direction for sustainability for the project. Focus on these areas will allow the project to achieve sustainability outcomes beyond business as usual, with a focus on leaving a positive legacy in the Region. As part of the planning phase, targets will be set by the Project.

Table 0-1: Manuwarra Red Dog Highway Objectives

Maximise online resources/ materials
Enhance biodiversity and maximise positive environmental outcomes
Maximise local employment and skills legacy
Maximise shared land use and infrastructure
Maximise network resilience
Maximise social and cultural capital
Maximise usability and serviceability
Maximise innovation and challenge beyond business as usual

Material Sustainability Issues

Regional context and stakeholder concerns are at the forefront of Manuwarra Red Dog Highway and have been considered from the start of the project. As part of the IPT's philosophy of challenging the norm, early engagement was undertaken to understand what the road means to the community and the material sustainability issues. External stakeholder feedback regarding material sustainability issues was provided during the Preliminary Sustainability Workshop held in December 2019.

Table 0-2: Manuwarra Red Dog Highway Material Sustainability Issues

Material issue	Description
Responsible use of resources	Encouraging 'circular economy' and reducing cost of materials
Partnerships and collaboration	Local knowledge, Pilbara partners, win-wins
Reliable, sustainable, resilient infrastructure	'Pilbara proof' (able to withstand the Pilbara climate and weather); survivability

Material issue	Description
Employment and economic growth enabled by the project	Opportunities in construction and operation
Water quality and hydrological regime	Avoiding or reducing impacts on priority groundwater reserves and avoiding excessive disruption to hydrological regimes
Positive project legacy	Responsible consideration of social, land clearing and heritage management and enhancement
Safety	Responsible consideration of social management and enhancement

Environmental Aspects



Environmental context

The Project is located in the Pilbara region of Western Australia within the Shire of Ashburton. The Shire has historically been used for pastoral land, mining, tourism and conservation.

Vegetation within the Development Envelope lies within the Beard (1975) Fortescue Botanical District (Pilbara Region) and is further divided into the Fortescue Valley and Hammersley Plateau subdivisions.

The Project traverses the *Themeda* sp. Hamersley Station Threatened Ecological Community (TEC). The vegetation community is listed as a vulnerable (Category A) TEC by the Western Australian Department of Biodiversity, Conservation and Attractions (DBCA) but is not listed for the purposes of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

The Project also traverses a known occurrence of the PEC 'Brockman Iron cracking clay communities of the Hamersley Range'.

Environment Protection and Biodiversity Conservation Act 1999 and *Biodiversity Conservation Act 2016* listed flora and fauna species and ecological communities that will potentially be impacted by

Manuwarra Red Dog Highway Stage 4 are listed in Appendix 1 - List of Protected Areas Project interfaces with: and Appendix 2 - Protected fauna and flora species and habitat

The Fortescue River and associated tributaries intersect the project area in the northern part of the road. Weelamurra Creek also intersects the project area and has been lodged (not yet registered) as a heritage site. Caves Creek intersects the project area in the southern section of the road.

The Millstream wellfield is located approximately 100 km south of Karratha and, along with water from the Harding Dam Catchment Area and the Bungaroo Creek Water Reserve, it supplies the West Pilbara Water Supply Scheme. This scheme supplies water to Karratha, Dampier, Roebourne, Wickham, Point Samson, Cape Lambert and the Burrup Peninsula.

The Millstream wellfield and surrounding area is encompassed by a water reserve (the Millstream Water Reserve (West Pilbara) Public Drinking Water Resource Area [Millstream Water Reserve]) and associated Priority 1 and Priority 2 Groundwater Protection Areas. The Project is located partially within both of these priority drinking water areas.

Environmental Management

A Preliminary Environmental Impact Assessment (PEIA) was undertaken of the existing environment and the activities associated with Manuwarra Red Dog Highway Stage 4. This assessment provided an evaluation of the potential impacts the project may have on key environmental aspects.

Manuwarra Red Dog Highway Stage 4 will require the clearing of approximately 430 ha of native vegetation and the temporary clearing of an additional 100 ha.

Manuwarra Red Dog Highway Stage 4 specific environmental management actions will need to be developed to manage impacts.

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 Act 1972* Section 18 consent;
- Licences to construct bore and abstract water; and
- Bed and banks permit.

Both EPA and DAWE referrals have been submitted.

The following management plans will be developed for Manuwarra Red Dog Highway Stage 4:

- First Nations Cultural Heritage Management Plan;
- TEC Protection and Management Plan;
- Construction Management Plan;
- Vegetation Protection and Rehabilitation Management Plan; and
- Surface Drainage Management Plan.

Water Management

Water management is a priority issue for Manuwarra Red Dog Highway Stage 4. Managing water consumption is critical, due to the proximity of the Millstream Water Reserve (West Pilbara) Public Drinking Water Resource Area.

Drinking water in the Pilbara is mainly groundwater and the Millstream Water Reserve services several key localities in the Pilbara region. The Development Envelope overlaps this water reserve, including areas listed partially as Priority 1 and Priority 2 drinking water areas.

To support water efficiency and use of suitable water sources during the construction phase, early water source investigation was undertaken by the IPT. The investigation report was shared with design teams as an information document to assist their own water source investigation and selection.

Materials & Recycling

A Resource Efficiency Workshop is planned to take place in January 2021 to explore options associated with materials, waste products, and maximising reuse and efficiency. Forecasts will be prepared of the anticipated materials and wastes. The outcomes of this workshop will feed into the Project targets in line with the project objectives of maximising online resources and minimising waste.

A Resource Efficiency Strategy will be developed for Manuwarra Red Dog Highway Stage 4 following the Resource Efficiency Workshop.

Economic Aspects

Economic context

Manuwarra Red Dog Highway is a Nationally significant strategic investment. It will improve linkages between major service centres and stimulate economic activity in the Pilbara, a powerhouse of the Australian economy and a burgeoning tourist destination, and in addition deliver significant social and community benefits. Compared to alternative sealed routes, distances and travel times will be approximately halved.

The Pilbara Region is a globally significant mining and energy region, boasting a wealth of resource endowments, dynamic communities, rich First Nations culture and stunning natural landscapes. An upgraded road will enable much easier access to major tourism destinations such as Karijini National Park and open the potential for tourism product such as First Nations cultural experiences and day trips from Karratha.

Reliability of access in the cost to move personnel to and from mines are significant for the mining industry. A sealed road could enable some mines to be serviced on a Drive-in Drive-out (DIDO) rather than a Fly-in Fly-out (FIFO) basis and would positively impact on the economics of bringing in supplies and equipment.

An upgraded road will substantially reduce the distance and cost of travel for remote communities. These factors, plus the impact of road closures, significantly impact communities, including First Nations communities, and make it much more difficult for them to access health, education, and employment opportunities.

Key Economic Outcomes

The benefits that would arise from upgrading and sealing the road are summarised below:

- Major travel time savings;
- Reductions in vehicle operating costs;
- Improved safety;
- Improved economic outcomes, especially mining and tourism, resulting from reduced travel costs, certainty of travel, and availability of new options;
- Better access to education, health, and employment opportunities;
- Potential of being able to replace FIFO mining operations with DIDO.

Climate Change Assessments

The concept of building a reliable, resilient, ‘Pilbara proof’ road is one of the key focus areas for Manuwarra Red Dog Highway Stage 4. Stakeholder engagement has begun to understand what the idea of ‘Pilbara proof’ means to the community, especially in terms of road access after cyclones or flooding events.

Main Roads has commenced a climate change assessment and in coming months will be producing climate change projections, a climate change risk assessment and identifying appropriate targets and management measures.

A Resilience workshop is planned with stakeholders in November 2020, to develop shared understanding of social and environmental resilience and how it applies to Manuwarra Red Dog Highway Stage 4. The Resilience workshop will also discuss the climate change projections and risks.

Social Aspects

Social context

Manuwarra Red Dog Highway Stage 4 has prioritised stakeholder engagement efforts earlier within the planning stage of the project. The importance of prompt and comprehensive engagement strategy has been recognised in order to construct a resilient and sustainable road that meets the need of all users.

As part of the IPT’s philosophy of challenging the norm, early engagement was undertaken to understand the regional context of the road and what the road means to the community. External stakeholder feedback regarding the road’s context and its interrelationship with external influences was provided during the preliminary sustainability workshop in December 2019. The role of the road in the context of local, regional, state and international communities was defined as per Table 0-1.

Table 0-1 : The role of Manuwarra Red Dog Highway

Roles of the Road in the Context of Community
Not the only road – pastoral use
Safe and efficient access - fatigue management
Missing link between earlier stages at Tom Price
Construction contracts
Business growth
Develop region
Save money
Reliability of access

Connects urban centres and National Parks with a sealed public road
Opportunities for the Port
Mine operations
Social connectivity
Asbestos risk removal

Community & Stakeholder Engagement

Stakeholder consultation has been undertaken with regards to the Manuwarra Red Dog Highway Stage 4 since 2019. Stakeholder consultation will continue through the Develop, Deliver and Operations Phases.

A Communication and Stakeholder Engagement Strategy (CSES) has been developed to achieve the following outcomes:

- Stakeholder satisfaction with the engagement process – felt involved / had influence;
- Identify, address and resolve stakeholder issues;
- Positive reputation for Main Roads and its project management;
- Build strong, ongoing relationships with the local community, generating trust and confidence in Main Roads and our vision for the road network.

As Manuwarra Red Dog Highway Stage 4 relies on a wide range of stakeholders from across government agencies, private sector and civil society, early engagement can help Main Roads be better informed about stakeholder concerns, issues, and challenges.

A comprehensive list of stakeholders is provided in Appendix 3 – List of Stakeholders to the project.

Stakeholder input is being sought on several areas to provide input into the design:

- Stakeholder led innovations;
- Environmental offset opportunities;
- Potential social offsets and win-win outcomes;
- Local and First Nations opportunities;
- Input into construction methodology;
- Directional signage (wayfinding);
- Water sourcing opportunities;
- Industry collaboration opportunities;
- Material supply;
- Defining 'Pilbara Proof';
- Highway alignment within the preferred corridor;
- Roadside amenities; and
- Highway access points from public and private roads.

To date, stakeholder involvement or input that has influenced development of Manuwarra Red Dog Highway Stage 4 includes:

- Agreement on the Highway interface with the FMG rail bridge (Eliwana Arch)
- Eastern Guruma representatives input into the corridor selected near Hamersley Homestead.

- Safety and Technical recommendations for the Highway to remain on the western side of the existing rail line
- Freight industry preference that the Highway will accommodate RAV10 vehicles.
- Community feedback on the naming of the Manuwarra Red Dog Highway.

Heritage

Main Roads have engaged Juluwarlu Group Aboriginal Corporation (JGAC), along with Stevens Heritage Services and Gavin Jackson Cultural Resource Management, to conduct ethnographic and archaeological heritage surveys with Yindjibarndi Traditional Owners over the northern sections (Coolawanyah and Hamersley) of the alignment corridor. Wintawari Guruma Aboriginal Corporation (WGAC), along with Yulur Heritage, have been engaged to conduct surveys with Eastern Guruma Traditional Owners over the southern section (Tom Price).

The surveys will identify and map the extent of any archaeological or ethnographic heritage sites that exist within the alignment corridor so as to enable Main Roads to avoid them. The surveys will also result in Yindjibarndi and Eastern Guruma Traditional Owners' recommendations on the management of those sites.

Surveys with JGAC and WGAC have already been completed over some of the alignment corridor, and further surveys are scheduled for November 2020 through to February 2021.

Workforce Development

The Pilbara Region is one of the healthiest, buoyant, and well-paid labour markets in Australia; both for local and First Nations employment. The Pilbara region supports 63,850 jobs and an economic output of \$67.471 billion. 14% of the Pilbara population are First Nations people (8308 identified as Aboriginal in 2016). There is very low unemployment (~3.1%), a diversified mining, engineering and construction industry sector providing extensive opportunities for First Nations people (across the Pilbara - approximately 4200 employed in mining, approximately 1000 in civil and engineering construction) and extremely optimistic outlooks for significant mining and engineering construction projects. In recognition of this competitive regional labour market, Main Roads has committed to an innovative adoption of workforce sustainability using the IS v2.0 Planning Framework on strategic workforce planning.

The Manuwarra Red Dog Highway Stage 4 workforce strategy approach is guided by the Project sustainability vision, which creates a strategic focus on maximising social and cultural opportunities, sustainable use of recycled materials, existing infrastructure and land use and providing a resilient 'Pilbara proof' asset.

At this early stage of the program, the Manuwarra Red Dog Highway workforce strategy is focused on delivering the following:

- A workforce strategy, model, and action plan to secure the right economic legacy outcomes (skills, workforce, and services) for the project across the entire program lifecycle to 2024.
- Design and implementation of a highly networked project organisation design and leadership model, consisting of the introduction of stream leads (discipline heads) to manage work streams in a very flat structure, a first for Main Roads.
- The selection and retention of a highly diverse workforce for the select phase of the project over November-June 2020 (~30% female), with a managed transition for some consultants into project leadership roles to manage the Reference Design.

- Leading workforce planning practices and tools aligned to the new revision of the ISCA Planning Framework, a first for Main Roads, leading to early strategic competitive intelligence on Pilbara skills availability.

A First Nations Business Development and Culture Inclusion Framework is also currently being developed. The Framework will outline how:

- Traditional Owners will be engaged and involved with the project to shape the projects outcomes
- First Nations business and workforce development will be planned and implemented across the project phases
- Cultural (ethnographic) awareness and appreciation will be included into the project.

Appendix 1 - List of Protected Areas Project interfaces with:

- *Themeda* sp. Hamersley Station (M.E. Trudgen 11431) Threatened Ecological Community (Category A)
- Brockman Iron cracking clay communities of the Hamersley Range - Priority 1 (Priority Ecological Community)
- The Millstream Water Reserve (West Pilbara) Public Drinking Water Resource Area [Millstream Water Reserve] and associated Priority 1 and Priority 2 Groundwater Protection Areas.

Appendix 2 - Protected fauna and flora species and habitat

Protected flora species:

- *Goodenia nuda* (Priority 4).
- *Goodenia* sp. East Pilbara (Priority 3)
- *Barbula ehrenbergii* (Priority 1)
- *Calotis squamigera* (Priority 1)
- *Indigofera ixocarpa* (Priority 2)
- *Paspalidium retiglume* (Priority 2)
- *Scaevola* sp. Hamersley Range basalts (S. van Leeuwen 3675) (Priority 2)
- *Acacia daweana* (Priority 3)
- *Acacia effusa* (Priority 3)
- *Astrebla lappacea* (Priority 3)
- *Dampiera anonyma* (Priority 3)
- *Eragrostis crateriformis* (Priority 3)
- *Eremophila magnifica* subsp. *velutina* (Priority 3)
- *Fimbristylis sieberiana* (Priority 3)
- *Goodenia* sp. East Pilbara (A.A. Mitchell PRP 727) (Priority 3)
- *Olearia mucronata* (Priority 3)
- *Owenia acidula* (Priority 3)
- *Ptilotus subspinescens* (Priority 3)
- *Sida* sp. Hamersley Range (K. Newbey 10692) (Priority 3)
- *Stylidium weeliwolli* (Priority 3)
- *Acacia bromilowiana* (Priority 4)
- *Goodenia nuda* (Priority 4)
- *Lepidium catapycnon* (Priority 4)
- *Ptilotus trichocephalus* (Priority 4)

Protected fauna species:

- Northern Quoll (*Dasyurus hallucatus*) - Endangered under the EPBC Act and BC Act
- The Pilbara Leaf Nosed Bat (*Rhinonicteris aurantia*) (Pilbara form) - Vulnerable under the EPBC Act and BC Act. Potential foraging habitat for the species within the project area.
- Ghost Bat (*Macroderma gigas*) - Vulnerable under the EPBC Act and BC Act
- Olive Python (*Liasis olivaceus barroni*) - Vulnerable under the EPBC Act and BC Act.
- Curlew Sandpiper (*Calidris ferruginea*) - Critically Endangered under the EPBC Act and BC Act.
- Australian Painted Snipe (*Rostratula australis*) - Endangered under the EPBC Act and BC Act.
- Night Parrot (*Pezoporus occidentalis*) - Endangered under the EPBC Act and Critically Endangered under the BC Act.

Appendix 3 – List of Stakeholders to the project

Stakeholder

Federal Government

Federal Minister for Infrastructure and Transport, Hon Michael McCormack

State Government

Minister for Transport, Hon Rita Saffioti

Premier Mark McGowan

Minister for Regional Development Alannah MacTiernan

State Local Members

Kevin Michel, MLA - Member for Pilbara

Hon. Kyle McGinn, MLC - Member for Mining and Pastoral Region

State Government Agencies

- Department of Transport (DoT)
- Department of Planning, Lands and Heritage (DPLH)
- Department of Biodiversity, Conservation and Attractions (DBCA)
- Department of Health (DoH)
- Department of Water and Environment Regulation (DWER)
- Pilbara Development Commission (PDC)
- Department of Mines, Industry, and Safety (including Worksafe) (DMIRS)
- Water Corporation/Service providers

Federal Government Agencies

- **Department of Agriculture, Water and the Environment (DAWE)**

Mining Companies

Rio Tinto

BBI

Fortescue Mining Group (FMG)

Emergency Services

- St John Ambulance
- Department of Fire and Emergency Services (FESA)
- WA Police

Local Governments

Shire of Ashburton

City of Karratha

Industry Bodies

Freight and Logistics Council of WA

Western Transport Federation

Visitor Centres

Karratha Visitor Centre

Tom Price Visitor Centre

Businesses

Local businesses

Businesses (construction related)

Aboriginal Businesses

Local Communities

Sporting groups

Schools

Churches

Road Users

Residents within Karratha/Tom Price/Paraburdoo who may use the road

Tourists/Visitors

Environmental Groups

Pastoral Stations

Coolawanyah

Hammersley Station

Aboriginal Communities

Wintawari Garuma Aboriginal Corporation

Yindjibarndi Aboriginal Corporation

Appendix 4 – Sustainability Dashboard for Project Development

Environment

Aspect	Total for Project
Actual clearing to date (ha)	0
Actual rehabilitation/revegetation to date (ha)	0
Total water use for project to date (kl)	0
Total energy use for the project to date (MJ)	0
Total GHGs for the project to date (t CO _{2-e})	0
Total imported materials used (t)	0
Total recycled materials used (t)	0

Social

Social Aspect	Total for Project
No. of Stakeholders engaged with during project development	N/A
No. of Legacy commitments	N/A
No. of heritage sites in project vicinity	Surveys incomplete
No. of heritage sites significantly impacted	Surveys incomplete
Existing number of traffic safety incidents within project boundary	N/A
Forecast number of traffic safety incidents within project boundary	N/A
% of women in project development workforce	N/A
% indigenous in project development workforce	N/A
% of people with disabilities in project development workforce	N/A
Number of hours training during project development	N/A
Number of development employees and apprentices during project development	N/A
Number of employees (FTEs) sourced from local community for project development	N/A
Safety metrics during project development i.e. ROSMA crash metric reduction target	N/A

Economic

Economic Aspect	Total for Project
Project spend to date	N/A
Project spend to date by significant project activities including key contracts to deliver activities	N/A
Number of people employed by supply chain during project development	N/A
Number of suppliers engaged during project development	N/A
Number of Indigenous Enterprise during project development	N/A
Number of Disability Enterprise during project development	N/A

Buy Local Spend during project development	N/A
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Appendix 5 – Glossary of Terms

Term	Definition
Credits	Each IS v2.0 credit has up to three levels of achievement and addresses a specific aspect of sustainability performance within the category.
Criterion	Within each IS v2.0 credit are criteria which are numbered as per the level and rating that they respond to. The criteria are further explained in the IS rating tool with 'must' statements that outline the mandatory requirements for the criteria.
CSES	Community and Stakeholder Engagement Strategy
Develop Phase	Includes the development of the alignment and reference design, as well as development of plans that enable the successful delivery and implementation of the project. The project delivery method is determined, procurement options and the preliminary estimates are prepared.
Deliver Phase	Includes development of the preliminary (or tender) design, then detailed design and delivery of the project to agreed time, cost and scope. A delivery partner may be selected at this point where a design and construct delivery method is employed.
ISAP	Infrastructure Sustainability Accredited Professional
ISCA	The Infrastructure Sustainability Council of Australia
IS Rating Scheme	Infrastructure Sustainability (IS) rating scheme comprises: <ul style="list-style-type: none"> ▪ The IS rating tools for Planning, Design and As Built and Operation ▪ ISCA education and training programs (including the IS Accredited Professional program) ▪ Working and Advisory Groups.
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"> ▪ The IS Technical Manual ▪ IS rating tool scorecard (IS Scorecard) ▪ IS Materials Calculator – a calculator used to measure performance in the Materials category (Design & As-Built and Operations only)
Main Roads	Main Roads Western Australia
Objective	The desired result or outcome that the project is trying to achieve

Pilbara proof	Pilbara Proof refers to a resilient road design that acknowledges the unique hydrology considerations of the Pilbara. It provides a fit for purpose approach that maximises service availability, minimises requirements for post flooding maintenance requirements, and provides a value for money approach to delivering critical road facilities in the Pilbara.
RAV Rating	Restricted Access Vehicle
Recycled	A used item is processed into a totally new product via a energy consuming process.
Reused	The practice of reutilising an item into same or a different use after the original purpose is filled.
SMP	Sustainability Management Plan
Target	A measurable and realistic level of performance for a specified performance indicator.
Themes	Each IS v2.0 Theme is made up of categories and each category is divided into several credits.
Vision	A sentence or short paragraph describing the aspirations for the project that underpin strategic planning.