



**Major Infrastructure Proposal Assessment
Main Roads Western Australia
Forrest Highway Greenlands Road Interchange
Summary Assessment Report**

Infrastructure WA

Level 41, 108 St Georges Terrace
Perth Western Australia 6000

Phone: 08 6552 5229

Email: proposals@infrastructure.wa.gov.au

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Acknowledgment of Country

Infrastructure WA acknowledges the Traditional Custodians of Western Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal communities and their cultures; and to Elders both past and present.

Major Infrastructure Proposal Assessment Summary Report

Purpose

This assessment report has been prepared in carrying out Infrastructure WA's (IWA) legislative function to assess and report to the Premier on major infrastructure proposals. The assessment is of the Main Roads Western Australia (MRWA) Forrest Highway Greenlands Road Interchange (FHGRI) Business Case (December 2023 version), additional supporting information, and consultation with stakeholders.

1. IWA observations

IWA considers that with the business case, supporting information, and insight gained from stakeholder consultation, the FHGRI contains sufficient information to inform a government investment decision, and is consistent with the requirements of the Strategic Asset Management Framework (SAMF) Business Case Guidelines for a lower value/risk proposal.

However, IWA also notes that while there is demonstrated strategic merit for the provision of improved infrastructure at the intersections of Forrest Highway and Greenlands Road in the medium to long term, further information regarding project urgency compared to other capital investments would support the investment case and a decision around optimal timing for implementation.

2. Context

2.1 Project background

The FHGRI business case was prepared to examine the need for connectivity changes on Forrest Highway south of Pinjarra in view of increasing traffic demand, nearby changes to land use (greater urbanisation in the Peel region), and current infrastructure limitations. The proposal is strategically related to other current nearby road upgrade projects including the proposed Pinjarra Heavy Haulage Deviation and extension of Tonkin Highway to Mundijong Road and South Western Highway.

3. Strategic Merit

3.1 Alignment

FHGRI is aligned to a number of government policies and related strategic documents, including:

- Perth and Peel @ 3.5 million - Transport Network Planning: This includes Greenlands Road and Forrest Highway being designated as primary freight roads, requiring protection from urban encroachment. Forrest Highway and the Greenlands Road and South Eastern Highway link are identified as a high wide load route.
- Perth and Peel @ 3.5 million - Future Land Use: This states the South Metropolitan and Peel sub-regions will experience high sub-regional population and jobs growth, which will impact on freight efficiency and increase passenger and freight conflicts.
- Draft South West Supply Chain Strategy: The strategy identifies upgrades to Forrest Highway including at the intersection at Greenlands Road as one of multiple ongoing improvements to the road network that could benefit safety, and the interaction between general and freight traffic.
- Driving Change: Road Safety Strategy for Western Australia 2020-2030 - This strategy includes ensuring that investments in road infrastructure align with safe system principles, which includes taking a systematic approach to building a safe road system.

3.2 Problems and opportunities

The business case presents three main problems to be addressed as part of a possible intervention:

- growing traffic demand will result in increasingly unsafe turning movements onto Forrest Highway, especially for heavy vehicles.
- conflict between road safety, community amenity and freight efficiency is likely to intensify over time.
- current intersection form is leading to land development deferrals in order to preserve road safety on Forrest Highway.

Forecast residential development and the establishment of district centres in the area, including around Pinjarra and to the west of Forrest Highway is expected to generate more local trips, more turning movements from minor roads and an undesirable mix between local, regional and freight traffic will exacerbate these issues into the future.

4. Options assessment

MRWA has followed a structured approach to developing and assessing project options. Two options were included in the shortlist. These options are variations of the proposed intersection upgrade, compared to a 'base case' which included potential regulatory changes, including reducing posted speed limits on Forrest Highway in the vicinity of Greenlands Road. The two comparative options were:

- Option 1 - Removing existing at-grade "seagull" intersections on Forrest Highway at Greenlands Road, the provision of a grade separated 'dog bone' grade separation over Forrest Highway with connections to and from Forrest Highway via the interchange ramps, and the closure of Beecham Road.
- Options 2 - Same as option 1 however also includes a flyover at Paull Road, approximately 4km south of Greenlands Road.

Options assessment has been supported by transport modelling, multi-criteria analysis considering economic, cost, social and environmental assessment criteria and an economic analysis of the two shortlisted options.

IWA encourages that feedback from key stakeholders is considered as part of the next stages of project development, and is more comprehensively documented in future business cases.

5. Societal impacts

5.1 Economic and financial assessment

MRWA has included economic cost benefit analysis (CBA) of the two options relative to the base case. The estimated benefit cost ratio (BCR) of option 1 and 2 is 0.88 and 0.74 respectively over the 30-year assessment horizon.

Not all of the potential benefits of the proposal have been monetised. This includes potential benefits associated with releasing land for residential development along Forrest Highway, facilitation of continued industrial development at the Pinjarra Industrial Estate, and facilitation of activity at the Kemerton Industrial Area.

5.2 Social assessment

The business case outlines two primary social benefits associated with FHGRI including road safety and potential benefits of diverting additional freight traffic away from the Pinjarra town centre.

5.3 Environmental assessment

The business case provides limited information relating to the estimated environmental impacts or benefits of the proposal, and states that detailed environmental and cultural heritage surveys have not yet been undertaken. IWA notes that significant constraints are not expected by MRWA.

IWA encourages that further consideration of the potential environmental impacts of the proposal is considered as part of the next stage of project development.

6. Recommended option and project definition

The proposed design removes the two existing at-grade “seagull” intersections on Forrest Highway that provide connection to Greenlands Road. This is proposed to be achieved by grade separating Greenlands Road over Forrest Highway and providing connectivity to and from Forrest Highway via the interchange ramps capable of accommodating Over Size Over Mass vehicles. The proposal also includes the closure of Beecham Road 3km north of Greenlands Road in order to improve safety.

The proposed “dog bone” grade-separated interchange is shown below.



7. Deliverability

IWA understands that MRWA continues to consider potential deliverability issues relating to the project, and encourages MRWA to progress further consultation with key stakeholders as part of the next stage of project development. According to the business case the preferred project option is scheduled for delivery by mid-2028.

IWA considers that deliverability for the proposal is low risk, and can be managed by MRWA as a standard part of its asset investment program, however note that further design and risk mitigation plans need to be developed as part of the next state of project development.