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## 5 REGULATORY CONTEXT

### 5.1 Key Legislation

This proposal will be undertaken in accordance with the requirements of both the Commonwealth and Western Australian State legislation. The two main pieces of environmental protection legislation that relate to the approval of this proposal are the Commonwealth EPBC Act and the Western Australian EP Act.

#### 5.1.1 Commonwealth Legislation

The EPBC Act is administered by the DOTE and provides a legal framework to protect and manage flora, fauna, ecological communities, and heritage places that are of national and international importance. Approval is required under the EPBC Act if any proposed action is likely to have a significant impact on Matters of National Environmental Significance (MNES). There are currently nine MNES defined in the EPBC Act.

This proposal was referred to DOTE on 31 October 2013 (EPBC 2013/7042) and the Minister decided on 27 November 2013 that the proposal was a controlled action and on 21 January 2014 made the decision that it requires assessment through a Public Environment Report.

The Strategic Assessment of the Perth and Peel Regions (SAPPR) is currently being undertaken under the EPBC Act. At a state level the SAPPR is being led by the Department of Premier and Cabinet, which is working closely with a number of state government agencies. The SAPPR will assess the impact of future development proposed under current state land use planning on MNES within the Perth and Peel regions in order to provide effective long-term management of key environmental issues and greater certainty to industry on those areas that can be developed.

The assessment of this proposal's environmental impacts is not being conducted as part of the SAPPR process. The timing of the SAPPR was not consistent with the timeframes required for the project to be ready for construction. However, the SAPPR does take this proposal into account given the implications of this proposal on future land use planning.

Further information on the SAPPR is available at [www.dpc.wa.gov.au](http://www.dpc.wa.gov.au).

#### 5.1.2 Western Australian Legislation

The EP Act is the primary legislation that manages environmental impact assessment and environmental protection in WA and is administered by the EPA. The EP Act provides for the prevention, control and reduction of pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment.

This proposal was referred to the EPA under Section 38 of the EP Act (Part IV) on 25 October 2013. The EPA set the level of assessment for the proposal as a PER on 6 January 2014, with a four-week public review period.

### 5.2 Other Regulatory Requirements

Other relevant Acts and Regulations relating to planning, environmental management and heritage matters have been set out in Table 5.1.

**Table 5.1 Regulatory requirements**

Title of Act	Title of Regulations	Title of guidelines, plans and procedures
<b>Commonwealth</b>		
<i>Native Title Act 1993</i>		
<i>Environment Protection and Biodiversity Conservation Act 1999</i>		<ul style="list-style-type: none"> <li>• Matters of National Environmental Significance: Significant Impact Guidelines 1.1 EPBC Act 1999 (DOTE, 2013).</li> <li>• Matters of National Environmental Significance: Significant Impact Guidelines 1.2 Actions on, or impacting upon, Commonwealth Land and Actions by Commonwealth Agencies (DSEWPAC, 2013).</li> <li>• Carnaby’s Cockatoo (<i>Calyptorhynchus latirostris</i>) Recovery Plan (DPAW, 2013a).</li> <li>• Western Swamp Tortoise (<i>Pseudemydura umbrina</i>) Recovery Plan (Burbidge et al., 2010).</li> <li>• Survey Guidelines for Australia’s Threatened Reptiles: Guidelines for Detecting Reptiles Listed as Threatened under the <i>EPBC Act 1999</i> (DSEWPAC, 2011).</li> <li>• Grand Spider Orchid (<i>Caladenia huegelii</i>) Recovery Plan (DEC, 2009).</li> <li>• Narrow Curved-leaf Grevillea (<i>Grevillea curviloba</i> subsp. <i>incurva</i>) Interim Recovery Plan 2000-2003 (Phillimore and English, 2000).</li> <li>• Community of Tumulus (organic mound) springs of the Swan Coastal Plain Interim Recovery Plan No. 198 (CALM, 2006).</li> <li>• <i>Corymbia calophylla</i> – <i>Xanthorrhoea preissii</i> woodlands and shrublands (Swan Coastal Plain Community type 3c – Gibson et al. 1994) Interim Recovery Plan 2000-2003 (English and Blyth, 2000).</li> <li>• <i>Environment Protection and Biodiversity Conservation Act 1999</i> Conservation Advice for Clay Pans of the Swan Coastal Plain (TSSC, 2012).</li> </ul>

Title of Act	Title of Regulations	Title of guidelines, plans and procedures
		<ul style="list-style-type: none"> <li>• <i>Environment Protection and Biodiversity Conservation Act 1999</i> Environmental Offsets Policy (Government of Australia, 2012).</li> <li>• Department of Environment Offset Assessment Guide (DSEWPAC, 2012a).</li> <li>• Department of Environment How to Use the Offsets Assessment Guide (DSEWPAC, 2012b).</li> <li>• EPBC Act Referral Guidelines for Three Threatened Black Cockatoo Species (DSEWPAC, 2012c).</li> <li>• Survey Guidelines for Australia's Threatened Birds: Guidelines for Detecting Birds Listed as Threatened under the <i>EPBC Act 1999</i> (DEWHA, 2010).</li> <li>• Forest Black Cockatoo (Baudin's Cockatoo <i>Calyptorhynchus baudinii</i> and Forest Red-tailed Black Cockatoo <i>Calyptorhynchus banksii naso</i>) Recovery Plan 2007-2016 (Chapman, 2007).</li> </ul>
<b>State</b>		
<i>Aboriginal Heritage Act 1972</i>	Aboriginal Heritage Regulations 1974	<ul style="list-style-type: none"> <li>• EPA Guidance Statement 41: Assessment of Aboriginal Heritage (April 2004) (EPA, 2004a).</li> </ul>
<i>Biosecurity and Agriculture Management Act 2007</i>	Biosecurity and Agriculture Management Regulations 2013	
<i>Bush Fire Act 1954</i>	Bush Fire Regulations 1954	
<i>Conservation and Land Management Act 1984</i>	Conservation and Land Management Regulations 2002  Forest Management Regulations 1993	
<i>Contaminated Sites Act 2003</i>	Contaminated Sites Regulations 2006	

Title of Act	Title of Regulations	Title of guidelines, plans and procedures
<i>Environmental Protection Act 1986</i>	Environmental Protection Regulations 1987	<ul style="list-style-type: none"> <li>• Guidance for the Assessment of Environmental Factors No. 6 Rehabilitation of Terrestrial Ecosystems (EPA, 2006a).</li> <li>• Guidance for the Assessment of Environmental Factors No. 10 Level of Assessment for Proposal Affecting Natural Areas within the System 6 Region and Swan Coastal Plain Portion of the System 1 Region (EPA, 2006b).</li> <li>• Guidance Statement 12: Minimising Greenhouse Gases (October 2002) (EPA, 2002a).</li> <li>• Guidance Statement 33: Environmental Guidance for Planning and Development (May 2008) (EPA, 2008).</li> <li>• Guidance for the Assessment of Environmental Factors No. 51: Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia (EPA, 2004b).</li> <li>• EPA Guidelines for preparing a Public Environmental Review 2012 (OEPA, 2012).</li> <li>• Environmental Impact Assessment Administrative Procedures 2012.</li> <li>• Guidance Statement 55: Implementing best practice in proposals submitted to the Environmental Impact Assessment Process (December 2003) (EPA, 2003).</li> <li>• Guidance Statement 56: Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia (June 2004) (EPA, 2004c).</li> <li>• Environmental Assessment Guideline 1: Defining the key characteristics of a proposal (May 2012) (EPA, 2012).</li> <li>• Environmental Assessment Guideline 8: Environmental factors and objectives (January 2015) (EPA, 2015a).</li> <li>• Environmental Assessment Guideline 9: Application of a significant framework in the environmental impact assessment processes (January 2015) (EPA, 2015b).</li> </ul>

Title of Act	Title of Regulations	Title of guidelines, plans and procedures
		<ul style="list-style-type: none"> <li>• Environmental Assessment Guideline 11: Recommending environmental conditions (September 2013) (EPA, 2013a).</li> <li>• Acid Sulfate Soils Guideline Series: Identification and Investigation of Acid Sulfate Soils and Acidic Landscapes (DEC, 2013a).</li> <li>• Acid Sulfate Soils Guideline Series: Treatment and management of soils and water in acid sulfate soil landscapes (DEC, 2011).</li> <li>• WA Government Environmental Offset Guidelines (Government of Western Australia, 2014).</li> </ul>
	Environmental Protection (Noise) Regulations 1997	<ul style="list-style-type: none"> <li>• Environmental Assessment Guideline 13: Consideration of Environmental Impacts from Noise (September 2014) (EPA, 2014b).</li> </ul>
	Environmental Protection (Clearing of Native Vegetation) Regulations 2004	
<i>Heritage of Western Australia Act 1990</i>	Heritage of Western Australia Regulations 1991	<ul style="list-style-type: none"> <li>• State Register of Heritage Places.</li> </ul>
<i>Land Administration Act 1997</i>	Land Administration Regulations 1998	
<i>Main Roads Act 1930</i>		
<i>Planning and Development Act 2005</i>	Planning and Development Regulations 2009	<ul style="list-style-type: none"> <li>• Local Planning Scheme Heritage List.</li> </ul>
<i>Rights in Water and Irrigation Act 1914</i>	Rights in Water and Irrigation Regulations 2000	
<i>Metropolitan Water Supply Sewerage and Drainage Act 1909</i>		
<i>Waterways Conservation Act 1976</i>	Waterways Conservation Regulations 1981	<ul style="list-style-type: none"> <li>• A Guide to Managing and Restoring Wetlands in Western Australia (DEC, 2012a).</li> </ul>
<i>Wildlife Conservation Act 1950</i>	Wildlife Conservation Regulations 1970	

### 5.2.1 International Agreements

The following international agreements have been considered as part of this proposal:

- China–Australia Migratory Bird Agreement (CAMBA).
- Japan–Australia Migratory Bird Agreement (JAMBA).
- Republic of Korea–Australia Migratory Bird Agreement (ROKAMBA).
- The Ramsar Convention on wetlands.

### 5.2.2 Policies and Position Statements

Other relevant policies, position statements and publications that have been considered in the development of this PER are listed below.


#### 5.2.2.1 Policies

- State Planning Policy 1: State Planning Framework Policy (Government of Western Australia, 2000a).
- State Planning Policy 2: Environment and Natural Resources (Government of Western Australia, 2003).
- State Planning Policy 2.2: Gngangara Groundwater Protection (Government of Western Australia, 2005).
- State Planning Policy 2.8: Bushland Policy for the Perth Metropolitan Region (Government of Western Australia, 2010).
- State Planning Policy 2.9: Water Resources (Government of Western Australia, 2006).
- State Planning Policy 5.4: Road and Rail Transport Noise and Freight Considerations in Land Use Planning (Government of Western Australia, 2009).
- WA Government Environmental Offsets Policy, 2011 (Government of Western Australia, 2011).
- Environmental Protection (Gngangara Mound Crown Land) Policy 1992.
- Environmental Protection (Swan Coastal Plain Lakes) Policy 1992.
- WA Government Bush Forever Policy 2000.
- Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy (Government of Australia, 2012).

#### 5.2.2.2 Environmental Protection Bulletins and Position Statements

The EPA's Environmental Protection Bulletins (and their predecessors, Position Statements) outline the views of the EPA on various matters. These Position Statements are:

- Environmental Protection Bulletin No. 1: Environmental Offsets (EPA, 2014c).
- Position Statement 2: Environmental Protection of Native Vegetation in Western Australia (EPA, 2000).
- Position Statement 3: Terrestrial Biological Surveys as an Element of Biodiversity Protection (EPA, 2002b).
- Position Statement 4: Environmental Protection of Wetlands (EPA, 2004d).
- Position Statement 7: Principles of Environmental Protection (EPA, 2004e).

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- Environmental Protection Bulletin 20: Protection of Naturally Vegetated Areas through Planning and Development (EPA, 2013b).

#### **5.2.2.3 Other**

- EPA and DEC Technical Guide – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA and DEC, 2010).
- Geomorphic Wetlands Swan Coastal Plain Dataset (DPAW, last updated May 2014).
- Gngangara Groundwater Areas Allocation Plan, Water Resource Allocation and Planning Series Report No. 30 (DOW, 2009a).
- Gngangara Land Use and Water Management Strategy (WAPC and WRC, 2001a).
- Water Quality Protection Notes:
  - No. 44 – Roads Near Sensitive Water Resources (DOW, 2006a).
  - No. 36 – Protecting Public Drinking Water Source Areas (DOW, 2009b).
  - No. 6 – Vegetation buffers to sensitive water resources (DOW, 2006b).
- MRWA Environmental Guideline: Revegetation Planning and Techniques (Doc. No. 6707/031) (MRWA, 2004).
- MRWA Environmental Guideline: Vegetation Placement within the Road Reserve (Doc. No. 6707/022) (MRWA, 2013b)
- MRWA Environmental Guideline: Revegetation - Topsoil Management (Doc No. 6707/053) (MRWA, 2013c).

### **5.3 Decision Making Authorities and Approval Requirements**

The key environmental approvals and licences required for this proposal are identified in Table 5.2. This shows the statute and agencies responsible for the approvals.

### **5.4 Principles of Environmental Protection**

The five core principles under the EP Act have been considered throughout the development of the proposal. Each of the environmental protection principles considered are summarised in Table 5.3.



**Table 5.2 Environment and heritage approvals required**

Responsible agency	Statute	Approval required
Department of Aboriginal Affairs (DAA)	<i>Aboriginal Heritage Act 1972</i>	<p>Consultation will be undertaken with the South West Aboriginal Land and Sea Council, the Whadjuk Working Group and other Aboriginal informants.</p> <p>Section 18 consent is required when an Aboriginal heritage site (as defined under Section 5 of the AHA) is proposed to be disturbed.</p> <p>A Section 18 application will be submitted to the DAA during 2015 and will be assessed in parallel with this PER being assessed by DOTE and the EPA.</p>
Department of the Environment (DOTE)	<i>Environment Protection and Biodiversity Conservation Act 1999</i>	Referral under the Act is required in respect of the impact on MNES. This PER will be assessed by DOTE to obtain the necessary environmental approval.
Environmental Protection Authority (EPA)	<i>Environmental Protection Act 1986 – Part IV</i>	Referral under the Act is required if the proposal will have a significant environmental impact. This PER will be used by the EPA as part of the assessment of the proposal.
Department of Water (DOW)	<i>Rights in Water and Irrigation Act 1914 (RIWI Act)</i>	<p>Consultation will be undertaken with DOW throughout the planning process and in conjunction with water licence applications.</p> <p>A Section 5C licence to take groundwater may be required for construction purposes. An application is likely to be submitted during 2016, prior to construction and once the final design has been undertaken.</p> <p>A Section 26D licence to construct a well for dewatering may be required for construction purposes. This application will be dependent on the location of dewatering. An application is likely to be submitted during 2016, prior to construction and once the final design has been undertaken.</p>
Government of Western Australia	<i>Land Administration Act 1997</i>	<p>Development activities can only be undertaken in conservation reserves if they are consistent with the purpose for which the land was reserved. The Gngangara–Moore River State Forest (State Forest No. 65) is reserved for the purpose of State Forest and Reserves 46919 and 46920 are reserved for the purpose of conservation of flora and fauna. The proposal will intersect these three conservation estates. However, the proposal is not consistent with the current purpose of the reserved land and a proposal to excise areas of Gngangara-Moore River State Forest, Reserve 46920 and Reserve 46919 will be submitted to Parliament under Section 45(4) of the Land Administration Act. Not all land proposed to be excised will be impacted by the proposal.</p> <p>Approval will be sought from the Minister for Environment to excise land from Class A reserves under Section 45(2) of the Land Administration Act. An application in this regard has been submitted to the Conservation Commission in 2014. Approval of this application is subject to the approval of this PER by DOTE and EPA.</p>



Responsible agency	Statute	Approval required
Western Australian Planning Commission (WAPC)	<p data-bbox="432 383 624 472"><i>Planning and Development Act 2005</i></p> <p data-bbox="432 495 603 584">Metropolitan Region Scheme (MRS)</p>	<p data-bbox="679 383 1444 439">The MRS is a town planning scheme for land use in the Perth metropolitan area.</p> <p data-bbox="679 461 1444 584">The MRS defines the future use of land, dividing it into broad zones and reservations. It requires local government town planning schemes to provide detailed plans for their part of the region. These schemes must be consistent with the MRS.</p> <p data-bbox="679 607 1444 696">It has been in operation since 1963 and provides the legal basis for planning in the Perth metropolitan region. To plan for changing needs, the Metropolitan Region Scheme map is amended frequently.</p> <p data-bbox="679 719 1444 875">Sections of the PDNH have progressively been included in the MRS since 1994. However, amendments to the MRS will be required to accommodate the development envelope as detailed in the PER, where necessary. An application to amend the MRS will be submitted to the WAPC during 2015 to allow for the alignment in the MRS.</p>

**Table 5.3 Consideration given to environmental principles**

Principle	Relevant? (yes/no)	Consideration given to principle	Relevant sections in PER
<p><i>1. The precautionary principle</i></p> <p>Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.</p> <p>In application of this precautionary principle, decisions should be guided by:</p> <p>(a) careful evaluation to avoid, where practicable, serious or irreversible damage to the environment; and</p> <p>(b) an assessment of the risk-weighted consequences of various options.</p>	<p>Yes</p>	<p>A wide range of comprehensive desktop and field studies to assess the impact of the proposal on environmental factors were undertaken as part of the PER. Studies included:</p> <ul style="list-style-type: none"> <li>• Flora and vegetation.</li> <li>• Terrestrial fauna.</li> <li>• Hydrological processes and inland waters environmental quality.</li> <li>• Amenity (noise and vibration).</li> <li>• Heritage (Aboriginal and European).</li> <li>• Air quality.</li> </ul> <p>Information gathered during these studies was used to inform the PER and has reduced the uncertainty surrounding the prediction of impacts for the assessment.</p> <p>MRWA has ensured that the proposal’s design (where possible) avoids serious or irreversible damage to the environment. Various studies have been undertaken since 1991 to identify the preferred alignment for the PDNH. As part of the alignment definition, potential physical constraints on the alignment were considered. These included topography, development and major infrastructure, defence facilities, watercourses, wetlands, rare flora, indigenous and non-indigenous heritage sites (GHD, 2010). A preferred design option has been recommended taking into account engineering, environmental and heritage investigations as well as consultation.</p> <p>Environmental impacts have been identified and described under each key environmental factor and mitigation and management measures have been proposed to ensure impacts are environmentally acceptable.</p>	<p>Chapters 7 to 15</p> <p>Chapters 3 and 4</p> <p>Chapters 8 to 15</p>

Principle	Relevant? (yes/no)	Consideration given to principle	Relevant sections in PER
		The precautionary principle has been applied through incorporating a drainage strategy along the length of the alignment to ensure the maintenance of hydrological flows.	
<p><i>2. The principle of intergenerational equity</i></p> <p>The present generation should ensure that the health, diversity and productivity of the environment is maintained and enhanced for the benefit of future generations.</p>	Yes	<p>The proposal will ensure the health, diversity and productivity of the environment is maintained through the creation of an offset area to mitigate the impacts.</p> <p>The objective for the proposal's offset strategy is to achieve a net environmental benefit once the proposal has been implemented. To achieve this objective a number of different offsets are proposed to address the various residual impacts and formulate the offset package for this proposal.</p>	Chapter 17
<p><i>3. The principle of the conservation of biological diversity and ecological integrity</i></p> <p>Conservation of biological diversity and ecological integrity should be a fundamental consideration.</p>	Yes	<p>The proposal design has given consideration to avoiding areas of high biological diversity or maintaining biological diversity by minimising the impact on flora, vegetation, wetlands and fauna habitats as far as possible.</p> <p>Impacts on flora, vegetation and terrestrial fauna have been assessed and mitigation and management measures proposed.</p>	Chapters 3, 8 and 9

Principle	Relevant? (yes/no)	Consideration given to principle	Relevant sections in PER
<p><i>4. Principles relating to improved valuation, pricing and incentive mechanisms</i></p> <p>(a) Environmental factors should be included in the valuation of assets and services.</p> <p>(b) The polluter pays principle – those who generate pollution and waste should bear the cost of containment, avoidance and abatement.</p> <p>(c) The users of goods and services should pay prices based on the full life cycle costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste.</p> <p>(d) Environmental goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, which enable those best placed to maximise benefits and/or minimise costs to develop their own solutions and responses to environmental problems.</p>	Yes	<p>Through the Infrastructure Sustainability Council of Australia (ISCA) framework the proposal has developed concepts through the design phase to protect the environment and the sustainability of the proposal. The proposal’s design has incorporated measures to ensure containment and abatement of pollution, particularly as part of stormwater management structures.</p> <p>The ISCA framework encourages the implementation of best-practice and innovative sustainability solutions to deliver long-term environmental, social and economic benefits.</p> <p>In addition, any waste materials that are able to be reused such as asphalt profiling, concretes and soils will be sent to a recycling depot.</p>	Chapter 10
<p><i>5. The principle of waste minimisation</i></p> <p>All reasonable and practicable measures should be taken to minimise the generation of waste and its discharge into the environment.</p>	Yes	<p>The UPDC for the proposal includes drainage design to minimise the discharge of contaminated water into the environment. Approximately 74 water retention and infiltration basins have been designed along the alignment to control and capture runoff from the road and associated landscaping. Retention basins vary in size and are designed to accommodate surface runoff.</p> <p>The Environmental Management Plan (EMP) for the proposal includes management strategies to ensure that the generation of waste during the construction phase is minimised. All activities are to be carried out with the principles of cleaner production and waste minimisation.</p>	Chapter 4

Principle	Relevant? (yes/no)	Consideration given to principle	Relevant sections in PER
<i>6. Principle of best practice</i>	Yes	<p>Mitigation and management measures proposed in this PER were based on contemporary best practice in environmental management and construction disciplines. Particularly in the design of fauna underpasses to retain habitat connectivity, as well as the design of appropriate bridge structures to minimise the impact on specific flora taxa.</p> <p>The draft Environmental Management Plan is consistent with other management plans that are currently being implemented on similar proposals elsewhere in WA.</p>	Chapter 8 and 9
<i>7. Principle of continuous improvement</i>	Yes	<p>The implementation of the Environmental Management Plan incorporates review and auditing procedures to be undertaken on a regular basis. The aim of these procedures are to continuously identify areas for improvement in environmental management procedures and performance during, particularly, the construction phase.</p>	



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## 6 STAKEHOLDER CONSULTATION

### 6.1 Stakeholder Engagement Objectives

MRWA is committed to utilising the knowledge, views and expertise of the community and stakeholders to guide sustainable outcomes in its decision making process as demonstrated by its Community Engagement Policy (MRWA, 2008). The key principles of this policy are respect, transparency, diversity, accountability, early engagement and leadership.

In accordance with this policy, a considerable amount of community and stakeholder engagement has been undertaken during the development of this proposal, both during historical alignment definition studies and as part of the current community and stakeholder engagement process. This has ensured that there is an agreed understanding of the local issues in relation to the proposal and that these issues have informed the proposal's design, subject to the proposal's constraints.

All community and stakeholder engagement has been undertaken in accordance with a Community and Stakeholder Engagement Plan to ensure alignment with MRWA policy. The objectives of the current Community and Stakeholder Engagement Plan are detailed in Table 6.1 (Estill, 2014).

**Table 6.1 Engagement objectives**

Key policy principles	Project engagement objectives
Transparent communication builds trust and reduces conflict.	Relationships with stakeholders and the community are built through timely and open communication. Commitments throughout the proposal are followed through efficiently and effectively.
Informed and diverse participation leads to meaningful input.	Processes are designed to allow for difference and a diverse range of stakeholder and community members to participate.
Meaningful community and stakeholder input increases the quality of decisions.	Input from engagement activities are incorporated into the final decision to the maximum extent possible. Decisions deliver a high value to the public.
Engagement is enabled by leadership at all levels.	Systems, culture and decision making supports quality engagement planning, delivery, evaluation and continuous improvement.
Planning and resourcing supports engagement.	Appropriate time, finances and people are allocated to projects to manage engagement activities and ensure quality outcomes.

Source: Estill (2014).

### 6.2 Stakeholder Engagement Activities

Engagement with stakeholders and members of the community is regarded as a critical component of the proposal. Stakeholders were identified through previous engagement processes undertaken as part of planning studies for the proposal. A database of key stakeholders has been established to record comments and any documented responses or commitments made during the process. Stakeholders include all three levels of government, landowners, residents, business owners and operators, environmental interest groups, community members, the freight industry, road users and cyclists (Estill, 2014). Figure 6.1 provides a summary of the various stakeholder engagement groups and their membership.

**NORTHLINK WA**  
Project Team  
MRWA and Consultant Team



**Role:**

- Representative community and interest group input
  - Identify project matters for resolution
    - Inform the resultant design
  - Act as a sounding board on relevant matters

Communities of interest (interested observers)





Stakeholder consultation and engagement has been facilitated through:

- Community ‘drop-in’ sessions held at various locations along the corridor including:
  - Morley Galleria.
  - Altone Park Shopping Centre.
  - Ballajura Library.
  - Ellenbrook Library.
  - Ellenbrook Shopping Centre.
  - Bullsbrook IGA.
  - Muchea IGA.
- Three Community Reference Groups.
- Environmental Reference Group.
- Freight and Road User Group.
- Drainage Reference Group.
- Safe Systems Working Group.
- Project Enabling Group involving and informing key government stakeholders.
- Community, business and special group meetings and briefings.
- Government agency briefing and project development sessions.
- A number of Project Newsletters.
- A 1800 Information Line.
- A project webpage ([www.northlinkwa.com.au](http://www.northlinkwa.com.au)).
- A project email address.

Further meetings are scheduled between now and September for the Project Enabling Group, the Freight and Road User Group, the Environmental Reference Group and the South/Central/North Community Reference Groups. An outcomes display is also proposed for late 2015.

### **6.3 Issues Raised by Stakeholders**

A number of issues or comments have been raised by stakeholders throughout the proposal’s development, including issues relating to the feasibility of various route alignments and the social, economic and environmental concerns associated with these. A summary of the key issues raised is provided in Table 6.2.

**Table 6.2 Key stakeholder issues**

Area of interest	Key issues raised	Response
Proposal planning	<ul style="list-style-type: none"> <li>• Support for the proposal.</li> <li>• Doubt that the proposal will proceed.</li> <li>• Timing of the proposal.</li> <li>• Concern at the time to completion (by 2019).</li> <li>• The extent of the resultant proposal footprint.</li> <li>• Use of the former PDNH reservation along Lord St and Drumpellier Drive and potential to return it to public use at Whiteman Park.</li> <li>• Suggested realignment of the PDNH corridor further west to avoid the direct interface with residents of Ellenbrook.</li> </ul>	<ul style="list-style-type: none"> <li>• Background to the proposal, including justification for its development is outlined in Chapter 2.</li> <li>• Details regarding the historic development of the proposal are in Chapter 3.</li> <li>• The detailed description of the proposal is in Chapter 4.</li> </ul>
Flora	<ul style="list-style-type: none"> <li>• Impacts on remnant native vegetation.</li> <li>• Loss of vegetation and trees within the road reserve.</li> <li>• Identification and protection of TEC and other ecological communities along the corridor.</li> <li>• Impacts for flora and fauna from changing surface water, runoff and drainage regimes.</li> <li>• Measures to identify and assess areas impacted by dieback.</li> <li>• Topsoil management and use of degraded topsoil or topsoil containing dieback as base level fill and covered.</li> <li>• Revegetation strategies.</li> <li>• Expand offsets to include rehabilitation of degraded land.</li> </ul>	<ul style="list-style-type: none"> <li>• Impacts related to flora and vegetation are addressed in Section 8.6.</li> <li>• Management measures relating to dieback are included in Section 8.6.</li> <li>• Strategies relating to revegetation are discussed in Section 12.3.</li> <li>• The relevant offsets for the proposal are discussed in Chapter 17.</li> </ul>

Area of interest	Key issues raised	Response
Fauna	<ul style="list-style-type: none"> <li>• Impacts on fauna movement corridors for terrestrial fauna and birds.</li> <li>• Impacts on reptiles in the proposal area.</li> <li>• Impacts on Black Cockatoos.</li> <li>• Bird strikes as a result of vehicle collisions during flyover or as a result of road foraging.</li> </ul>	<ul style="list-style-type: none"> <li>• Impacts relating to fauna are addressed in Section 9.6.</li> <li>• Impacts to Black Cockatoos are addressed in Sections 9.6 and 16.4.</li> </ul>
Hydrology	<ul style="list-style-type: none"> <li>• Proposals for managing an extreme flood event.</li> <li>• Seek local infiltration solutions generally and manage flows locally without piping it to other areas or main drains.</li> <li>• Protect potable water quality by understanding and diverting stormwater away from production bores – spillage, hydrocarbons, weed management spraying etc. with provision for emergency response to allow for effective clean up.</li> <li>• Recognise the long-term maintenance impacts and costs.</li> <li>• Adopting the appropriate technologies and treatment options.</li> <li>• Impacts for water self-sufficiency of Cyrenian House.</li> <li>• Impact for the Priority One water mound.</li> <li>• Impacts for Muchea residents and others reliant upon ground water as a potable water supply source.</li> <li>• Protect existing bores from spills and other impacts.</li> <li>• Ensure compliance with relevant water quality guidelines and standards and be informed by the Gnangara Water and Land Management Strategy.</li> <li>• Maintain sheet flow characteristics in the northern section to avoid local flooding and inundation outcomes resulting from the proposal.</li> </ul>	<ul style="list-style-type: none"> <li>• Impacts to surface and groundwater are addressed in Section 10.6.</li> </ul>

Area of interest	Key issues raised	Response
Wetlands	<ul style="list-style-type: none"> <li>• Impacts on historic and planned wetland rehabilitation work undertaken by volunteers.</li> <li>• The potential role for community groups to play a part in identifying, restoring or even potentially managing rehabilitated wetlands.</li> <li>• Need for wetland connectivity to maintain the integrity of the existing wetland network.</li> <li>• Long-term protection and management of wetlands is a critical catchment management task for the future.</li> <li>• Wetland protection should be a priority wherever possible.</li> </ul>	<ul style="list-style-type: none"> <li>• General impacts to wetlands are addressed in Section 10.4.6.</li> <li>• Wetland vegetation is discussed in Section 8.2.</li> </ul>
Aboriginal and European Heritage	<ul style="list-style-type: none"> <li>• Identification and protection and/or recognition of sites of Aboriginal or European heritage value.</li> </ul>	<ul style="list-style-type: none"> <li>• Impacts to heritage are discussed in Section 13.5 and 14.5.</li> </ul>
Noise	<ul style="list-style-type: none"> <li>• Noise impact for the communities of Beechboro, Noranda, Bennett Springs, Ballajura, Ellenbrook and rural properties.</li> <li>• Residential noise impacts.</li> <li>• Concern about the already high noise levels and the lack of existing noise mitigation measures.</li> <li>• Noise mitigation measures.</li> </ul>	<ul style="list-style-type: none"> <li>• Noise impacts are discussed in Section 11.5.</li> </ul>

Area of interest	Key issues raised	Response
Amenity	<ul style="list-style-type: none"> <li>• Impact on the recreational area under the Gngara Park Management Plan.</li> <li>• Concern that the sensitivities and importance of Cyrenian House facility (Rick Hamersley Centre) may not be recognised.</li> <li>• Retention of kangaroos, birds and wildlife and other fauna as a valued and positive benefit of the current location of Cyrenian House with fauna movement through the site.</li> <li>• Concern at the severance and other impacts for Whiteman Park.</li> <li>• Concern at the introduction of a highway/freeway standard road in a rural area in the northern section.</li> <li>• Visual and proximity impacts.</li> </ul>	<ul style="list-style-type: none"> <li>• Amenity impacts relating to Dick Perry Reserve and Whiteman Park are discussed in Section 15.5.</li> <li>• Impacts on Cyrenian House were discussed in detail with the centre. The proposal design allows for sufficient access to the centre, as well as emergency access.</li> <li>• Fauna movement corridors are addressed in Section 9.5.8.</li> <li>• Visual and social impacts were not identified in the ESD as a key environmental factor and are therefore not considered further.</li> </ul>
Social	<ul style="list-style-type: none"> <li>• The distance of the new highway from existing homes.</li> <li>• Visual impacts.</li> <li>• Crime and anti-social behaviour in residual land between noise walls and property boundaries – use of residual space.</li> <li>• Concern at the loss of passing trade and commercial opportunities for Mucnea businesses and in particular the IGA store.</li> <li>• Impacts for business access to GNH at the northern reconnection point near Mucnea.</li> </ul>	<ul style="list-style-type: none"> <li>• Noise and vibration impacts are discussed in Section 11.5.</li> <li>• Visual and social impacts were not identified in the ESD as a key environmental factor and are therefore not considered further.</li> </ul>



The community and stakeholder engagement program has increased awareness of the proposal and enabled stakeholders the opportunity to inform and influence the proposal's design and management. MRWA is committed to ongoing engagement throughout the proposal's development to ensure a sustainable outcome is achieved that minimises environmental and social impacts. A number of proposal design decisions were influenced by consultation with stakeholders as described in Chapter 4.



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## 7 ENVIRONMENTAL IMPACT ASSESSMENT FRAMEWORK

### 7.1 Introduction

In accordance with the ESD (EPA, 2014a) (see Appendix B), a number of studies were undertaken to assist with the preparation of this PER. The preliminary key environmental factors relevant to the proposal, as set out in the ESD, are:

- Flora and Vegetation.
- Terrestrial Fauna.
- Hydrological Processes and Inland Waters Environmental Quality.
- Amenity – Noise and Vibration.
- Rehabilitation and Decommissioning.
- Offsets.

These preliminary key environmental factors are discussed in Chapters 8, 9, 10, 11, 12 and 17.

In addition to the above preliminary key environmental factors, the ESD requires the following other environmental issues to be considered:

- Heritage.
- Amenity – including Dick Perry Reserve and Whiteman Park.

These other environmental factors are discussed in Chapters 13, 14 and 15.

Matters protected under the EPBC Act, including MNES and environmental values on Commonwealth land, are discussed separately in Chapter 16.

### 7.2 EPA Significance Framework


The EPA determines environmental objectives for each key environmental factor and these are described in Environmental Assessment Guideline 8 – Environmental Factors and Objectives (EAG 8) (EPA, 2015a). These objectives describe the desired goal that, if met, indicates that the proposal is not expected to have a significant impact on the particular factor.

The EPA Environmental Assessment Guideline 9 – Application of a Significance Framework in the Environmental Impact Assessment (EIA) Process (EAG 9) (EPA, 2015b) describes the use of the guideline by the EPA in determining the likely significance of a proposal throughout the EIA process. This significance framework also applies to the assessment of each key environmental factor.

The EPA's framework is a 'risk-based' approach to the extent that the primary focus of the assessment is on understanding the likely 'significance' (which is similar to 'consequence' in traditional risk assessment terminology) of the environmental impacts of a proposal.

In applying the framework, two threshold levels have been determined by the EPA to describe the likely significance:

- The level at which the proposal is likely to have a significant effect on the environment. If the impact from a proposal does not exceed this level, it is considered to meet the EPA's objective for a specific



factor. Where impacts exceed this level, proposals are considered to potentially meet the EPA's objectives.

- The level at which the proposal is likely to have an unacceptable effect on the environment. If the impact from a proposal exceeds this level, it is considered unlikely to meet the EPA's objective for a specific factor.

Where impacts are determined to have a significant or unacceptable effect on the environment, mitigation and management measures are developed, which follows a hierarchical approach to manage the potential impacts:

- Avoidance: measures taken to avoid the impact altogether.
- Minimisation: measures taken to reduce duration, intensity or extent of impact.
- Rehabilitation/restoration: measures taken to repair, rehabilitate or restore degraded areas.
- Offset: measures taken to compensate for any significant residual impact.

The above framework is then applied again to demonstrate that the impact on a particular environmental factor has been reduced to a level where the proposal is likely to meet the EPA's objective.

### **7.3 Assessment Approach**

The impact assessment approach adopted for this PER is a five-step process:

1. Identify potential impacts.
2. Assess the significance of potential impacts.
3. Establish avoidance, mitigation and management measures.
4. Assess and describe the residual impacts. Residual environmental impacts are those that remain after avoidance, mitigation and management measures have been applied.
5. Determine environmental offsets, where required, to counter-balance significant residual impacts.

The significance of impacts on an environmental factor under this approach is determined through consideration of a number of criteria, including:


- The values, sensitivity and quality of environmental factors on which the proposal is likely to have an impact.
- The extent (intensity, duration, magnitude and geographic footprint) of the likely impacts.
- The consequence of the impacts.
- The resilience of the environment to cope with the impacts.

The prediction and evaluation of the key impacts was based on knowledge of the existing environment likely to be affected, the results of specialist studies and monitoring programs, experience gained from similar projects in comparable environmental settings and professional judgement.

### **7.4 Reliability of Information**

A number of surveys and studies were conducted in support of the PER. All studies were undertaken consistent with relevant technical guidelines, policies and legislation, and appropriate levels of rigour applied in conducting these surveys. Individuals and third-party consultants with appropriate experience and relevant expertise in the area of investigation were contracted to undertake these surveys and studies.





The supporting reports, most of which are included as appendices, discuss the reliability of the data, including the degree of certainty, assumptions, limitations of the technical data. Where appropriate, sources of authority and other information used are cited.

The development and refinement of the proposal's design over time may have resulted in minor inconsistencies between the PER and supporting study reports, for example in relation to areas and distances. The definition of terms to denote project or study areas in these studies may also differ from the terms 'proposal footprint' and 'development envelope' used in the PER. As supporting studies were reworked as needed for any significant changes during the development of the proposal, any remaining inconsistencies between the studies appended to this PER and the relevant sections of this PER have been reviewed and are not considered to affect the outcome of the impact assessment.

A peer review of the PER was undertaken to ensure that the results and findings presented complied with requirements for surveys and studies, and that the PER adhered to relevant guidelines and expectations of regulators.

## **7.5 Structure of Impact Assessment**

The following chapters discuss the impacts to the biological and physical environment of the proposal footprint. Impacts are discussed under each key environmental factor. Each chapter describes the EPA's objectives for the factor (where relevant), the existing environment, any predicted impacts that may occur, the management strategies that will be used to mitigate the impacts and finally the residual impact.

The 746 ha proposal footprint includes 47 ha of Commonwealth land. While Chapters 8 to 15 consider the entire proposal footprint, Chapter 16 focuses only on impacts to matters protected under the EPBC Act; that is, impacts to Matters of National Environmental Significance across the entire proposal footprint, and impacts to the environment on the 47 ha of Commonwealth land within the proposal footprint.

The potential impacts, management and mitigation strategies and the residual impacts are summarised in a table at the end of each chapter.

To ensure that impacts are minimised and that the relevant EPA objectives can be met, MRWA has committed to achieving a number of environmental outcomes. While various management measures are proposed in this PER to achieve these desired outcomes, alternative management strategies may arise with further design, investigations and proposal planning. The construction of the proposal will be the subject of a competitive tender process and the cost for mitigation measures have therefore not been included in this PER. MRWA is committed to achieving environmental outcomes through the implementation of appropriate management measures that are relevant to specific conditions on-site, and which may vary from those described in this document. This approach is consistent with the Environmental Assessment Guideline for Recommending Environmental Conditions (EPA, 2013a). The environmental commitments for each key factor are detailed in the management and mitigation section of each chapter.



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