



**Public Transport
Authority**



Environmental Scoping Document

Malaga to Ellenbrook Rail Works Proposal

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ENVIRONMENTAL SCOPING DOCUMENT

Proposal name:	Malaga to Ellenbrook Rail Works
Proponent:	Public Transport Authority of Western Australia
Assessment number:	2238
Location:	Between the suburbs of Malaga and Ellenbrook
Local Government Area:	City of Swan
Public review period:	Environmental Review Document – 2 weeks
EPBC reference no:	2019/8546

1. Introduction

The Public Transport Authority of Western Australia (PTA) is proposing to develop the Malaga to Ellenbrook Rail Works (the Proposal, as summarised above) in the north-eastern suburbs of Perth as part of the new Morley-Ellenbrook Rail line. The Proposal is one of several METRONET projects which aim to improve and integrate the public transport network and align with the State Government's vision for future land use planning in Western Australia. The rail line will be constructed from the new Malaga train station and terminate at the new Ellenbrook train station. The Proposal will connect to the Bayswater to Malaga Rail Works project which was previously referred to the Environmental Protection Authority (EPA) as a separate proposal.

The EPA has determined that the proposal is to be assessed under Part IV of the *Environmental Protection Act 1986* (EP Act). The decision to assess the proposal was made on 18 February 2020 and the level of assessment was set at Public Environmental Review.

The EPA determined that the proponent should prepare the Environmental Scoping Document (ESD). The purpose of the ESD is to define the form, content, timing and procedure of the environmental review, required by s. 40(3) of the EP Act. This ESD has been prepared by the PTA in consultation with the EPA, decision making authorities and interested agencies consistent with the EPA's *Procedures Manual*.

Form

The EPA requires that the form of the report on the environmental review required under s. 40 (Environmental Review Document (ERD)) is according to the Environmental Review Document template (refer to the EPA's *Instructions on how to prepare an Environmental Review Document*, EPA, 2020).

Content

The EPA requires that the environmental review includes the content outlined in Sections 2 to 6 of this ESD.

Timing

Table 1 sets out the timeline for the assessment of the Proposal agreed between the EPA and the proponent.

Table 1: Assessment Timeline

Key Assessment Milestones	Completion Date
EPA Approves Environmental Scoping Document	23 April 2020
Proponent submits first draft Environmental Review Document	15 June 2020
EPA provides comment on first draft Environmental Review Document (3 weeks from receipt of ERD)	15 July 2020
Proponent submits revised draft Environmental Review Document	22 July 2020
EPA authorises release of Environmental Review Document for public review (2 weeks from EPA approval of ERD following review)	3 August 2020
Proponent releases Environmental Review Document for public review for 2 weeks	4 August 2020
Close of public review period	18 August 2020
EPA provides Summary of Submissions (2 weeks from close of public review period)	25 August 2020
Proponent provides Response to Submissions (4 weeks from receipt of Summary of Submissions)	1 September 2020
EPA reviews the Response to Submissions (2 weeks from receipt of Response to Submissions)	15 September 2020
Proponent finalises Response to Submissions	22 September 2020
EPA prepares draft assessment report and completes assessment	1 October 2020
EPA finalises assessment report (including two weeks consultation on draft conditions) and gives report to Minister	26 October 2020

Procedure

The EPA requires the proponent to undertake the environmental review according to the procedures in the *Administrative Procedures* and the *Procedures Manual*, including requirements for public review.

This ESD has not been released for public review. The ESD will be available on the EPA website (www.epa.wa.gov.au) upon endorsement and must be appended to the ERD.

Assessment as an accredited assessment (EPBC 2019/8546)

The proposal is being assessed under a State level Public Environmental Review process with two weeks of public review, which provides for prevention, minimisation and management of any relevant impacts. The proposal is also subject to local or State government planning schemes and policies as described in Section 6. The proposal has been referred and determined to be a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and is being assessed as an accredited assessment. The relevant matters of national environmental significance (MNES) for the proposal are:

- Listed threatened species and communities (sections 18 and 18A).

This ESD includes work required to be carried out and reported on in the ERD in relation to MNES. The ERD will also address the matters in Schedule 4 of the *Environment Protection and Biodiversity Conservation Regulations 2000*.

MNES that may be impacted by the proposal will be identified and the potential impacts on these matters addressed within each relevant preliminary environmental factor as identified in Table 4. The ERD will include a separate section which summarises the potential impacts on MNES and describes, to the extent practicable, any feasible alternatives to the proposed action and possible mitigation measures. Proposed offsets to address significant residual impacts on MNES are also to be discussed.

2. The Proposal

The subject of this ESD is the proposal by the PTA to construct and operate a 13 kilometre new dual railway track which spurs off the proposed Bayswater to Malaga Rail Works line, and includes the construction and operation of three new stations at Malaga, Whiteman Park and Ellenbrook with intermodal rail, bus, carpark, and active mode (cycling and walking) facilities at each station. A potential future station is also proposed at Bennett Springs. The regional location of the proposal is shown in Figure 1 and the development envelope encompassing the physical elements of the proposal is delineated in Figure 2.

The ERD is to include a section that sets out how the PTA evaluated, compared and considered alternative route alignments and construction methods during the planning phase of the proposal to avoid and minimise the extent of potential environmental impacts, particularly on biodiversity values.

A summary and the key characteristics of the proposal are set out in Tables 2 and 3. The key proposal characteristics may change as a result of the findings of studies and investigations conducted and the application of the mitigation hierarchy by the proponent.

The proposal is part of the Western Australian Government's vision to implement and build METRONET, which will aid in transforming Perth's public transport network (METRONET 2019). The long-term vision (i.e. to 2050) is for a public transport network to support a population of 3.5 million people.

Table 2: Summary of the proposal

Item	Details
Proposal Title	Malaga to Ellenbrook Rail Works
Proponent Name	Public Transport Authority of Western Australia
Short Description	The Proposal is to construct and operate a 13 km new dual railway track, which connects to the Bayswater to Malaga Rail Works. The Proposal includes the construction and operation of three new stations at Malaga, Whiteman Park and Ellenbrook, with provision for a future Bennett Springs East Station.

Table 3: Location and proposed extent of physical and operational elements

Element	Location	Proposed extent
<i>Physical Elements</i>		
Permanent Infrastructure, Including: Railway tracks and associated infrastructure Malaga Station Future Bennett Springs East Station Whiteman Park Station Ellenbrook Station Construction laydown and access areas Principal shared path, drainage structures, fencing, bridges, noise walls	<p><u>Construction of railway tracks and associated infrastructure</u> A 13 km dual track railway which connects to the proposed Bayswater to Malaga railway track. The railway track extends from the eastern edge of the Tonkin Highway road reserve heading generally east across the Marshall Road paddocks of Whiteman Park. In Bennett Springs, the railway alignment turns to the north to run adjacent to Drumpellier Drive (formerly Lord Street), passing under Gnangara Road and turning to the northeast to terminate at Ellenbrook Station (Figure 2).</p> <p><u>Construction of railway stations and associated facilities</u> Including intermodal rail, bus, ‘park and ride’, ‘kiss and ride’ and active mode (walking/cycling) facilities.</p> <p><i>Malaga Station</i> Located approximately 500 m east of Tonkin Highway, west of Beechboro Road North (Figure 2).</p> <p><i>Future Bennett Springs East Station</i> Provision for a future station in the general vicinity of Dulwich Street in Bennett Springs (Figure 2).</p> <p><i>Whiteman Park Station</i> Located approximately 4.5 km northeast of the proposed Malaga Station. Adjacent to the intersection of Drumpellier Drive (formerly Lord Street) and Whiteman Drive East in Whiteman Park (Figure 2).</p> <p><i>Ellenbrook Station</i> Located approximately 6 km north of the proposed Whiteman Park Station, south of The Parkway in the town centre of Ellenbrook (Figure 2).</p> <p><u>Construction and Access Areas</u> Where practicable the PTA will locate construction and access areas in areas of existing or planned future disturbance.</p>	<p>Clearing and disturbance of no more than 313 hectares (ha) that includes up to:</p> <ul style="list-style-type: none"> • 123 ha of native vegetation in Degraded or better condition. • 190 ha of vegetation in Completely Degraded condition <p>within a 501 (ha) development envelope,</p>

Element	Location	Proposed extent
Operational Elements		
Rail and Bus Services	A passenger railway is proposed to operate as an extension to the proposed Bayswater to Malaga Rail Works, extending 13 km to Ellenbrook. Rail and bus services are proposed to operate at Malaga Station, Bennett Springs East Station (future station), Whiteman Park Station and Ellenbrook Station.	.

3. Preliminary key environmental factors and required work

The preliminary key environmental factors for the environmental review are:

1. Flora and Vegetation.
2. Terrestrial Fauna.
3. Terrestrial Environmental Quality.
4. Inland Waters.
5. Social Surroundings.

Table 4 outlines the work required for each preliminary key environmental factor and contains the following elements for each factor:

- **EPA factor** and **EPA objective** for that factor.
- **Relevant activities** – the proposal activities that may have a significant impact on that factor.
- **Potential impacts and risks** to that factor.
- **Required work** for that factor.
- **Relevant policy and guidance** – EPA (and other) guidance and policy relevant to the assessment.

The following EPA guidance applies to all factors:

- *Statement of Environmental Principles, Factors and Objectives* (EPA 2016).
- *Instructions and Template: Part IV Environmental Management Plans* (EPA 2016).

Table 4: Preliminary key environmental factors and required work

Flora and Vegetation	
EPA Objective	To protect flora and vegetation so that biological diversity and ecological integrity are maintained.
Relevant Activities	<ul style="list-style-type: none"> • Clearing of native vegetation. • Cut and fill works. • Soil compaction. • Construction of permanent and temporary infrastructure including but not limited to rail, roads, car parks, buildings, hard stand and laydown areas. • Operation of plant and machinery and service vehicles.

	<ul style="list-style-type: none"> • Operation and maintenance of the electrified railway line. • Temporary groundwater abstraction for construction water supply and temporary dewatering for construction purposes.
Potential Impacts and Risks	<ul style="list-style-type: none"> • Permanent loss of flora and vegetation through clearing. • Indirect impacts from dust, weeds, increased risk of bushfire, changes to surface water drainage flow patterns and infiltration during rainfall events and/or edge effects. • Impacts from the introduction and/or distribution of diseases, including phytophthora spp. dieback to surrounding bushland areas. • Fragmentation of intact vegetation including impacts to conservation significant ecological communities, and the potential for fragmentation of ecological linkages. • Potential indirect impacts to conservation significant ecological communities and groundwater dependant ecosystems from groundwater abstraction and dewatering. • Clearing of conservation significant flora which occur, or have a high likelihood of occurring, within the development envelope.
Required Work	<ol style="list-style-type: none"> 1. Identify and characterise the flora and vegetation that may be directly or indirectly impacted by the proposal, in accordance with <i>Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment</i>. Surveys should be designed to inform local and regional context. Surveys should also utilise the Department of Agriculture Water and the Environment (DAWE) Protected Matters Search Tool, where appropriate. 2. Demonstrate how surveys are relevant, representative and demonstrate consistency with current EPA policy and guidance. Ensure database searches and taxonomic identifications are up-to-date, If multiple surveys have been undertaken to support the assessment, a consolidated report should be provided including the integrated results of the surveys. All surveys should be appended to the environmental review documentation. <i>Note: Survey results and a demonstration of how the requirements have been met are to be included in the ERD. Where surveys were undertaken prior to scoping, justification should be provided to demonstrate that they are relevant and consistent with EPA Guidance. Where surveys have not been undertaken consistent with the EPA guidance provide a justification for any variation.</i> 3. Provide a figure depicting survey effort applied in relation to the study area and development envelope, identifying the direct and indirect impact areas. 4. Determine whether any flora species recorded are significant, and provide an analysis of local and regional context (refer to <i>Environmental Factor Guideline – Flora and Vegetation</i> for definition of significant flora). 5. Determine whether any vegetation identified is significant, and provide an analysis of local and regional context. 6. Provide figures depicting the recorded locations of flora and vegetation in relation to the development envelope in accordance with <i>Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment</i>.

7. Assess the potential direct and indirect impacts of the construction and operational elements of the proposal on identified environmental values. Describe and assess the extent of cumulative impacts as appropriate.
8. Provide a quantitative assessment of impact:
 - a. For significant flora, this includes:
 - i. number of individuals and populations in a local and regional context;
 - ii. numbers and proportions of individuals and populations directly or potentially indirectly impacted, and
 - iii. numbers/proportions/populations currently protected within the conservation estate (where known).
 - b. For all vegetation units (noting threatened and priority ecological communities and significant vegetation) this includes:
 - i. area (in hectares) and proportions directly or potentially indirectly impacted, and
 - ii. proportions/hectares of the vegetation unit currently protected within conservation estate (where known).

Note: Each *survey report* should be accompanied by an IBSA number, generated following acceptance of an IBSA data package via the IBSA submissions portal at <https://ibsasubmissions.dwer.wa.gov.au/#/>

9. Describe the application of the mitigation hierarchy in the proposal design, construction and operation. Detail actions to be undertaken to avoid, minimise and mitigate proposal impacts including revegetation of areas not required for permanent infrastructure. Include management and/or monitoring plans to be implemented pre- and post-construction to demonstrate that residual impacts are not greater than predicted. Management and/or monitoring plans are to be prepared in accordance with EPA instructions. Management Plans need to consider all relevant EPBC listed flora species, where appropriate.
10. Demonstrate how the proposal has had regard to, and is not inconsistent with, relevant recovery plans, conservation advice and threat abatement plans, particularly for the *Banksia Woodlands of the Swan Coastal Plain Threatened Ecological Community*. Describe how the proposal has considered the Significant Impact Guidelines 1.1. for all direct and indirect impacts to matters protected under the EPBC Act.
11. Demonstrate how the EPA's objective for this factor has been addressed.
12. Determine and quantify any significant residual impacts by applying the residual impact significance model (page 11) and WA Offset Template (Appendix 1) in the WA Environmental Offsets Guidelines (2014) and include reference to the Commonwealth Assessment Guide for any MNES.
13. Where significant residual impacts remain, propose an appropriate offsets package that is consistent with the WA Environmental Offsets Policy and Guidelines. Spatial data defining the area of significant residual impacts for each environmental value should also be provided (e.g. vegetation type, vegetation condition, specific fauna species habitat).
14. Propose an appropriate offset package consistent with the EPBC Act Environmental Offsets Policy and the Commonwealth Environmental Offsets Assessment Guide, including rationale for the values entered into the guide. Propose an appropriate offsets package consistent with the EPBC Act Environmental Offsets Policy for predicted significant residual impacts to

	<p>EPBC listed species or TECs. Demonstrate how the proposed offset is consistent with each of the principles of the Commonwealth Environmental Offsets Policy in addition to providing a rationale for the values entered into the offset guide. Spatial data defining the area of significant residual impacts for each environmental value should also be provided (e.g. vegetation type, vegetation condition, specific fauna species habitat).</p>
<p>Relevant Policy and Guidance</p>	<p><i>EPA Policy and Guidance</i></p> <ul style="list-style-type: none"> • <i>Instructions on how to prepare an Environmental Review Document</i> (EPA, 2016) • <i>Environmental Factor Guideline – Flora and Vegetation</i> (EPA, 2016) • <i>Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment</i> (EPA, 2016) • Instructions: IBSA Data Packages • <i>Guidance Statement 6 – Rehabilitation of Terrestrial Ecosystems</i> (EPA, 2006). • <i>Environmental Protection Bulletin 20 – Protection of naturally vegetated areas through planning and development</i> (EPA, 2013). <p><i>Other policy and guidance</i></p> <ul style="list-style-type: none"> • Significant Impact Guidelines 1.1 - Matters of National Environmental Significance, Commonwealth of Australia (DEWHA, 2013). • EPBC Referral Guidance - <i>Banksia Woodlands of the Swan Coastal Plain Ecological Community</i> (DotEE, 2019). • Banksia Woodlands of the Swan Coastal Plain: A Nationally Protected Ecological Community (DotEE, 2016). • Approved Conservation Advice (incorporating listing advice) <i>for the Banksia Woodlands of the Swan Coastal Plain Ecological Community</i> (DotEE, 2016). • Survey guidelines for Australia's threatened orchids: Guidelines for detecting orchids listed as 'Threatened' under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (DEWHA, 2013). • Grand Spider Orchid (<i>Caladenia huegelii</i>) Recovery Plan (DEWHA, 2009). • Threat abatement plan for disease in natural ecosystems caused by <i>Phytophthora cinnamomi</i>, (DotE, 2014). • Environmental Management Plan Guidelines, (DotE, 2014). • State Planning Policy No. 2.8 Bushland Policy for the Perth Metropolitan Region (WAPC, 2010). • Geomorphic Wetlands Swan Coastal Plain Dataset (DBCA, 2020). • <i>Environment Protection and Biodiversity Conservation Act 1999</i> Environmental Offsets Policy (DSEWPAC, 2012). • Western Australian Environmental Offsets Policy (Government of Western Australia, 2011). • Western Australian Environmental Offsets Guidelines (Government of Western Australia, 2014). • Western Australian Environmental Offsets Template (Government of Western Australia, 2014).

	<ul style="list-style-type: none"> • <i>Slender Andersonia (Andersonia gracilis) Interim Recovery Plan 2006-2011. Interim Recovery Plan No. 228.</i> Department of Environment and Conservation, Western Australia (DEC, 2006). • <i>Approved Conservation Advice for Eleocharis keigheryi (Keighery's Eleocharis).</i> Canberra: Department of the Environment, Water, Heritage and the Arts. (DoEWHA, 2008). • <i>Approved Conservation Advice for Lepidosperma rostratum (Beaked Lepidosperma).</i> Canberra: Department of the Environment, Water, Heritage and the Arts. (DEWHA, 2008). • <i>Approved Conservation Advice for Hydatella dioica (One-sexed Hydatella).</i> Canberra: Department of the Environment, Water, Heritage and the Arts. (DEWHA, 2008). • <i>How to use the Offsets assessment guide.</i> Department of Sustainability, Environment, Water, Population and Communities (DSWPC, 2012). • Relevant recovery plans, conservation advices and/or threat abatement plans for conservation significant species that are known to occur, or are likely to occur in the vicinity of the proposal area.
Terrestrial Fauna	
EPA Objective	To protect terrestrial fauna so that biological diversity and ecological integrity are maintained.
Relevant Activities	<ul style="list-style-type: none"> • Permanent clearing of native vegetation. • Cut and fill works. • Construction of permanent and temporary infrastructure including rail, roads, buildings, hard stand and laydown areas. • Lighting (and noise) during construction and operation. • Movement of machinery and vehicles. • Operation and maintenance of the electrified railway line.
Potential Impacts and Risks	<ul style="list-style-type: none"> • Permanent loss of fauna habitat, including short range endemic (SRE) terrestrial fauna habitat due to clearing and construction of infrastructure. • Fauna deaths and injury resulting from collisions with earth moving equipment and/or vehicles during construction and operation. • Fragmentation of fauna habitat, barrier to fauna movement and/or loss of ecological connectivity. • Degradation of habitat and habitat modification from introduction and increased spread of weeds and/or disease, soil pathogens, altered surface water flows and edge effects. • Noise and lighting during construction and operation may impact or change fauna movement and behaviour. • Change in feral animal abundance and/or movement.
Required Work	15. In accordance with the requirements of EPA Guidance conduct a desktop study to identify and characterise the terrestrial fauna and fauna habitats to

inform local and regional context; and based on the results of the desktop study:

- a) Conduct a Basic (Level 1) survey and fauna habitat assessment, and/or
- b) conduct a Detailed (Level 2) survey; and/or
- c) conduct targeted surveys for significant fauna that may be directly or indirectly impacted including for the three species of Black Cockatoos; Carnaby's Cockatoo, Baudin's Cockatoo, Forest Red-tailed Cockatoo.

Note: The desktop study, surveys and ERD should consider vertebrate fauna (including aquatic fauna) and SRE and/or other significant invertebrates. Survey design should ensure that adequate local and regional contextual data are collected and should consider cumulative impacts. Surveys should include sites in both impact and non-impact (reference) areas.

16. Demonstrate how surveys are relevant, representative and consistent with current EPA policy and guidance and this scoping document.
17. Provide a map of the survey effort applied in relation to the fauna habitats, the study area, development envelope, identifying the direct and indirect impact areas.
18. Identify and describe the fauna assemblages present and likely to be present within the development envelope that may be impacted by the proposal.
19. Identify and describe the characteristics of the fauna habitats identified by the desktop study and surveys, including a map of their extents in relation to the study area, the Development Envelope and direct and indirect impact areas. Describe significant habitats, including but not limited to: refugia, breeding areas, key foraging habitat, movement corridors and linkages.
20. Identify significant fauna and describe in detail their known ecology, likelihood of occurrence, habitats and known threats. Map the locations of significant fauna records in relation to the fauna habitats, the study area, the Development Envelope, and direct and indirect impact areas.

Note: If multiple surveys have been undertaken to support the assessment, a consolidated report should be provided including the integrated results of the surveys. Reports for vertebrate fauna and SRE (and/or other significant) invertebrate fauna should be provided separately. Survey reports should be prepared following EPA Guidance and appended to the ERD. Ensure species database searches and taxonomic identifications are up-to-date. IBSA data packages should be submitted in accordance with EPA guidance and an IBSA number should be submitted with each survey report.

21. Identify any potential fauna movement corridors within, adjacent to or across the development envelope including, but not limited to, areas of intact native vegetation, using appropriate methods. Describe the methods undertaken.
22. In accordance with relevant guidelines set out below, provide figures and maps illustrating fauna habitats, known recorded locations of significant vertebrate species and SRE (and/or other significant) invertebrate fauna in relation to the development envelope.
23. Demonstrate that no SRE invertebrate fauna is restricted to the development envelope or that such species have been adequately surveyed outside of the development envelope.
24. Identify, describe and quantify the potential impacts (direct, indirect and cumulative) to fauna assemblages, habitats and significant species that may occur following implementation of the proposal in a local and regional context. Provide a table of the proportional extents of each habitat within the study area

	<p>and Development Envelope, and the predicted amount to be directly and indirectly impacted. Inland aquatic fauna should also consider potential impacts and management plans for MNES listed aquatic fauna, including the Black-striped Dwarf Galaxias (<i>Galaxiella nigrostriata</i>) – Endangered, and the Carter's Freshwater Mussel (<i>Westralunio carteri</i>) – Vulnerable.</p> <p>25. Outline and justify the proposed avoidance and mitigation measures to reduce the potential impacts of the proposal. Include proposed management and/or monitoring plans that will be implemented pre- and post-construction to demonstrate and ensure residual impacts are not greater than predicted. Management and/or monitoring plans are to be presented in accordance with the EPAs Instructions.</p> <p>26. Demonstrate how the proposal has had regard to, and is not inconsistent with any relevant recovery plans, conservation advice and threat abatement plans.</p> <p>27. Predict the residual impacts to terrestrial fauna after considering and applying the mitigation hierarchy.</p> <p>28. Determine and quantify any significant residual impacts by applying the:</p> <ol style="list-style-type: none"> a) Residual Impact Significance Model (page 11 of the WA Environmental Offsets Guideline) for all direct and indirect impacts, including an explanation of how the information and values within the model have been determined, b) WA Offset Template in the WA Environmental Offsets Guidelines (2014), including the provision of supporting information, and c) the Commonwealth Offsets Assessment Guide including rationale for the values entered into the guide. <p>29. Where significant residual impacts remain, propose an appropriate offsets package with supporting information to demonstrate consistency with the WA Environmental Offsets Policy and Guidelines. Where residual impacts relate to EPBC Act listed threatened and/or migratory species propose an appropriate offset package consistent with the Commonwealth and WA Environmental Offsets Policy. Spatial data defining the area of significant residual impacts for each environmental value should also be provided (e.g. vegetation type, vegetation condition, specific fauna species habitat).</p> <p>30. Propose an appropriate offset package consistent with the Commonwealth Environmental Offsets Policy for the predicted likely significant residual impact to Black Cockatoos. Demonstrate how the proposed offset is consistent with each of the principles of the Commonwealth Environmental Offsets Policy in addition to providing a rationale for the values entered into the offset guide. Spatial data defining the area of significant residual impacts for each environmental value should also be provided (e.g. vegetation type, vegetation condition, specific fauna species habitat).</p>
<p>Relevant Policy and Guidance</p>	<p><i>EPA Policy and Guidance</i></p> <ul style="list-style-type: none"> • <i>Instructions on how to prepare an Environmental Review Document</i> (EPA, 2016) • <i>Environmental Factor Guideline – Terrestrial Fauna</i> (EPA, 2016) • <i>Technical Guidance: Sampling methods for terrestrial vertebrate fauna</i> (EPA, 2016) • <i>Technical Guidance: Terrestrial fauna surveys</i> (EPA, 2016) • <i>Technical Guidance: Sampling of short range endemic invertebrate fauna</i> (EPA, 2016)

- Instructions: IBSA Data Packages.

Other policy and guidance

- *Draft Revised Referral Guideline for Three Threatened Black Cockatoo Species: Carnaby's Cockatoo, Baudin's Cockatoo, Forest Red-tailed Black Cockatoo* (DotEE, 2017)
- *Survey guidelines for Australia's threatened birds: Guidelines for detecting birds listed as threatened under the EPBC Act* (DEWHA, 2010).
- *Threat Abatement Plan for Disease in Natural Ecosystems caused by Phytophthora cinnamomi*, (DotE, 2014).
- *Threat Abatement Plan for Predation by Feral Cats*, (DotE, 2015).
- *Threat Abatement Plan for Predation by the European Red Fox*, (DEWHA, 2008).
- *Threat Abatement Plan for Competition and Land Degradation by Rabbits*, (DotE, 2016).
- *Environmental Management Plan Guidelines* (DotE, 2014).
- *Forest Black Cockatoo (Baudin's Cockatoo Calyptorhynchus baudinii and Forest Red-tailed Black Cockatoo Calyptorhynchus banksii naso) Recovery Plan* (DEC, 2008).
- *Carnaby's Cockatoo (Calyptorhynchus latirostris) Recovery Plan* (DPAW, 2013).
- *National Recovery Plan for the Woylie (Bettongia penicillata ogilbyi): Wildlife Management Program No. 51* (DEC, 2012).
- *Chuditch (Dasyurus geoffroii) Recovery Plan* (DEC, 2012).
- *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy* (DSEWPaC, 2012).
- *Western Australian Environmental Offsets Policy* (Government of Western Australia, 2011).
- *Western Australian Environmental Offsets Guidelines* (Government of Western Australia, 2014).
- *Western Australian Environmental Offsets Template* (Government of Western Australia, 2014).
- *Threatened Species Scientific Committee. Conservation Advice Galaxiella nigrostriata black-stripe minnow.* (DoEE, 2018)
- *Threatened Species Scientific Committee Conservation Advice Westralunio carteri Carter's freshwater mussel.* (DoEE, 2018).
- Relevant recovery plans, conservation advices and/or threat abatement plans for conservation significant species that are known to occur, or are likely to occur in the vicinity of the proposal area.

Terrestrial Environmental Quality	
EPA Objective	To maintain the quality of land and soils so that environmental values are protected.
Relevant Activities	<ul style="list-style-type: none"> • Clearing of native vegetation. • Excavation of soils from railway construction. • Disturbance of soils from construction of railway and hardstand areas. • Waste disposal. • Alteration of landscape from construction of railway. • Temporary groundwater abstraction for construction water supply and temporary dewatering for construction purposes. • Discharge of dewatering effluent. • Storage and handling of chemicals and fuels.
Potential impacts and Risks	<ul style="list-style-type: none"> • Contamination of land and soils from fuel and chemical storage leaks, waste products being released into the receiving environment (including dewatering effluent) and the formation of Acid Sulfate Soils (ASS) as a result of soil disturbance, dewatering or excavation. • Disturbance to known or suspected contaminated sites, including drawing in of contaminated groundwater outside the development envelope, has the potential to mobilise existing contaminants, increasing the risk of adverse impacts to environmental values. • Contamination of groundwater and soils from construction or stockpiling activities. • Disturbance to ASS during excavation activities may result in oxidation of ASS and leaching of metals near the proposal. • Localised and temporary dewatering as a result of excavation activities below the groundwater level may result in oxidation of ASS and leaching of metals near the proposal.
Required Work	<p>31. Identify and describe the soil characteristics within the development envelope and map the soil units within the local and regional environment.</p> <p>32. Identify, describe, analyse and assess ASS within the development envelope. Undertake a preliminary ASS investigation within the development envelope to understand ASS risk and demonstrate the proposed management, monitoring and mitigation methods to be implemented to address indirect and direct impacts associated with disturbance of ASS.</p> <p>33. Identify, describe, analyse and assess potential contaminated sites within and adjacent the development envelope. Undertake a Contamination Preliminary Sites Investigation (PSI) within and adjacent the development envelope as needed to understand possible contaminating activities as a result of historical or current land use that may impact the proposal and provide a map of the location of contaminated sites within. Include consideration for potentially contaminated groundwater to be mobilised due to construction activities. If required, undertake a Detailed Site Investigation (DSI) to further understand and manage risks associated with contaminated sites.</p>

	<p>34. Describe the chemical and physical characteristics of any waste materials that may be generated during construction and that may be discharged to the environment.</p> <p>35. Analyse, discuss and assess the potential impacts (direct and indirect) from construction and operation of the proposal from potentially contaminated sites within and adjacent to the development envelope and propose management methods to be implemented.</p> <p>36. Describe and justify the proposed avoidance and mitigation measures to reduce the potential impacts of the proposal. Include proposed management and/or monitoring plans that will be implemented pre- and post-construction to demonstrate and ensure impacts are not greater than predicted. Management and/or monitoring plans are to be presented in accordance with the EPA's Instructions.</p> <p>37. Determine and quantify any significant residual impacts of the proposal after application of the mitigation hierarchy and identify management measures to ensure residual impacts are not greater than predicted.</p> <p>38. Demonstrate how the EPA's objective for this factor will be met.</p>
Relevant Policy and Guidance	<p><i>EPA Policy and Guidance</i></p> <ul style="list-style-type: none"> • Environmental Factor Guideline: Terrestrial Environmental Quality (EPA 2016). <p><i>Other Policy and Guidance</i></p> <ul style="list-style-type: none"> • <i>Contaminated Sites Act 2003.</i> • Assessment and Management of Contaminated Sites (DWER, 2014). • Identification and Investigation of Acid Sulfate Soils and Acidic Landscapes (DWER, 2015). • Treatment and Management of Soils and Water in Acid Sulfate Soil Landscapes (DWER, 2015). • Guidelines for the Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia (DoH, 2009).
Inland Waters	
EPA Objective	To maintain the hydrological regimes of groundwater and surface water so that environmental values are protected.
Relevant Activities	<ul style="list-style-type: none"> • Clearing of native vegetation. • Dewatering and/or abstraction of groundwater. • Construction of railway and hardstand areas – compaction of soils. • Construction and ongoing presence of bridges and culverts • Alteration of landscape for construction of railway, associated infrastructure and laydown areas. • Storage and use of chemicals and fuels. • Refuelling and servicing of vehicles and machinery. • Ongoing presence of railway, stations and associated infrastructure.

	<ul style="list-style-type: none"> • Runoff from station car parks.
Potential Impacts and Risks	<ul style="list-style-type: none"> • Interruption of and changes to surface water flows, in particular in relation to Bennett Brook. • Changes to infiltration and recharge of groundwater. • Changes to surface water quality due to contamination from spills, discharge of dewatering effluent. • Loss or decline of groundwater dependent ecosystems, riparian vegetation to changes to surface water flows or hydrological regimes. • Degradation of Conservation Category Wetlands (CCW's) and Resource Enhancement Wetlands (REW's) that intersect or are adjacent to the development envelope. • Changes in groundwater levels and quantity due to potential dewatering and/or groundwater abstraction. • Changes to the groundwater quality of the Gngara underground water pollution control area (UWPCA) due to potential dewatering, groundwater abstraction, and contamination from spills and incidents. • Changes in surface or groundwater quality associated with the discharge of dewatering effluent. • Increase to sediment loads entering waterways and/or wetlands. • Loss of terrestrial (freshwater) fauna due to changes in water quality or hydrological regimes.
Required Work	<ol style="list-style-type: none"> 39. Characterise the local and regional hydrological regime and describe recharge and discharge mechanisms and surface water/groundwater interaction. Wetland identification and assessment should utilise the DBCA's Geomorphic Wetlands Swan Coastal Plain Dataset. 40. Identify, describe and assess the environmental values and significance of surface and groundwater hydrological characteristics within the development envelope and the immediately adjacent area upstream and downstream of the development envelope. Describe these values in local and regional contexts. Identify users of the identified values. 41. Identify, describe and assess the wetlands within and in proximity upstream and downstream of the development envelope utilising the relevant database. Describe these values in local and regional contexts. 42. Describe and assess the potential impacts (direct and indirect) as a result of both construction and operation of the proposal on water quantity (excess and deficit) and quality in relation to surface and groundwater, waterways and their floodplains and wetlands. 43. Once the development envelope has been refined, predict the extent, severity and duration of potential impacts to the environmental values identified, including from changes to local and regional surface and groundwater flows and levels (excess and deficit), groundwater drawdown, local surface and groundwater quality and impacts to surface and groundwater users as a result of construction and operation. 44. Identify, describe, analyse and assess the potential impacts (direct and indirect) from construction and operation of the proposal on water quantity and

quality including but not limited to the environmental values of identified significant wetlands within and near the development envelope.

45. Identify, describe and assess the potential impacts on Bennett Brook flood levels and upstream and downstream flood levels from the associated bridge/crossing.
46. Describe, analyse, discuss and assess the potential impacts (direct and indirect) as a result of both construction and operational elements of the proposal on water quantity and quality in relation to surface and ground water, Public Drinking Water Source Areas (PDWSA's), Wellhead Protection Zones, waterways and wetlands.
47. Identify the preferred location of groundwater abstraction zones for water required to implement the proposal.
48. Demonstrate how the mitigation hierarchy of avoid, minimise, mitigate has been applied during the planning and design stages of the Project.
49. Describe and justify any proposed mitigation to reduce the potential impacts of construction and operation of the proposal on the identified values. Provide maps of and justification for the location and number of any proposed drainage and stormwater infrastructure. Include any proposed management and/or monitoring plans and strategies that will be implemented pre- and post-construction to demonstrate and ensure the EPA's objective can be met. Include any hydrological and hydrogeological assessments undertaken for dewatering and abstraction. Management and/or monitoring plans are to be presented in accordance with the EPA's instructions.
50. Discuss the proposed management, monitoring and mitigation to ensure impacts on inland water quality and ecological values are not greater than predicted as a result of implementing the proposal. This is to include, but not be limited to, consideration of suitable buffers between the boundary of the development envelope and waterways and wetlands.
51. Propose mitigation measures to limit impacts on groundwater resources in the Gngara UWPCA, including proposed management and/or monitoring plans that will be implemented pre- and post-construction.
52. Demonstrate how best practice Water Sensitive Urban Design principles have been implemented in the design of the infrastructure and in stormwater and drainage components to ensure hydrological regimes and groundwater quality are maintained.
53. Identify, describe and quantify the potential residual impacts (direct and indirect) that may occur following implementation of the proposed mitigation measures and determine the significance of the residual impacts on the identified environmental values by applying the residual impact significance model (page 11) and WA Offset template (Appendix 1) in the WA Environmental Offsets Guidelines (2014). Provide spatial data defining the area of any identified significant residual impacts and proposed offsets in relation to the development envelope. Where significant residual impacts remain, propose an appropriate offsets package that is consistent with the WA Environmental Offsets Policy.

Note: Offsets may be appropriate if the construction or operation of the proposal results in a change in the hydrology of a wetland upstream or downstream of the development envelope such that the wetland or its ecological function are significantly impacted by the proposal. In this instance an offset would be appropriate to counter the significant residual impact to the hydrological processes

	of the wetland. Please refer to Figure 3 of the WA Environmental Offsets Guidelines, 2014.
Relevant Policy and Guidance	<p>EPA Policy and Guidance</p> <ul style="list-style-type: none"> • <i>Environmental Factor Guideline: Inland Waters</i> (EPA 2018). <p>Other Policy and Guidance</p> <ul style="list-style-type: none"> • <i>Statement of Planning Policy 2.2 Gnangara Groundwater Protection</i> (WAPC, 2005). • <i>Statement of Planning Policy No. 2.7 Public Drinking Water Source Policy</i> (WAPC, 2003). • <i>State Planning Policy 2.9 Water Resources</i> (WAPC, 2006). • <i>Environmental Water Provisions Policy for Western Australia</i> (Water and Rivers Commission, 2000). • <i>Wetlands Conservation Policy for Western Australia</i> (Government of Western Australia, 1997). • <i>A Guide to Managing and Restoring Wetlands in Western Australia</i> (DEC 2012). • <i>Geomorphic Wetlands Swan Coastal Plain Dataset</i> (DBCA, 2020). • <i>Water Quality Protection Note 10, Contaminant Spills Emergency Response</i> (DoW, 2006). • <i>Water Quality Protection Note 25: Land Use Compatibility Tables for Public Drinking Water Source Areas</i> (DoW, 2016). • <i>Water Quality Protection Note 56: Tanks for Fuel and Chemical Storage Near Sensitive Water Resources</i> (DWER, 2018). • <i>Water Quality Protection Note 83, Infrastructure Corridors Near Sensitive Water Resources</i> (DoW, 2007). • <i>Western Australian Environmental Offsets Policy</i> (Government of Western Australia, 2011). • <i>Western Australian Environmental Offsets Guidelines</i> (Government of Western Australia, 2014). • <i>Western Australian Environmental Offsets Template</i> (Government of Western Australia, 2014).
Social Surroundings	
EPA Objective	To protect social surroundings from significant harm.
Relevant Activities	<ul style="list-style-type: none"> • Clearing of native vegetation. • Cut and fill works including temporary impacts associated with excavation activities, soil movement and stockpiling. • Soil compaction. • Construction activities associated with building the railway including rail infrastructure, stations, roads, buildings and other hard stand areas.

	<ul style="list-style-type: none"> • Operation of plant, machinery and service vehicles. • Operation and maintenance of the electrified railway line.
<p>Potential Impacts and Risks</p>	<ul style="list-style-type: none"> • Direct and potential indirect impacts to Registered Aboriginal Heritage Sites • Disturbance to Aboriginal cultural heritage sites, recreational and tourism areas in and near Whiteman Park. • Temporary exposure to construction noise and vibration for sensitive receptors in residential areas near the railway and associated infrastructure. • Temporary exposure to construction noise and vibration for users of recreational areas near the railway and associated infrastructure. • Increased noise from vehicle movements during construction impacting the amenity of landowners and users of nearby recreational areas. • Increased and ongoing exposure to operational noise and vibration for sensitive receptors in residential and recreational areas in close proximity to the railway and associated infrastructure. • Potential for increased risk of bushfire due to construction and operation of the electrified railway and changes to emergency access to Whiteman Park. • Changes to visual amenity within the landscape from the construction of elevated rail, road bridges and noise walls or barriers.
<p>Required Work</p>	<p>54. Characterise, describe and analyse the surrounding land use and amenity values in and adjacent to the development envelope with a focus on sensitive receptors and important areas for human use that may be impacted by noise, vibration, dust, increased risk of bushfire, or impacts to recreation and visual amenity. Include relevant maps to identify the sensitive receptors likely to be affected by these impacts associated with the proposal.</p> <p>55. Demonstrate how the mitigation hierarchy of avoid, minimise and mitigate has been applied during the planning and design stages of the project to minimise potential impacts on social surroundings.</p> <p>Aboriginal Heritage</p> <p>56. Conduct archaeological and ethnographic surveys of the area likely to be directly and/or indirectly impacted by the proposal in order to identify and characterise any Aboriginal heritage sites and their relevance and importance to Aboriginal People and their culture.</p> <p>57. Provide a summary of the surveys undertaken, including the survey effort, timing and personnel.</p> <p>58. Describe the Aboriginal heritage values recorded within the survey area with supporting maps.</p> <p>59. Identify, describe, assess and analyse any potential impacts (direct and indirect) to identified Aboriginal Heritage values that may occur as a result of implementation of the proposal.</p> <p>60. Describe any proposed mitigation measures to avoid or minimise the identified direct and indirect impacts on Aboriginal heritage values that are to be implemented in consultation with Whadjuk representatives as nominated by the South West Aboriginal Land and Sea Council (SWALSC) under the Noongar Standard Heritage Agreement. Include management actions that will be undertaken to manage the potential for disturbance to unknown sites of Aboriginal heritage significance during construction.</p>

61. Include any proposed management and/or monitoring plans for Aboriginal heritage values that will be implemented pre- and post-construction to demonstrate and ensure the EPA's objective can be met.

62. Identify and describe the potential residual impacts (direct and indirect) that may occur following implementation of the proposed mitigation measures and determine the significance of the residual impacts on the identified environmental values of Aboriginal heritage.

Historical and Natural Heritage

63. Identify and describe the natural and historic heritage values that occur in and near the development envelope.

64. Identify, describe, assess and analyse any potential impacts (direct and indirect) as a result of both construction and operational elements of the proposal on identified important historical and natural heritage sites including Whiteman Park.

65. Describe any proposed mitigation measures to avoid or minimise the identified direct and indirect impacts on historical and natural heritage values.

66. Include any proposed management and/or monitoring plans for historical and natural heritage that will be implemented pre- and post-construction to demonstrate and ensure the EPA's objective can be met.

67. Identify and describe the potential residual impacts (direct and indirect) that may occur following implementation of the proposed mitigation measures and determine the significance of the residual impacts on the identified environmental values of historical and natural heritage.

Noise and Vibration

68. Undertake noise and vibration monitoring and modelling as appropriate along the proposed alignment to determine ambient noise levels (including vibrational noise) in areas of noise sensitive receptors, including in areas used for recreational purposes. Consideration should be given to construction and operational noise and vibration impacts.

69. Undertake an initial screening assessment and if required a detailed noise and vibration assessment in accordance with relevant guidelines to predict future noise and vibration levels resulting from the proposal on sensitive receptors, including recreational values as appropriate.

70. Assess and analyse noise and vibration impacts along the proposed railway alignment in accordance with 'State Planning Policy 5.4 – Road and Rail Noise' (WAPC, 2019), Australian Standard AS 2670.2-1990 and relevant guidance. Justify the use of any parameters used to monitor and model impacts from noise and vibration along the proposed alignment. Consideration should be given to planned areas of higher density and mixed-use development in close proximity to the proposed stations, including residential dwellings.

71. Identify relevant noise and vibration mitigation measures for identified sensitive receptors and describe any proposed mitigation to reduce the potential impacts of construction and operation from the proposal. Provide maps of and justification for the location and number of any proposed mitigation infrastructure.

72. Include any proposed management and/or monitoring plans for noise and vibration that will be implemented pre- and post-construction to demonstrate and ensure that the EPA's objectives can be met.

73. Identify and describe the potential residual impacts (direct and indirect) that may occur following implementation of the proposed mitigation measures and

	<p>determine the significance of the residual impacts of noise and vibration on the identified sensitive receptors with reference to the residual impact model set out in the WA Environmental Offsets Guidelines.</p> <p>Visual Amenity</p> <p>74. Characterise the land use and aesthetic (visual amenity) values along the proposed alignment that have the potential to be impacted by implementation of the proposal.</p> <p>75. Identify and describe any potential direct and indirect impacts on identified visual amenity values as a result of implementation of the proposal.</p> <p>76. Identify and describe any proposed mitigation measures to avoid or minimise the potential impacts on the identified visual amenity values along the proposed alignment to demonstrate and ensure the EPA’s objective can be met.</p> <p>77. Identify and describe the potential residual impacts (direct and indirect) that may occur following implementation of the proposed mitigation measures and determine the significance of the residual impacts on the identified visual amenity values.</p>
<p>Relevant Policy and Guidance</p>	<p>EPA Policy and Guidance</p> <ul style="list-style-type: none"> • Environmental Factor Guideline: Social Surroundings (EPA 2016). <p>Other Policy and Guidance</p> <ul style="list-style-type: none"> • <i>Environmental Protection (Noise) Regulations 1997</i> • <i>State Planning Policy 5.4 – Road and Rail Noise</i> (WAPC, 2019). • <i>State Planning Policy 3.7 – Planning in Bushfire Prone Areas</i> (WAPC, 2015). • <i>Road and Rail Noise Guidelines</i> (WAPC, 2019). • Australian Standard AS 2670.2-1990: Evaluation of human exposure to whole body vibration - Part 2: Continuous and shock induced vibration in buildings (1 to 80 Hz) (Standards Australia, 1990). • Mechanical vibration and shock – Evaluation of human exposure to whole-body vibration (Standards Australia, 2018). • Visual Landscape Planning in Western Australia: a manual for evaluation, assessment, siting and design (WAPC, 2007).

Index of Biodiversity Surveys for Assessment (IBSA)

The PTA will provide an IBSA number with each biodiversity survey report submitted as evidence that the associated IBSA data package has been submitted via the IBSA submission portal.

4. Other Environmental Factors or Matters

The following other environmental factors or matters relevant to the proposal have been identified for consideration by the EPA, that must be addressed during the environmental review and discussed in the ERD.

4.1 Consideration of Alternatives

Include a section in the ERD which sets out how the PTA evaluated, compared and considered alternative route alignments and construction methods during the planning phase of the proposal in

order to avoid and reduce potential environmental impacts, particularly on biodiversity values. This section should also include the consequences of not proceeding with the action and a comparative description of the impacts of each alternative on matters protected by the controlling provision of the EPBC Act.

4.2 Air Quality

Include a section in the ERD which discusses and compares net greenhouse gas emissions (tonnes of carbon dioxide equivalent per annum) between rail transport and conventional vehicle modes of transport; and the potential reduction in transport emissions (e.g. particulate matter, oxides of nitrogen, carbon monoxide) associated with reducing the number of motor vehicle journeys following construction of the proposal.

If studies, modelling or investigations have previously been undertaken that:

- a) identify the potential transport emission reductions
- b) analyse the potential greenhouse gas emission (tonnes of carbon dioxide equivalent per annum) savings

include a description and discussion regarding the results in the ERD.

4.3 Principle of Waste Minimisation

Set out the proposed waste minimisation strategy to demonstrate consideration of the principle of waste minimisation. The waste minimisation strategy should include details on the destination or use of removed materials in accordance with the principle of waste minimisation as defined in the EP Act.

4.4 Matters of National Environmental Significance

The Commonwealth DAWE requires additional information relevant to the assessment of impacts under the EPBC Act. Information should be included to enable the consideration of the social and economic impacts of the proposal under the EPBC Act. Relevant matters may include:

- the cost of the proposal (including the basis for any estimations of costs and/or benefits),
- expected employment impacts,
- social amenity/public use of affected areas,
- public concerns,
- cultural and traditional activities in or relating to the affected area, and
- details of any public and stakeholder consultation activities including outcomes.

Additional information relevant only to the assessment under the EPBC Act should be provided as appendices to the ERD.

During the ERD phase, other environmental factors or matters may be identified that were not apparent at the time that this ESD was prepared. If this situation arises, the PTA is to consult with the EPA to determine whether these environmental factors and/or matters are to be addressed in the ERD, and if so, to what extent.

The following information is required under the EPBC Regulations 2000 Schedule 4

Make sure all proposed safeguards and mitigation measures cover the following points:

- a) a description, and an assessment of the expected or predicted effectiveness of, the mitigation measures;
- b) any statutory or policy basis for the mitigation measures;
- c) the cost of the mitigation measures;

- d) an outline of an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action, including any provisions for independent environmental auditing;
- e) the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program;
- f) a consolidated list of mitigation measures proposed to be undertaken to prevent, minimise or compensate for the relevant impacts of the action, including mitigation measures proposed to be taken by State governments, local governments or the proponent;
- g) a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.

Environmental record of person proposing to take the action

Details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

- a) the person proposing to take the action; and
- b) for an action for which a person has applied for a permit, the person making the application.
- c) If the person proposing to take the action is a corporation—details of the corporation's environmental policy and planning framework.

Information sources

For information given in a draft public environment report or environmental impact statement, the draft must state:

- a) the source of the information; and
- b) how recent the information is; and
- c) how the reliability of the information was tested; and
- d) what uncertainties (if any) are in the information.

5. Stakeholder Consultation

The PTA will consult with stakeholders who are affected by, or are interested in, the proposal. This includes the decision-making authorities (refer Section 7), other relevant State and Commonwealth government agencies and local government authorities, the local community and non-government environmental organisations.

The PTA will document the following in the ERD:

- identified stakeholders;
- the stakeholder consultation undertaken and the outcomes, including decision-making authorities' specific regulatory approvals and any adjustments to the proposal as a result of consultation; and
- any future plans for consultation.

6. Decision-making Authorities

At this stage, the PTA has identified the authorities listed in Table 5 as potential decision-making authorities (DMA's) for the proposal. Additional DMA's may be identified during the course of the assessment.

Table 5: Potential Decision Making Authorities

Decision Making authority	Relevant legislation
1. Minister for Environment	<i>Environmental Protection Act 1986</i> – Part IV Divisions 1 and 2.

	<i>Biodiversity Conservation Act 2016</i> - Taking of flora and fauna.
2. Minister for Aboriginal Affairs	<i>Aboriginal Heritage Act 1972</i> – Section 18 Disturbance of a site(s) of Aboriginal heritage significance.
3. Minister for Planning	<i>Planning and Development Act 2005</i> – Scheme amendments.
4. Minister for Transport	<i>Railway (METRONET) Act, 2018</i> – Section 4A – Authority to construct (and maintain) the Morley- Ellenbrook Line railway.
5. Minister for Lands	<i>Land Administration Act 1997</i> – Section 182 Authority to enter land and do feasibility studies and surveys.
6. Minister for Water	<i>Rights in Water and Irrigation Act 1914</i> – Licence to take water (5C) and a licence to construct or alter a well (26D).
7. Minister for Finance	<i>Public Works Act, 1902</i> – Pt IV, Section 82 – Authority to enter lands and do surveys.
8. CEO, Department of Water and Environmental Regulation	<i>Environmental Protection Act 1986</i> - Part V Division 3 <i>Environmental Protection (clearing of Native Vegetation) Regulations 2004</i> – Native vegetation clearing permit. <i>Environmental Protection Regulations 1987</i> – crushing of excess limestone during construction; works approval and licence to construct and operate concrete batching plants.
9. Chief Dangerous Goods Officer, Department of Mines, Industry Regulation and Safety	<i>Dangerous Goods Safety Act 2004</i> – Storage and handling of hazardous materials and Dangerous Goods Licence.
10. Panel Secretariat, Metro North-East Joint Development Assessment Panel	<i>Planning and Development Act 2005</i> - Development applications for station precincts.
11. Chairman, Western Australian Planning Commission	<i>Planning and Development Act 2005</i> - Development applications for station precincts.
12. Chief Health Officer, Department of Health	<i>Health Act 1911</i> s.107(2)(b), Health (Treatment of Sewage and Disposal of Effluent and Liquid Waste) Regulations) r. 4A. Drains, sanitary conveniences, and any apparatus for the treatment of sewage intended to serve a building that is not a single dwelling or any other building that produces more than 540 litres of sewage per day.
13. CEO, City of Swan	<i>Planning and Development Act 2005</i> – Approval of Development Applications. <i>Building Act 2011</i> - Building application, permit and certificate. <i>Health Act (Underground Water Supply) Regulation 1959</i> – Regulation 11 - Approval required for a well or other underground source of water supply. <i>Environmental Protection (Noise) Regulations 1997</i> – Approval of Noise Management Plan.

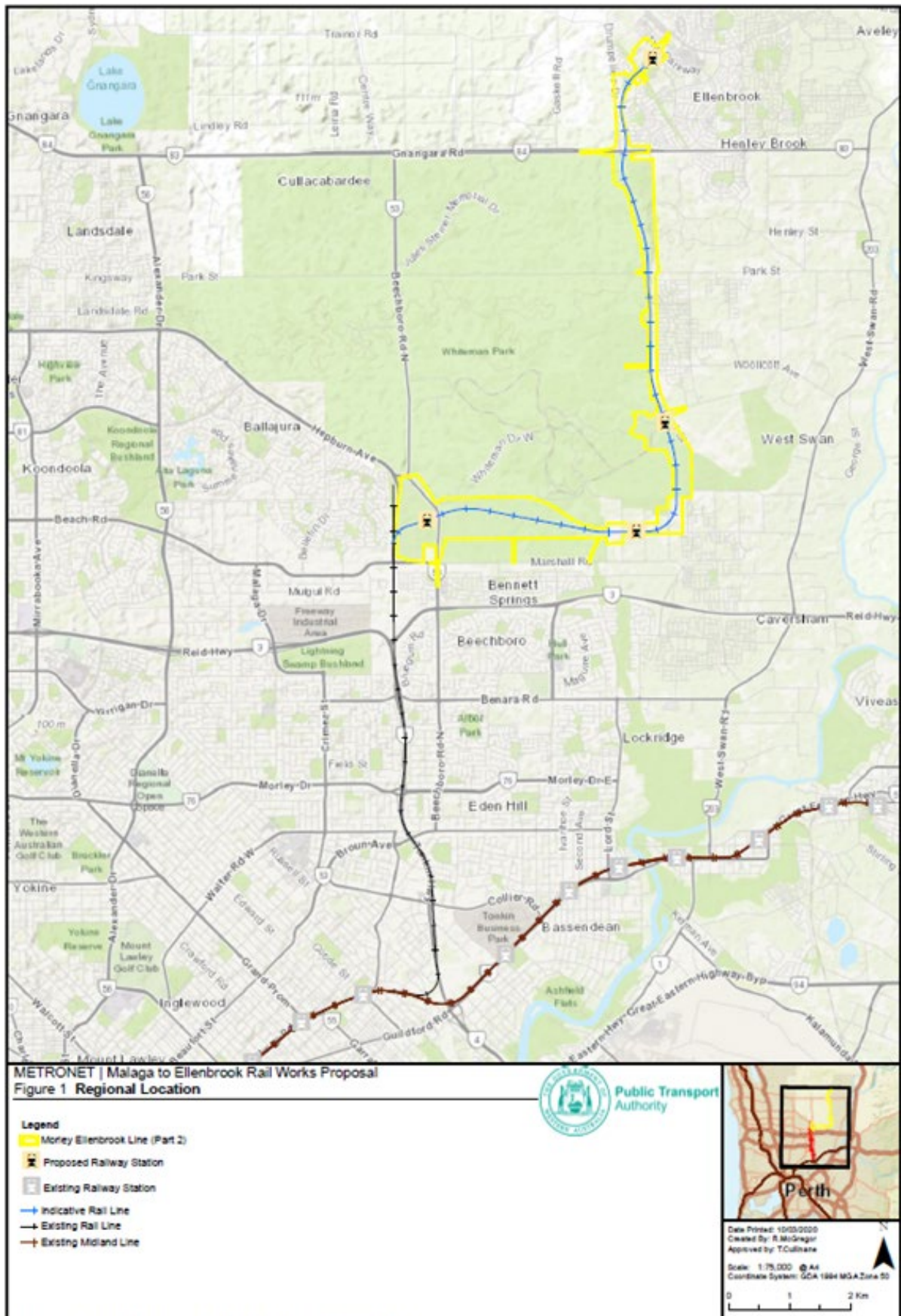


Figure 1 - Regional Location

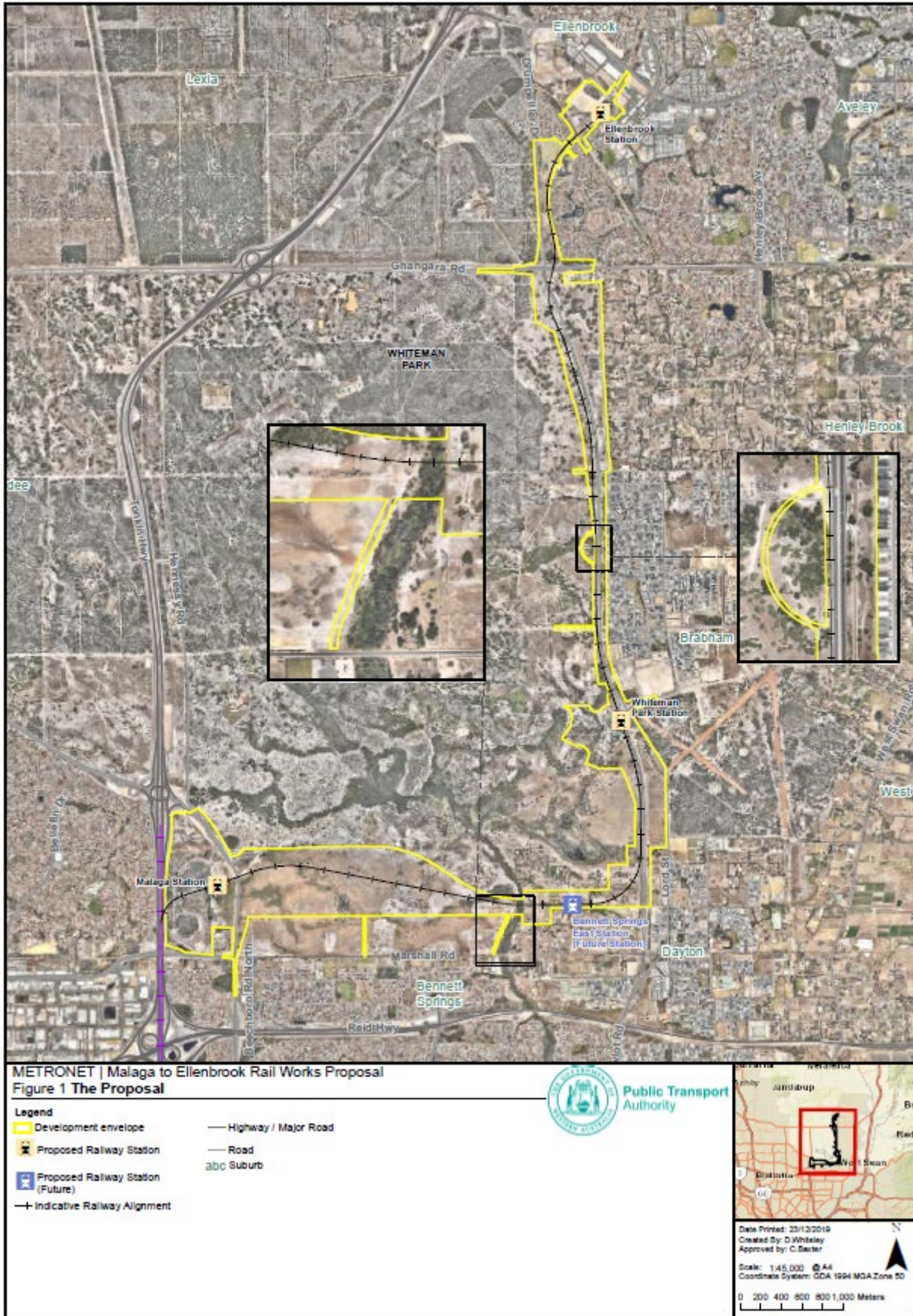


Figure 2 – Development Envelope of the Malaga to Ellenbrook Rail Works