GOVERNMENT OF WESTERN AUSTRALIA

Environmental Protection Authority

EPA REFERRAL FORM PROPONENT

Referral of a Proposal by the Proponent to the Environmental Protection Authority under Section 38(1) of the *Environmental Protection Act 1986*.

PURPOSE OF THIS FORM

Section 38(1) of the *Environmental Protection Act 1986* (EP Act) provides that where a development proposal is likely to have a significant effect on the environment, a proponent may refer the proposal to the Environmental Protection Authority (EPA) for a decision on whether or not it requires assessment under the EP Act. This form sets out the information requirements for the referral of a proposal by a proponent.

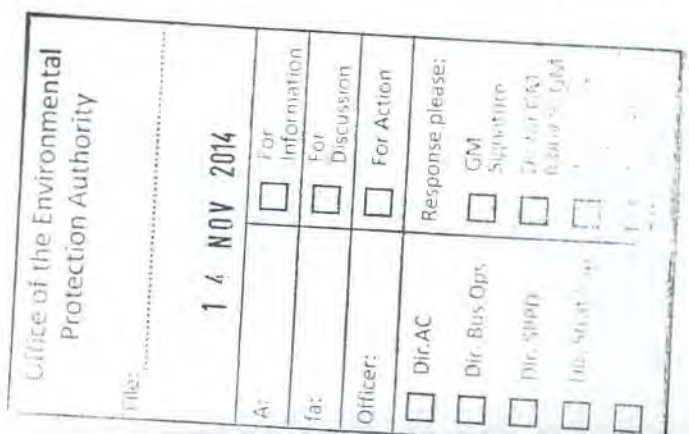
Proponents are encouraged to familiarise themselves with the EPA's *General Guide on Referral of Proposals* [see Environmental Impact Assessment/Referral of Proposals and Schemes] before completing this form.

A referral under section 38(1) of the EP Act by a proponent to the EPA must be made on this form. A request to the EPA for a declaration under section 39B (derived proposal) must be made on this form. This form will be treated as a referral provided all information required by Part A has been included and all information requested by Part B has been provided to the extent that it is pertinent to the proposal being referred. Referral documents are to be submitted in two formats – hard copy and electronic copy. The electronic copy of the referral will be provided for public comment for a period of 7 days, prior to the EPA making its decision on whether or not to assess the proposal.

CHECKLIST

Before you submit this form, please check that you have:

	Yes	No
Completed all the questions in Part A (essential).	X	
Completed all applicable questions in Part B.	X	
Included Attachment 1 – location maps.	X	
Included Attachment 2 – additional document(s) the proponent wishes to provide (if applicable).	X	
Included Attachment 3 – confidential information (if applicable).		X
Enclosed an electronic copy of all referral information, including spatial data and contextual mapping but excluding confidential information.	X	



Following a review of the information presented in this form, please consider the following question (a response is optional).

Do you consider the proposal requires formal environmental impact assessment?		
☐ Yes	☒ No	☐ Not sure
If yes, what level of assessment?		
☐ Assessment on Proponent Information	☐ Public Environmental Review	

PROPONENT DECLARATION (to be completed by the proponent)

I, RAYMOND PETER FEMAN *(full name)* declare that I am authorised on behalf of PUBLIC TRANSPORT AUTHORITY (being the person responsible for the proposal) to submit this form and further declare that the information contained in this form is true and not misleading.

Signature	Name (print) RAY FEMAN
Position PROJECT DIRECTOR FORRESTFIELD – AIRPORT LINK	Company PUBLIC TRANSPORT AUTHORITY
Date 7/11/2014	

PART A - PROPONENT AND PROPOSAL INFORMATION
(All fields of Part A must be completed for this document to be treated as a referral)

1 PROPONENT AND PROPOSAL INFORMATION

1.1 Proponent

Name	Public Transport Authority of Western Australia
Joint Venture parties (if applicable)	NA
Australian Company Number (if applicable)	NA
Postal Address (where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State)	PO Box 8125 Perth Business Centre WA 6849
Key proponent contact for the proposal: • name • address • phone • email	Paul Monaghan FAL A/Environmental Manager, PTA Public Transport Centre West Parade Perth Phone: (08) 9326 3927 Email: paul.monaghan@pta.wa.gov.au
Consultant for the proposal (if applicable): • name • address • phone • email	NA

1.2 Proposal

Title	Forrestfield-Airport Link
Description	The FAL is a 9km extension of the Perth rail network from Bayswater to Forrestfield (comprising approximately 8km of bored tunnels). It comprises an integral component of Perth's long term public transport network and has been designed to meet existing and future transport demands through improving connectivity between Perth's eastern suburbs, Perth Airport and the associated business hubs and the Perth CBD. The FAL Project will include three new stations as described below: ▪ Airport West Station - located outside the western boundary of the airport within the Brearley Avenue Road reserve. This station will have below ground platforms with the station at the surface similar to the Esplanade Station in

	Perth. ▪ Consolidated Airport Station - located at the current International Terminal on Commonwealth land. This station will be underground similar to the Perth Underground Station in the CBD. This station is not relevant to this Section 38 referral. ▪ Forrestfield Station - located adjacent to Dundas Road in High Wycombe. This station will be at the existing ground level. Car parking, bus, pedestrian, taxi and cycle access facilities will be provided at Airport West and Forrestfield Stations. Forrestfield Station also includes a train stabling facility which is a minor maintenance depot where the trains are parked overnight and cleaned. Infrastructure to allow for safe egress from the tunnels will be constructed along the alignment; specifically Emergency Egress Shafts which link the tunnels to the surface and Cross Passages which provide an underground link between the two tunnels. Ancillary works will also be required to facilitate successful delivery of the project including relocation of underground services and amendments to the road network in the vicinity of the project area.
Extent (area) of proposed ground disturbance.	On state land only: Approval Boundary: 65 ha Ground/Surface Disturbance Footprint: 45.6 ha Tunnelling Footprint: 19.4 ha

Timeframe in which the activity or development is proposed to occur (including start and finish dates where applicable).	▪ Q3 2015: Early Works Commence ▪ Q3 2016: Award of Main Construction Contract ▪ Q4 2016: Commence Construction Works ▪ Q3 2017: Commence Tunnel Boring ▪ Q2 2019: Complete Tunnel Boring ▪ Q4 2019: Complete Construction Works and Commence Commissioning ▪ Q3 2020: Project Complete
Details of any staging of the proposal.	The majority of the construction works will be procured using a Design and Construct contract and delivered by a lead contractor. The PTA will prepare the reference design for the project prior to the main construction contract being awarded. The lead contractor will be responsible for the detailed design and construction of the infrastructure. Construction works are anticipated to commence in Q4 2016. The PTA is proposing to deliver some of the works as early works packages ahead of the main construction contract being awarded to facilitate successful delivery of the project. This is likely to be associated with the ancillary works and primarily relocation of underground services. These works are anticipated to commence in Q3 2015.
Is the proposal a strategic proposal?	No
Is the proponent requesting a declaration that the proposal is a derived proposal? If so, provide the following information on the strategic assessment within which the referred proposal was identified: • title of the strategic assessment; and • Ministerial Statement number.	No
Please indicate whether, and in what way, the proposal is related to other proposals in the region.	The project is not related to any other proposals in the region.

Does the proponent own the land on which the proposal is to be established? If not, what other arrangements have been established to access the land?	No. The PTA has an in house Land Tenure team which will be responsible for arranging access to the land in consultation with the Department of Lands. Access requirements vary depending on the type of land ownership. In some areas the management of the land will be transferred to the PTA from other government agencies. Private land will be acquired via negotiation with affected land owners. Where the tunnels are proposed, there is no requirement for the PTA to own the land.
What is the current land use on the property, and the extent (area in hectares) of the property?	The proposal is a 9km linear development traveling under a number of different properties and land uses including: ▪ Crown land ▪ Freehold ▪ Lease ▪ Rail Reserve ▪ Road Reserve The approval footprint for the alignment comprises 112.7 ha of which 65 ha is located on state land.

1.3 Location

Name of the Shire in which the proposal is located.	Shire of Kalamunda City of Bayswater City of Belmont
For urban areas: • street address; • lot number; • suburb; and • nearest road intersection.	Correspondence with the EPA has indicated that this information is not required to be provided due to the large linear extent of the project. Spatial data is provided with the referral and Attachment 1 shows the location of the project.
For remote localities: • nearest town; and • distance and direction from that town to the proposal site.	NA
Electronic copy of spatial data - GIS or CAD, geo-referenced and conforming to the following parameters: • GIS: polygons representing all activities and named; • CAD: simple closed polygons representing all activities and named; • datum: GDA94; • projection: Geographic (latitude/longitude) or Map Grid of Australia (MGA); • format: Arcview shapefile, Arcinfo coverages, Microstation or AutoCAD.	Enclosed?: Yes, GIS data enclosed.

1.4 Confidential Information

Does the proponent wish to request the EPA to allow any part of the referral information to be treated as confidential?	No
If yes, is confidential information attached as a separate document in hard copy?	NA

1.5 Government Approvals

Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.	Yes. The Metropolitan Region Scheme will require amendment to reflect the change in land use in part of the project area.
Is approval required from any Commonwealth or State Government agency or Local Authority for any part of the proposal? If yes, please complete the table below.	Yes

Agency / Authority	Approval required	Application lodged Yes / No	Agency/Local Authority contact(s) for proposal
Commonwealth Department of the Environment	Referral of Proposed Action under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)	No	Matt Barwick Assistant Director South West Division Environment Assessment and Compliance Division Phone (02) 6274 2332
Commonwealth Department of Infrastructure and Regional Development	Major Development Plan under the *Airports Act 1996*	No	Margaret Smythe Section Head South West Airports Airports & Aviation Division Department of Infrastructure & Regional Development Phone (02) 62747410
Department of Planning	MRS Amendment – Forrestfield Station	No	The MRS process won't commence until land acquisition has been completed. Consequently only informal initial liaison has been undertaken with the Department of Planning (Anthony Muscara) to date.
Department of Parks and Wildlife	Permit to take DRF under the *Wildlife Conservation Act 1950*	No	Anthea Jones Acting Senior Botanist Species and Communities Branch Department of Parks and Wildlife
	Translocation Proposal under the *Wildlife Conservation Act 1950*	No	Anthea Jones Acting Senior Botanist Species and Communities Branch Department of Parks and Wildlife
	License to take fauna under the *Wildlife Conservation Act 1950*	No	David Lodwick Regional Leader Land Use Planning Department Parks and Wildlife, Swan Region Phone: 9442 0336
Department of Water	Dewatering license under the *Rights in Water and Irrigation Act 1914*	No	James Mackintosh Program Manager Land Use Planning Department of Water Swan Avon Region Phone (08) 6250 8043 Email james.mackintosh@water.wa.gov.au
	Bed and Banks Permit	No	James Mackintosh Program Manager Land Use Planning Department of Water Swan Avon Region Phone (08) 6250 8043 Email james.mackintosh@water.wa.gov.au

Department of Water	26D license to construct a bore under the *Rights in Water and Irrigation Act 1914*	No	James Mackintosh Program Manager Land Use Planning Department of Water Swan Avon Region Phone (08) 6250 8043 Email james.mackintosh@water.wa.gov.au
	5C license to take water under the *Rights in Water and Irrigation Act 1914*	No	James Mackintosh Program Manager Land Use Planning Department of Water Swan Avon Region Phone (08) 6250 8043 Email james.mackintosh@water.wa.gov.au
Department of Aboriginal Affairs	Section 18 Notice under the *Aboriginal Heritage Act 1972*	No	Cesar Rodriguez Manager Approvals & Advice Department of Aboriginal Affairs Phone (08) 6551 8092
Department of Environment Regulation	Construction Noise and Vibration Management Plan and Operational Noise and Vibration Management Plan	No	Formerly John Macpherson New contact Jingnan Guo Environmental Noise Officer Department of Environment Regulation Phone (08) 6467 5280
	Construction Environmental Management Plan	No	Department of Environment Regulation
	Native Vegetation Clearing Permit Application	No	Jane Clarkson Manager Clearing Regulation Department of Environment Regulation
	Detailed Site Investigation	No	Bill Richmond Environmental Officer Department of Environment Regulation Contaminated Sites Branch Phone (08) 9333 7588
	Site Management Plan	No	Bill Richmond Environmental Officer Department of Environment Regulation Contaminated Sites Branch Phone (08) 9333 7588
	Acid Sulfate Soils and Dewatering Management Plan	No	Bill Richmond Environmental Officer Department of Environment Regulation Contaminated Sites Branch Phone (08) 9333 7588
	Works Approval and licences for spoil reuse (if required)	No	Department of Environment Regulation

PART B - ENVIRONMENTAL IMPACTS AND PROPOSED MANAGEMENT

2. ENVIRONMENTAL IMPACTS

Describe the impacts of the proposal on the following elements of the environment, by answering the questions contained in Sections 2.1-2.11:

2.1 flora and vegetation;

2.2 fauna;

2.3 rivers, creeks, wetlands and estuaries;

2.4 significant areas and/ or land features;

2.5 coastal zone areas;

2.6 marine areas and biota;

2.7 water supply and drainage catchments;

2.8 pollution;

2.9 greenhouse gas emissions;

2.10 contamination; and

2.11 social surroundings.

These features should be shown on the site plan, where appropriate.

For all information, please indicate:

(a) the source of the information; and

(b) the currency of the information.

2.1 Flora and Vegetation

2.1.1 Do you propose to clear any native flora and vegetation as a part of this proposal?

[A proposal to clear native vegetation may require a clearing permit under Part V of the EP Act (Environmental Protection (Clearing of Native Vegetation) Regulations 2004)]. Please contact the Department of Environment and Conservation (DEC) for more information.

(please tick)	✔ Yes	**If yes**, complete the rest of this section.
	☐ No	**If no**, go to the next section

2.1.2 How much vegetation are you proposing to clear (in hectares)?

The proposal will involve clearing 2.47 ha of vegetation in Good or better condition as summarised in the table below.

Vegetation Condition	Area recorded on state land (ha)		
	Area Surveyed	Approval Boundary	Surface Disturbance Footprint
Pristine	0.00	0.00	**0.00**
Excellent	5.93	2.24	**2.24**
Very Good	5.86	0.22	**0.01**
Good to Very Good	1.97	0.35	**0.22**
Good	1.73	0.04	**0.00**
Good to Degraded	2.38	0.04	**0.00**
Degraded	6.82	0.43	**0.21**
Degraded to Completely Degraded	7.65	2.28	**0.56**
Completely Degraded	141.28	42.23	**36.49**
Inaccessible/not assessed	15.03	6.78	**2.20**
TOTAL	**188.65**	**54.61**	**41.93**

2.1.3 Have you submitted an application to clear native vegetation to the DEC (unless you are exempt from such a requirement)?

☐ Yes ✔ No **If yes**, on what date and to which office was the application submitted of the DEC?

Discussions have been undertaken with DER regarding the information required should a clearing permit be necessary. It is anticipated that a clearing permit will be required and consequently, the PTA proposes to submit the application once this Section 38 referral has been submitted.

2.1.4 Are you aware of any recent flora surveys carried out over the area to be disturbed by this proposal?

✔ Yes ☐ No **If yes**, please attach a copy of any related survey reports and provide the date and name of persons / companies involved in the survey(s).

If no, please do not arrange to have any biological surveys conducted prior to consulting with the DEC.

Flora surveys undertaken to date include:

Attachment 2, Appendix 1 - Forrestfield-Airport Link Environmental Investigation (GHD, 2014)

Attachment 2, Appendix 3 - A level 1 flora and vegetation survey of the Bayswater foreshore site (Morgan, 2014)

Attachment 2, Appendix 4 - Forrestfield Airport Link – Phytophthora Dieback Occurrence Assessment (Glevan Consulting, 2014)

Attachment 2, Appendix 6 - Spring Field Survey - Interim Findings (RPS, 2014)

Attachment 2, Appendix 8 - Fauna Survey of the Proposed Forrestfield-Airport Link Swan River Crossing (Bamford Consulting Ecologists, 2014)

Additional data has also been sourced from reports which were not commissioned by the PTA. The PTA was given access to the data from these reports on the basis that the reports are not published. The data sourced from these reports has been published in this report and used as part of this referral. These are as follows:

A Vegetation and Flora survey undertaken for an area within and adjacent to the Forrestfield Station Precinct (Brian Morgan, 2013).

Flora, vegetation and fauna surveys undertaken within Perth Airport in 2007 (Mattiske Consulting, 2008), 2012 (Ecologia Environment, 2013) and 2013 (Bamford Consulting Ecologists, 2013).

When combined, the areas assessed by various consultants covers the majority of the Approval Boundary, with the only data gaps occurring in cleared or degraded areas such as pasture, rail or road reserves in which ecological surveys were not considered necessary.

2.1.5 Has a search of DEC records for known occurrences of rare or priority flora or threatened ecological communities been conducted for the site?

✔ Yes ☐ No

If you are proposing to clear native vegetation for any part of your proposal, a search of DEC records of known occurrences of rare or priority flora and threatened ecological communities will be required. Please contact DEC for more information.

GHD undertook desktop searches in November 2012 (Appendix B of GHD's Environmental Investigation Report (Appendix 1 of Attachment 2)

PTA also undertook a search of DPaW's database of declared rare flora and threatened ecological communities in September 2014

2.1.6 Are there any known occurrences of rare or priority flora or threatened ecological communities on the site?

✔ Yes ☐ No

If yes, please indicate which species or communities are involved and provide copies of any correspondence with DEC regarding these matters.

<u>Rare or Priority Flora</u>

The GHD 2014 Environmental Investigation Report (Appendix 1 of Attachment 2) identified the following rare or priority species along the alignment:

- *Conospermum undulatum*
- *Eucalyptus caesia*

- *Calothamnus rupestris*

The *Conospermum undulatum* (Wavy leaved smokebush) is listed as Vulnerable under the *Wildlife Conservation Act 1950*. Thirty seven (37) individual plants were recorded within the following vegetation:

- 'Remnant *Eucalyptus marginata / E. rudis / Corymbia calophylla* woodland over a mid-storey and understorey of mixed native species' (Bush Forever Site 45) contains 12 individuals

- 'Sparse woodland of *Corymbia calophylla* over *Xanthorrhoea preissii* and low shrubs, sedges and herbs' contains 25 individuals (over two locations)

Calothamnus rupestris is listed under the *Wildlife Conservation Act 1950* as a Priority 4 species. Scattered occurrences of *Calothamnus rupestris* were recorded within the 'low open woodland of remnant *Eucalyptus marginata* and *Banksia* spp. Over a native mid storey of mixed native species and an understorey of either mixed native species or weedy grasses and herbs'.

Eucalyptus caesia is listed under the *Wildlife Conservation Act 1950* as a Priority 4 species and was identified in roadside plantings along Dundas Road, High Wycombe.

Both of these priority species have commonly been planted in landscaping and revegetation works on the Swan Coastal Plain and have become naturalised outside their normal range. Consequently, it is considered likely that the presence of these two species within the proposed alignment is not natural and any impacts will not be significant.

Threatened Ecological Communities

The GHD 2014 Environmental Investigation Report (Appendix 1 of Attachment 2) identified vegetation types within and adjacent to the Approval Boundary with potential affinities to one or more Threatened Ecological Communities (TECs). To further clarify these findings, the PTA undertook further consultation with the Department of Parks and Wildlife (DPaW) to confirm which TECs (if any) the vegetation types were most closely associated with.

As part of this consultation, Val English and Jill Pryde (Species and Communities Branch, DPaW) undertook a site visit with PTA on 27 March 2014. Soil and landform units and observations of substrate, combinations of key species and overall species composition were utilised to clarify the floristic community types (FCT) present. Correspondence with DPaW is provided as Appendix 2 of Attachment 2).

Those TECs considered likely to occur within and adjacent to the Approval Boundary based on information from GHD and DPaW are summarised below:

- SCP20a - Banksia attenuata woodland over species rich dense shrublands

- SCP20a/SCP20b - Banksia attenuata woodland over species rich dense shrublands / Banksia attenuata and/or Eucalyptus marginata woodlands of the eastern side of the Swan Coastal Plain

- SCP20c - Shrublands and woodlands of the eastern side of the Swan Coastal Plain

A survey undertaken by Brian Morgan in 2014 along the Swan River identified a potential Priority Ecological Community. Saltmarsh vegetation was identified as falling within the description for 'Subtropical and Temperate Coastal Saltmarsh'. This community is listed as a Priority 3 PEC under the *Wildlife Conservation Act 1950*.

During the design process for the proposal, the following TECs were identified for retention and protection:

- Poison Gully Creek was identified for retention during the initial assessment of environmental values as part of the design process (due to its wetland values, TECs, rare flora, fauna habitat and Aboriginal heritage), allowing for retention and protection of 2.96ha of SCP20a

- It was identified that 3.51 ha of SCP20c was located within the proposed car park and construction footprint. The car park was consequently redesigned to avoid this area.

- Significant vegetation along the Swan River, such as 'Subtropical and Temperate Coastal Saltmarsh' was identified as requiring retention and protection. This was achieved through selection of the bored tunnel construction method and the design of the surface construction footprints.

A number of design options for the rail infrastructure were considered in an attempt to avoid all direct impacts to TECs. However, due to the constrained area of the Forrestfield Station Precinct with existing rail, roads and services, none of the options considered were able to entirely avoid the TECs. Given the area of vegetation comprising the TECs is already minimal and isolated, it was considered that any reduction in area is likely to reduce the future viability of the community through edge effects such as weed invasion. PTA prepared an internal report to document the design options considered to avoid all direct impacts to TECs (Appendix 16 of Attachment 2).

The impacts to TECs from the proposal are summarised below:

TEC	Area Impacted (ha)	Area Avoided (ha)
SCP20a	-	2.96
SCP20a/20b	1.72	-
SCP20c	0.75	3.51
Subtropical and Temperate Coastal Saltmarsh	-	3.16

Further information is provided in Attachment 2.

2.1.7 If located within the Perth Metropolitan Region, is the proposed development within or adjacent to a listed Bush Forever Site? (You will need to contact the Bush Forever Office, at the Department for Planning and Infrastructure)

✔ Yes ☐ No **If yes**, please indicate which Bush Forever Site is affected (site number and name of site where appropriate).

Bush Forever Site 45 – part of this site occurs adjacent to the construction footprint of the Forrestfield Station Precinct (refer Attachment 2, Figure 14). Management measures to avoid direct impacts to this site will be outlined in the project's Construction Environmental Management Plan. These will include but not be limited to:

- Interface treatments, including fencing and set backs

- Management of access

- Design of construction sites to ensure no machinery is parked near significant vegetation
- Significant vegetation will be clearly marked on all construction plans as 'no go zones'
- Suitable hygiene measures
- Groundwater level monitoring to ensure drawdown levels remain within the ranges specified within the ASSDMP.
- Groundwater quality monitoring to ensure groundwater quality is maintained at concentrations specified within the ASSDMP.
- Adopting contingency measures such as watering to ensure there are no detrimental impacts to the ecological health of the vegetation.

Further information is provided in Attachment 2.

2.1.8 What is the condition of the vegetation at the site?

Vegetation Condition within the Approval Boundary ranges from Completely Degraded to Excellent as outlined in the table below.

Vegetation Condition	Area recorded on state land (ha)		
	Area Surveyed	Approval Boundary	Surface Disturbance Footprint
Pristine	0.00	0.00	**0.00**
Excellent	5.93	2.24	**2.24**
Very Good	5.86	0.22	**0.01**
Good to Very Good	1.97	0.35	**0.22**
Good	1.73	0.04	**0.00**
Good to Degraded	2.38	0.04	**0.00**
Degraded	6.82	0.43	**0.21**
Degraded to Completely Degraded	7.65	2.28	**0.56**
Completely Degraded	141.28	42.23	**36.49**
Inaccessible/not assessed	15.03	6.78	**2.20**
TOTAL	**188.65**	**54.61**	**41.93**

The project was designed to avoid vegetation in Good or better condition where possible, resulting in over 88% of the vegetation within the areas of surface disturbance being Degraded to Completely Degraded.

Further information is provided in Attachment 2.

2.2 Fauna

2.2.1 Do you expect that any fauna or fauna habitat will be impacted by the proposal?

(please tick) ✔ Yes **If yes**, complete the rest of this section.

☐ No **If no**, go to the next section.

2.2.2 Describe the nature and extent of the expected impact.

The GHD 2014 Environmental Investigation Report (Appendix 1 of Attachment 2) and the 2014 Bamford Consulting Ecologists Fauna Survey of the Proposed Forrestfield-Airport Link Swan River Crossing (Appendix 8 of Attachment 2) identified four significant fauna species along the alignment:

- Carnaby's Black Cockatoo (*Calyptorhynchus latirostris*)
- Forest Red tailed Black Cockatoo (*Calyptorhynchus banksia subsp. naso*)
- Quenda (*Isoodon obesulus subsp. fusciventer*)
- Water rat (*Hydromys chrysogaster*)

The nature and extent of expected impact to these species is discussed in more detail below:

<u>Black Cockatoos</u>

Site surveys identified the following potential black cockatoo habitat:

- A total of 21.7 ha of potential foraging or roosting habitat. However, due to the proposed construction methodology (bored tunnel), 3.56 ha (16.4% of habitat identified during surveys) will be impacted
- 85 potential habitat trees were identified of which only 15 will be impacted
- Of the 15 potential habitat trees, only 10 were considered potential breeding trees and of these, none had suitable hollows

<u>Quenda</u>

The Quenda (*Isoodon obesulus fusciventer*) is listed as Priority 5 species under the *Wildlife Conservation Act 1950*. The GHD 2014 Environmental Investigation Report (Appendix 1 of Attachment 2) identified 19.5 ha of potential Quenda habitat of which 5.3 ha is located within the construction footprint. This is in the Forrestfield Station where GHD observed a Quenda foraging beneath a thicket of Victorian tea tree. Potential Quenda habitat within the Forrestfield Station footprint includes:

- Sparse Woodland of *Corymbia calophylla* over *Xanthorrhoea preissii* and low shrubs, sedges and herbs
- Remnant *Eucalyptus marginata/E. rudis/Corymbia calophylla* Woodland over a mid-storey and understorey of mixed native species
- Plantings of non-native species over an understorey of weedy grasses and herbs

Water Rat

The Water Rat is listed as a Priority 4 species under the *Wildlife Conservation Act 1950*.

During the Bamford Consulting Ecologists Fauna Survey of the Proposed Forrestfield-Airport Link Swan River Crossing (Appendix 8 of Attachment 2) signs of the Water Rat were identified along the Swan River near the Tonkin Highway crossing. The thick reed and wetland habitat along the river is likely to provide a stronghold for the species amongst the developed areas of the Swan River. During the survey, 18.35 ha of this habitat type was identified, none of which will be impacted by the project.

A summary of impacts to fauna and fauna habitat is tabulated below

Potential Fauna Habitat	**Habitat Impacted**	**Habitat Avoided**
Black Cockatoo foraging habitat	3.56 ha	18.14 ha (84% of that identified on state land)
Black Cockatoo potential habitat trees	15 trees	70 trees (82% of those identified on state land)
Quenda habitat	5.3 ha	14.2 ha (73% of that identified on state land)
Water rat habitat	-	18.35 ha (100% of that identified on state land)

Further information is provided in Attachment 2.

2.2.3 Are you aware of any recent fauna surveys carried out over the area to be disturbed by this proposal?

✔ Yes ☐ No **If yes**, please attach a copy of any related survey reports and provide the date and name of persons / companies involved in the survey(s).

If no, please do not arrange to have any biological surveys conducted prior to consulting with the DEC.

Fauna surveys undertaken to date include:

Attachment 2, Appendix 1 - Forrestfield-Airport Link Environmental Investigation (GHD, 2014)

Attachment 2, Appendix 8 - Fauna Survey of the Proposed Forrestfield-Airport Link Swan River Crossing (Bamford Consulting Ecologists, 2014)

2.2.4 Has a search of DEC records for known occurrences of Specially Protected (threatened) fauna been conducted for the site?

✔ Yes ☐ No (please tick)

GHD undertook desktop searches in November 2012 (Appendix B of GHDs Environmental Investigation Report (Appendix 1 of Attachment 2)

2.2.5 Are there any known occurrences of Specially Protected (threatened) fauna on the site?

✔ Yes ☐ No **If yes**, please indicate which species or communities are involved and provide copies of any correspondence with DEC regarding these matters.

The following black cockatoo activities were observed during the GHD 2014 Environmental Investigation (Appendix 1 of Attachment 2):

- Two Carnaby's Black Cockatoos were observed flying over the survey area south along Tonkin Highway
- A small flock of Carnaby's Black Cockatoos flying north-south over the Forrestfield area and alighting in the southern area of the survey area
- A female and juvenile Forest Red tailed Black Cockatoo were observed foraging within Poison Gully Creek
- Foraging evidence was observed within woodland habitats within the survey area

Site surveys also identified the following potential black cockatoo habitat:

- A total of 21.7 ha of potential foraging or roosting habitat. However, due to the proposed construction methodology (bored tunnel), 3.56 ha (16.4% of habitat identified during surveys) will be impacted
- 85 potential habitat trees were identified of which only 15 will be impacted
- Of the 15 potential habitat trees, only 10 were considered potential breeding trees and of these, none had suitable hollows

2.3 Rivers, Creeks, Wetlands and Estuaries

2.3.1 Will the development occur within 200 metres of a river, creek, wetland or estuary?

(please tick) ✔ Yes **If yes**, complete the rest of this section.

☐ No **If no**, go to the next section.

2.3.2 Will the development result in the clearing of vegetation within the 200 metre zone?

✔ Yes ☐ No **If yes**, please describe the extent of the expected impact.

Surface water	**Vegetation clearing required**	**Comments**
Resource Enhancement Wetland (UFI15876)	This wetland and associated vegetation will be cleared as part of the proposal.	Within surface disturbance footprint.
Resource Enhancement Wetland (UFI15880) – Poison Gully Creek	Clearing within the Forrestfield Station construction footprint comprises 27.75 ha. Of this, 22.77 ha (over 80%) is Completely Degraded.	This wetland is located adjacent to part of the Forrestfield Station construction footprint which requires clearing. There will be no clearing of the vegetation that comprises the wetland.
Swan River and associated conservation category wetlands (UFI13316, UFI8586, UFI8422, UFI8420)	The area of surface disturbance associated with Cross Passage 2 (refer Attachment 2, Figure 3) is within 200m of the Swan River and associated wetlands. Construction of this cross passage will involve clearing 0.21 ha of vegetation. This vegetation is on the embankment for the Tonkin Highway road bridge in an area of Completely Degraded vegetation. The area of surface disturbance associated with Emergency Egress Shaft 1 (refer Attachment 2, Figure 3) is within 200m of the Swan River and associated wetlands. Construction of this Emergency Egress Shaft will involve clearing 1.04 ha of vegetation. This vegetation is entirely Degraded to Completely Degraded.	These wetlands are within 200 m of small construction areas. There will be no clearing of the vegetation that comprises the wetland.
Resource Enhancement Wetland (UFI8421)	The area of surface disturbance associated with Cross Passage 1 (refer Attachment 2, Figure 3) is within 200m of this wetland. Construction of this cross passage will involve clearing 0.28 ha of vegetation. This vegetation is entirely Degraded to Completely Degraded.	This wetland is located within 200 m of a small construction area. There will be no clearing of the vegetation that comprises the wetland.

Resource Enhancement Wetland (UFI15875)	Clearing within the Forrestfield Station construction footprint comprises 27.75 ha. Of this, 22.77 ha (over 80%) is Completely Degraded.	This wetland is located adjacent to part of the Forrestfield Station construction footprint which requires clearing. There will be no clearing of the vegetation that comprises the wetland.

Further information is provided in Attachment 2.

2.3.3 Will the development result in the filling or excavation of a river, creek, wetland or estuary?

✔ Yes ☐ No **If yes**, please describe the extent of the expected impact.

The area of surface disturbance in Forrestfield has been designed to avoid direct impacts to Poison Gully Creek where it flows in its natural form (i.e. to the east of Dundas Road). West of Dundas Road the creek is completely modified, and does not retain any of its natural form, and has limited environmental value. The creek is fed by surface water flows off the Darling Scarp and is dry in summer.

Temporary disturbance to the bed of the creek may be required within the modified section of the creek to facilitate relocation of underground services. A small portion of this section of the creek may also be piped.

Flow within the creek will not be compromised during construction or operation of the FAL. It is also likely that a gas pipeline which is buried beneath the modified section of the creek within the area of surface disturbance will relocated. This will require in this localised area.

Further information is provided in Attachment 2.

There will be no other filling or excavation of a river, creek, wetland or estuary.

2.3.4 Will the development result in the impoundment of a river, creek, wetland or estuary?

☐ Yes ✔ No **If yes**, please describe the extent of the expected impact.

2.3.5 Will the development result in draining to a river, creek, wetland or estuary?

☐ Yes ✔ No **If yes**, please describe the extent of the expected impact.

2.3.6 Are you aware if the proposal will impact on a river, creek, wetland or estuary (or its buffer) within one of the following categories? (please tick)

Conservation Category Wetland The project will not involve clearing any vegetation within a Conservation Category Wetland. Preliminary modelling also indicates that there will be no dewatering impacts to Conservation Category Wetlands.	☐ Yes	✔ No	☐ Unsure
Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998	☐ Yes	✔ No	☐ Unsure
Perth's Bush Forever site The project occurs adjacent to Bush Forever Site 45. No vegetation within this site will be impacted and management measures will be in place to ensure the site is not impacted during or post construction activities.	☐ Yes	✔ No	☐ Unsure
Environmental Protection (Swan & Canning Rivers) Policy 1998 The proposal involves tunnelling under the river to avoid any impacts to bed or banks of the Swan River. Management measures will be in place to ensure any surface construction works within vicinity of the river do not impact on water quality.	☐ Yes	✔ No	☐ Unsure
The management area as defined in s4(1) of the *Swan River Trust Act 1988* The proposal involves tunnelling under the Swan River Trust Management Area. Figure 6 in Attachment 2 shows the proposed infrastructure in relation to the Swan River Trust Management Area.	☐ Yes	✔ No	☐ Unsure
Which is subject to an international agreement, because of the importance of the wetland for waterbirds and waterbird habitats (e.g. Ramsar, JAMBA, CAMBA) No RAMSAR wetlands will be impacted by the proposal and based on fauna surveys, no habitat important to significant water birds will be impacted.	☐ Yes	✔ No	☐ Unsure

Further information is provided in Attachment 2.

2.4 Significant Areas and/ or Land Features

2.4.1 Is the proposed development located within or adjacent to an existing or proposed National Park or Nature Reserve?

☐ Yes ✔ No **If yes**, please provide details.

2.4.2 Are you aware of any Environmentally Sensitive Areas (as declared by the Minister under section 51B of the EP Act) that will be impacted by the proposed development?

✔ Yes ☐ No **If yes**, please provide details.

There is one ESA partly located within an area of surface disturbance as shown in Attachment 2 on Figure 14. This is associated with the Swan River buffer zone. However, the area of surface disturbance has been positioned by the PTA on the embankment for the Tonkin Highway road bridge in an area of Completely Degraded vegetation.

Further information is provided in Attachment 2.

2.4.3 Are you aware of any significant natural land features (e.g. caves, ranges etc) that will be impacted by the proposed development?

☐ Yes ✔ No **If yes**, please provide details.

2.5 Coastal Zone Areas (Coastal Dunes and Beaches)

2.5.1 Will the development occur within 300metres of a coastal area?

(please tick) ☐ Yes **If yes**, complete the rest of this section.

✔ No **If no**, go to the next section.

2.5.2 What is the expected setback of the development from the high tide level and from the primary dune?

2.5.3 Will the development impact on coastal areas with significant landforms including beach ridge plain, cuspate headland, coastal dunes or karst?

☐ Yes ☐ No **If yes**, please describe the extent of the expected impact.

2.5.4 Is the development likely to impact on mangroves?

☐ Yes ☐ No **If yes**, please describe the extent of the expected impact.

2.6 Marine Areas and Biota

2.6.1 Is the development likely to impact on an area of sensitive benthic communities, such as seagrasses, coral reefs or mangroves?

☐ Yes ✔ No **If yes**, please describe the extent of the expected impact.

2.6.2 Is the development likely to impact on marine conservation reserves or areas recommended for reservation (as described in *A Representative Marine Reserve System for Western Australia*, CALM, 1994)?

☐ Yes ✔ No **If yes**, please describe the extent of the expected impact.

2.6.3 Is the development likely to impact on marine areas used extensively for recreation or for commercial fishing activities?

☐ Yes ✔ No **If yes**, please describe the extent of the expected impact, and provide any written advice from relevant agencies (e.g. Fisheries WA).

2.7 Water Supply and Drainage Catchments

2.7.1 Are you in a proclaimed or proposed groundwater or surface water protection area?

(You may need to contact the Department of Water (DoW) for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

✔ Yes ☐ No **If yes**, please describe what category of area.

Mapping indicates that the project occurs within a 'RIWI Groundwater area – To be developed'. Groundwater management and any monitoring requirements (quality and levels) will be addressed in an Acid Sulfate Soil Dewatering Management Plan. Dewatering licences will also be obtained from the Department of Water.

2.7.2 Are you in an existing or proposed Underground Water Supply and Pollution Control area?

(You may need to contact the DoW for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

☐ Yes ✔ No **If yes**, please describe what category of area.

2.7.3 Are you in a Public Drinking Water Supply Area (PDWSA)?

(You may need to contact the DoW for more information or refer to the DoW website. A proposal to clear vegetation within a PDWSA requires approval from DoW.)

☐ Yes ✔ No **If yes**, please describe what category of area.

2.7.4 Is there sufficient water available for the proposal?

(Please consult with the DoW as to whether approvals are required to source water as you propose. Where necessary, please provide a letter of intent from the DoW)

✔ Yes ☐ No (please tick)

2.7.5 Will the proposal require drainage of the land?

☐ Yes ✔ No **If yes**, how is the site to be drained and will the drainage be connected to an existing Local Authority or Water Corporation drainage system? Please provide details.

The site will not need to be drained as part of the proposed works. It will however involve temporary dewatering to construct some of the underground structures. Importantly, dewatering or alterations to the groundwater regime are not required to facilitate construction of bored tunnels.

Further information is provided in Attachment 2.

2.7.6 Is there a water requirement for the construction and/ or operation of this proposal?

(please tick) ✔ Yes **If yes**, complete the rest of this section.

☐ No **If no**, go to the next section.

Water will be required during construction for the proposal (e.g. for the tunnel boring machine and general construction activities). For the operational phase, minimal water will be required for uses such a toilets and landscaping.

2.7.7 What is the water requirement for the construction and operation of this proposal, in kilolitres per year?

<u>During Construction Activities</u>

It is estimated that between 0% and 50% of the water required for construction will be recycled for reuse, however the actual percentage at this point is unknown so both values (for 0% and 50%) have been provided below:

Percentage Re-used	**Volume (m^3) / day**
0% recycled	1,600 to 2,100 m^3 (with 1,400 to 1,700 m^3 discharged as waste)
50% recycled	800 to 1,200 m^3 (with 600 to 800 m^3 discharged as waste)

The tunnel boring machine will also require cooling during boring activities, it has been estimated that approximately 1,300m^3 will be required per day for cooling purposes.

During the Operational Phase

It is anticipated that the proposed stations will have the most similarities with the following existing stations:

- Airport West Station – Esplanade Station
- Consolidated Terminal Station – Perth Underground Station
- Forrestfield Station – Midland Station

Past water use at each of the existing stations has been used to estimate the water use expected at each of the FAL stations. This water use is tabulated below for the last 3 years.

Station	**Water Use (kL / year)**		
	2012	**2013**	**2014**
Esplanade Station	899	1,137	2,162
Perth Underground	507	513	308
Midland Station	2,834	2,730	3,301

As can be seen from the above data, the average water use per year for each of the proposed stations could be expected as follows:

- Airport West Station – Approximately 1,000 to 2,000 kL per year
- Consolidated Terminal Station – Approximately 400 to 500 kL per year
- Forrestfield Station – Approximately 2,500 to 3,500 kL per year

2.7.8 What is the proposed source of water for the proposal? (e.g. dam, bore, surface water etc.)

A number of options are currently being considered for water use including:

- Potable mains water (Water Corporation)
- Extraction bore
- Treated dewatering effluent

2.8 Pollution

2.8.1 Is there likely to be any discharge of pollutants from this development, such as noise, vibration, gaseous emissions, dust, liquid effluent, solid waste or other pollutants?

(please tick) ✔ Yes **If yes**, complete the rest of this section.

☐ No **If no**, go to the next section.

During construction there will be emissions of noise, vibration and dewatering effluent. Construction noise and vibration emissions will be temporary in nature and readily manageable. It is proposed that the majority of dewatering effluent will be re-injected back into the aquifer.

During operation of the Forrestfield-Airport Link there will be emissions of noise and vibration. Construction and operation of the rail in underground tunnels will mitigate the majority of impacts associated with noise and vibration.

Detailed information on noise and vibration emissions and groundwater management is provided in Attachment 2.

2.8.2 Is the proposal a prescribed premise, under the Environmental Protection Regulations 1987?

(Refer to the EPA's *General Guide for Referral of Proposals to the EPA under section 38(1) of the EP Act 1986* for more information)

☐ Yes ✔ No **If yes**, please describe what category of prescribed premise.

The proposal is not a prescribed premise under the Environmental Protection Regulations 1987. Construction of the project may require prescribed premises to be constructed, for example for spoil reuse. The requirement for approvals under Part V of the EP Act 1986 will be assessed as construction requirements become more apparent.

2.8.3 Will the proposal result in gaseous emissions to air?

☐ Yes ✔ No **If yes**, please briefly describe.

2.8.4 Have you done any modelling or analysis to demonstrate that air quality standards will be met, including consideration of cumulative impacts from other emission sources?

☐ Yes ✔ No **If yes**, please briefly describe.

2.8.5 Will the proposal result in liquid effluent discharge?

✔ Yes ☐ No **If yes**, please briefly describe the nature, concentrations and receiving environment.

No dewatering is required as part of the tunnel boring process. However, dewatering will be required during construction of the underground structures such as stations and emergency egress shafts.

Dewatering activities will result in dewatering effluent. It is proposed that the majority of dewatering effluent will be re-injected back into the aquifer. This will reduce the amount of effluent discharged to other receiving environments as well as reducing impacts from groundwater drawdown due to dewatering activities.

Detailed information on groundwater management is provided in Attachment 2.

2.8.6 If there is likely to be discharges to a watercourse or marine environment, has any analysis been done to demonstrate that the State Water Quality Management Strategy or other appropriate standards will be able to be met?

☐ Yes ✔ No **If yes**, please describe.

The majority of dewatering effluent will be reinjected back into the aquifer (after appropriate treatment if required). Should there be a requirement to discharge any of the effluent into a watercourse an assessment will be undertaken to demonstrate that the State Water Quality Management Strategy or other appropriate standards will be able to be met.

Water quality standards which will need to be met as well as monitoring and contingency measures to ensure no adverse impacts to the receiving environment will then be specified in the Acid Sulfate Soils and Dewatering Management Plan.

2.8.7 Will the proposal produce or result in solid wastes?

✔ Yes ☐ No **If yes**, please briefly describe the nature, concentrations and disposal location/ method.

The tunnel boring machine will excavate approximately 770,000 m^3 of spoil. The PTA is currently considering options for re-use of this material. As part of the current geotechnical and environmental investigations, the suitability of excavated material for different uses will be assessed to assist in identifying potential re-use opportunities. It is recognised however that some of the excavated material may not be suitable for certain re-use opportunities and may have to be disposed of to landfill.

2.8.8 Will the proposal result in significant off-site noise emissions?

☐ Yes ✔ No **If yes**, please briefly describe.

Construction noise and vibration emissions will be temporary in nature and readily manageable. Operation of the rail in underground tunnels will mitigate the majority of noise and vibration impacts.

Detailed information on noise and vibration emissions is provided in Attachment 2.

2.8.9 Will the development be subject to the Environmental Protection (Noise) Regulations 1997?

✔ Yes ☐ No **If yes**, has any analysis been carried out to demonstrate that the proposal will comply with the Regulations?

Please attach the analysis.

Potential noise impacts resulting from construction of the proposal will be subject to the Environmental Protection (Noise) Regulations 1997. Measures to mitigate construction noise impacts will be developed by the lead contractor as the detailed design for the project progresses and specific construction activities and timings are known.

A Construction Noise and Vibration Management Plan (CNVMP) will be prepared by the lead contractor prior to the commencement of construction. Consultation with key stakeholders is a key element of managing noise and vibration impacts during construction. The CNVMP will detail consultation requirements, control measures to be implemented during construction and monitoring and reporting requirements. The CNVMP will be endorsed by the DER and other relevant regulatory agencies as required.

Noise Management Plans for construction work which is undertaken out of hours will also be prepared. Noise Management Plans will be prepared on a case by case basis as specific construction activities and timings are known. The plans will be subject to approval by the DER or the Local Government Authority acting on behalf of the DER.

Operation noise emission will be subject to the State Planning Policy 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning (SPP5.4). Preliminary modelling has indicted that operational noise emissions are able to achieve compliance with SPP5.4

Detailed information on noise and vibration emissions and groundwater management is provided in Attachment 2.

2.8.10 Does the proposal have the potential to generate off-site, air quality impacts, dust, odour or another pollutant that may affect the amenity of residents and other "sensitive premises" such as schools and hospitals (proposals in this category may include intensive agriculture, aquaculture, marinas, mines and quarries etc.)?

✔ Yes ☐ No **If yes**, please describe and provide the distance to residences and other "sensitive premises".

There is the potential for dust and light to be generated during the following construction activities:

- Construction of the Airport West Station will involve some vegetation clearing and excavation activities which has the potential to generate dust. This site is likely to comprise a construction site for the life of the construction phase of the project. However dust generating activities are unlikely to extend for that entire period.
- Construction of the Forrestfield Station will involve some vegetation clearing, earthmoving and excavation activities which have the potential to generate dust. This site is likely to comprise a construction site for the life of the construction phase of the project. However dust generating activities are unlikely to extend for that entire period.

- Construction of egress shafts and cross passages along the entire alignment will involve some vegetation clearing and earthmoving or excavation activities which have the potential to generate dust. These activities are anticipated to take no more than 6 months to complete.

Out of hours work may also be undertaken at these locations which have the potential to affect the amenity of sensitive receptors from light emissions.

Sensitive receptors which may be impacted by the proposed activities are listed below:

- Aged Care facilities, with the closest facility being located approximately 0.25km from a temporary construction footprint (Mertome Village)
- Child Care Facilities, with the closest facility being located approximately 0.25km from a temporary construction footprint (Mulberry Tree Child Care)
- Schools, with the closest school being located approximately 0.4km from a temporary construction footprint (Durham Road School and Bayswater Primary School)
- Residences, there are residences located along the majority of the alignment. Some temporary construction footprints are located adjacent to residential properties.

The Construction Environmental Management Plan will outline mitigation and management measures to prevent impacts to sensitive receptors. Should any complaints be received from surrounding land users appropriate monitoring and mitigation measures will be put in place.

2.8.11 If the proposal has a residential component or involves “sensitive premises”, is it located near a land use that may discharge a pollutant?

☐ Yes ☐ No ✔ Not Applicable

If yes, please describe and provide the distance to the potential pollution source

2.9 Greenhouse Gas Emissions

2.9.1 Is this proposal likely to result in substantial greenhouse gas emissions (greater than 100 000 tonnes per annum of carbon dioxide equivalent emissions)?

☐ Yes ✔ No **If yes**, please provide an estimate of the annual gross emissions in absolute and in carbon dioxide equivalent figures.

No modelling has been undertaken to date to predict the greenhouse emissions from the proposal. However, greenhouse emissions modelling and calculations undertaken by PTA on a previous rail project comprising up to 80km of rail has been used as a preliminary indicator. It was calculated that the approximate greenhouse gas emissions for the previous project would be equivalent to 23,530 tonnes per annum of carbon dioxide. Consequently, considering this proposal only comprises 9 km of rail it is unlikely that the proposal will generate substantial greenhouse emissions in excess of 100,000 tonnes per annum.

2.9.2 Further, if yes, please describe proposed measures to minimise emissions, and any sink enhancement actions proposed to offset emissions.

NA

2.10 Contamination

2.10.1 Has the property on which the proposal is to be located been used in the past for activities which may have caused soil or groundwater contamination?

✔ Yes ☐ No ☐ Unsure **If yes**, please describe.

Known contaminated sites or previous land uses which may have caused contamination have been identified within or adjacent to the alignment. These are generally associated with former or current industrial or commercial land uses or illegal dumping of waste materials.

Detailed information on the potentially contaminated sites within or adjacent to the project is provided in Attachment 2.

2.10.2 Has any assessment been done for soil or groundwater contamination on the site?

✔ Yes ☐ No **If yes**, please describe.

A Preliminary Site Investigation and Sampling Analysis Plan have been produced by GHD. These documents were reviewed and approved by an accredited contaminated sites auditor, the DER and the Department of Health.

Further assessments which are proposed or are currently being undertaken include:

- Detailed Site Investigation (DSI)
- Site Management Plan (SMP) (if the DSI identifies any contaminated sites requiring remediation or contamination)

Detailed information on the investigations which have been completed and are proposed is provided in Attachment 2.

2.10.3 Has the site been registered as a contaminated site under the *Contaminated Sites Act 2003*? (on finalisation of the CS Regulations and proclamation of the CS Act)

☐ Yes ✔ No **If yes**, please describe.

No sites within the approval boundary have been registered as a contaminated site under the Contaminated Sites Act 2003. There are sites in the surrounding area which are registered under the CS Act.

Detailed information on the location of these sites is provided in Attachment 2.

2.11 Social Surroundings

2.11.1 Is the proposal on a property which contains or is near a site of Aboriginal ethnographic or archaeological significance that may be disturbed?

☑ Yes ☐ No ☐ Unsure **If yes**, please describe.

Aboriginal heritage desktop and site investigations identified eight potential Aboriginal heritage sites within the Approval Boundary. Three of the eight sites are registered Aboriginal heritage sites as it has been deemed that they meet the definition of a site as per Section 5 or Section 39 of the Aboriginal Heritage Act 1972. The other five sites are Heritage Places which have been assessed as not meeting the criteria of a site.

Consultation with the Department of Aboriginal Affairs (DAA) and Aboriginal spokespersons indicates that the project may impact on the Swan River (Site ID 3536) and Poison Gully Creek (Site ID 25023) heritage sites due to their spiritual and mythological significance.

Consultation with the DAA and Aboriginal spokespersons is ongoing. If impacts to the heritage values of these sites are likely, a Section 18 notice seeking consent to use the land containing registered Aboriginal heritage sites under the Aboriginal Heritage Act 1972 will be sought.

Ongoing consultation with key stakeholders will be undertaken during the remaining planning phase of the project and during its delivery. Construction heritage management measures including procedures should Aboriginal artefacts are encountered will be specified in the project's CEMP.

Further information is provided in Attachment 2.

2.11.2 Is the proposal on a property which contains or is near a site of high public interest (e.g. a major recreation area or natural scenic feature)?

☑ Yes ☐ No **If yes**, please describe.

The proposal traverses the Swan River. The rail line will be tunnelled under the river and will therefore not have any impacts its recreational value. Any surficial construction activities which are undertaken within vicinity of the river will be managed to ensure water quality or the amenity of the Swan River is not impacted.

2.11.3 Will the proposal result in or require substantial transport of goods, which may affect the amenity of the local area?

☐ Yes ☑ No **If yes**, please describe.

Excavated spoil during will need to be transported from the construction site in Forrestfield, either for re-use elsewhere or disposal of at landfill. The Forrestfield area already comprises industrial areas and key freight routes. Consequently, trucks transporting these materials are unlikely to impact the amenity of the local area.

3. PROPOSED MANAGEMENT

3.1 Principles of Environmental Protection

3.1.1 Have you considered how your project gives attention to the following Principles, as set out in section 4A of the EP Act? (For information on the Principles of Environmental Protection, please see EPA Position Statement No. 7, available on the EPA website)

1. The precautionary principle.	✔ Yes	☐ No
2. The principle of intergenerational equity.	✔ Yes	☐ No
3. The principle of the conservation of biological diversity and ecological integrity.	✔ Yes	☐ No
4. Principles relating to improved valuation, pricing and incentive mechanisms.	✔ Yes	☐ No
5. The principle of waste minimisation.	✔ Yes	☐ No

3.1.2 Is the proposal consistent with the EPA's Environmental Protection Bulletins/Position Statements and Environmental Assessment Guidelines/Guidance Statements (available on the EPA website)?

✔ Yes ☐ No

3.2 Consultation

3.2.1 Has public consultation taken place (such as with other government agencies, community groups or neighbours), or is it intended that consultation shall take place?

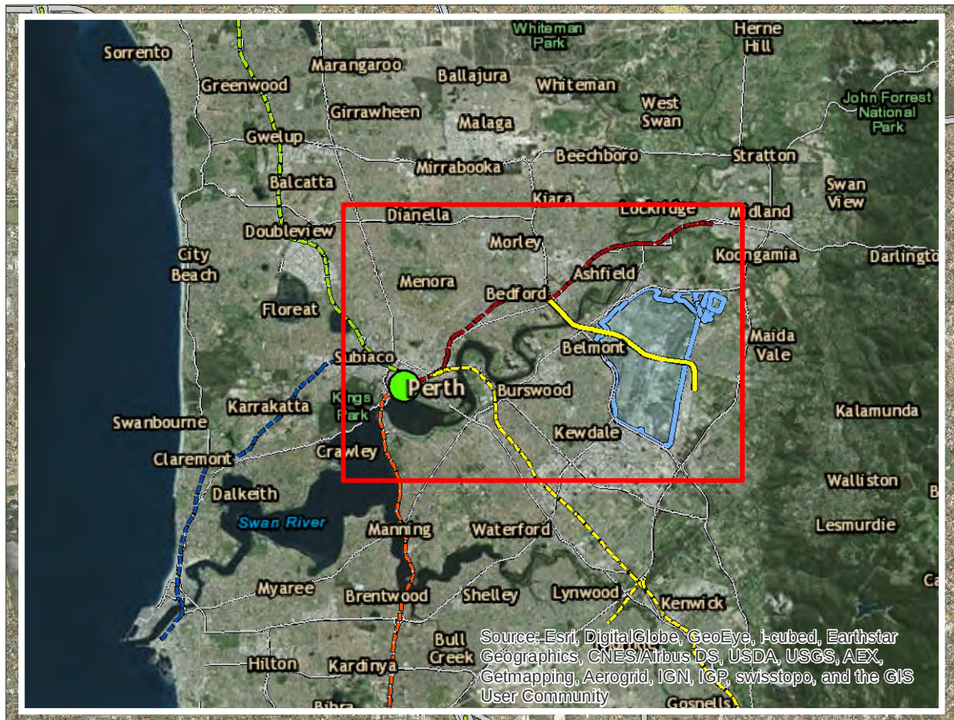
✔ Yes ☐ No **If yes**, please list those consulted and attach comments or summarise response on a separate sheet.

PTA has undertaken consultation with relevant stakeholders from the early stages of the FAL design process. Comments and advice received from government agencies and other relevant stakeholders were incorporated into the concept design of the FAL. To date, consultation has been undertaken with government agencies including federal agencies, local government authorities, Perth Airport and the community. Full details of consultation undertaken to date is included in Attachment 2.

The PTA is currently working with the local government agencies to develop stakeholder reference groups. Public consultation will continue throughout the procurement and delivery phases of the project

The PTA has also developed a project website which contains general information on the project as well as details of the environmental and heritage considerations. The website has a feedback section which members of the community can use to seek information about the project. All queries are responded to in a timely manner.

Government of **Western Australia**
Public Transport Authority



Legend

- Forrestfield-Airport Link
- Stations
- Major Roads
- Commonwealth Zoning

PTA Rail System

- Armadale / Thornlie Line
- Clarkson Line
- Fremantle Line
- Mandurah Line
- Midland Line

Map by: MDN

A3 scale: 1:50,000

0 1 2Km

Coordinate System: GDA 1994 Perth Coastal Grid 1994
Projection: Transverse Mercator
Datum: GDA 1994
Units: Meter

Date: 12/11/2014

Version: 0

Forrestfield-Airport Link Section 38(1) Referral

Attachment 1: Location Plan