



## CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

<b>Purpose Permit number:</b>	CPS 9062/1
<b>Permit Holder:</b>	Arc Infrastructure Pty Ltd
<b>Duration of Permit:</b>	From 27 November 2020 – 27 November 2025

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

### PART I – CLEARING AUTHORISED

**1. Purpose for which clearing may be done**

Clearing for the purpose of railway infrastructure.

**2. Land on which clearing is to be done**

Avon Location 28391 (Crown Reserve R 30192)

**3. Area of Clearing**

The permit holder must not clear more than 14 native trees within the area cross-hatched yellow on the attached Plan 9062/1a, Plan 9062/1b and Plan 9062/1c.

**4. Period during which clearing is authorised**

The Permit Holder must not clear any native vegetation after 31 December 2020.

### PART II – MANAGEMENT CONDITIONS

**5. Avoid, minimise and reduce the impacts and extent of clearing**

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- (a) avoid the clearing of native vegetation;
- (b) minimise the amount of native vegetation to be cleared; and
- (c) reduce the impact of clearing on any environmental value.

**6. Weed and dieback control**

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

### **PART III – RECORD KEEPING AND REPORTING**

#### **7. Records must be kept**

The Permit Holder must maintain the following records for activities done pursuant to this Permit, in relation to the clearing of native vegetation authorised under this Permit:

- (a) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
- (b) the date that the area was cleared;
- (c) the size of the area cleared (in hectares);
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 5 of this Permit; and
- (e) actions taken to minimise the risk of the introduction and spread of weeds and dieback in accordance with condition 6 of this Permit.

#### **8. Reporting**

The permit holder must provide to the *CEO* the records required under condition 7 of this permit when requested by the *CEO*.

#### **DEFINITIONS**

The following meanings are given to terms used in this Permit:

*CEO*: means the Chief Executive Officer of the Department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*;

*dieback* means the effect of *Phytophthora* species on native vegetation;

*fill* means material used to increase the ground level, or fill a hollow;

*mulch* means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

*weed/s* means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



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Mathew Gannaway  
MANAGER  
NATIVE VEGETATION REGULATION

*Officer delegated under Section 20  
of the Environmental Protection Act 1986*

4 November 2020

# Plan 9062/1 a

116°16'4.800"E

116°16'8.400"E

116°16'12.000"E

31°34'30.000"S

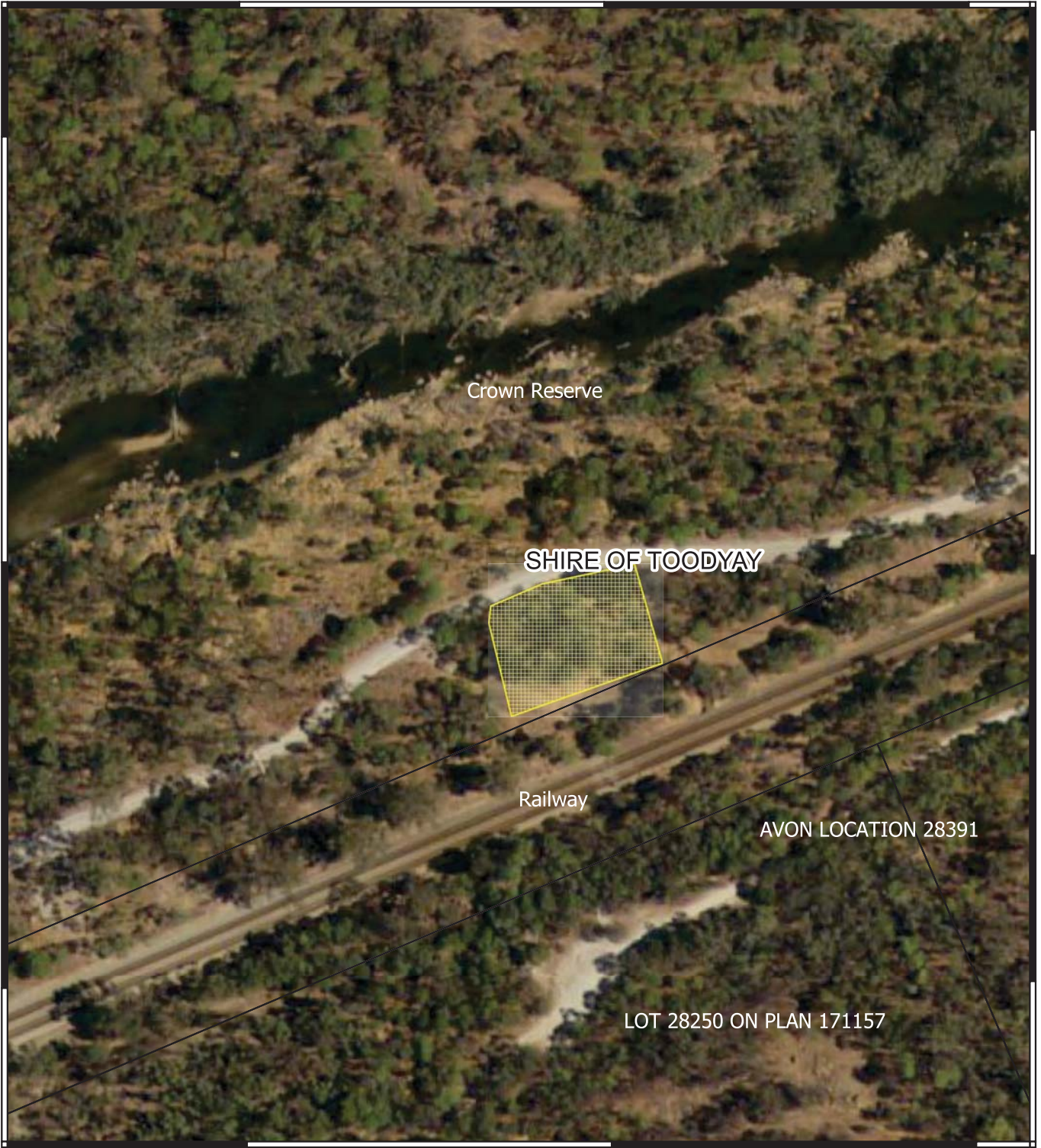
31°34'30.000"S

31°34'33.600"S

31°34'33.600"S

31°34'37.200"S

31°34'37.200"S




116°16'4.800"E

116°16'8.400"E

116°16'12.000"E

## Legend

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Image

1:1500



0 20 40 60 m



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Gannaway  
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Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA



# Plan 9062/1 b

116°12'25.200"E

116°12'28.800"E

116°12'32.400"E

31°36'21.600"S

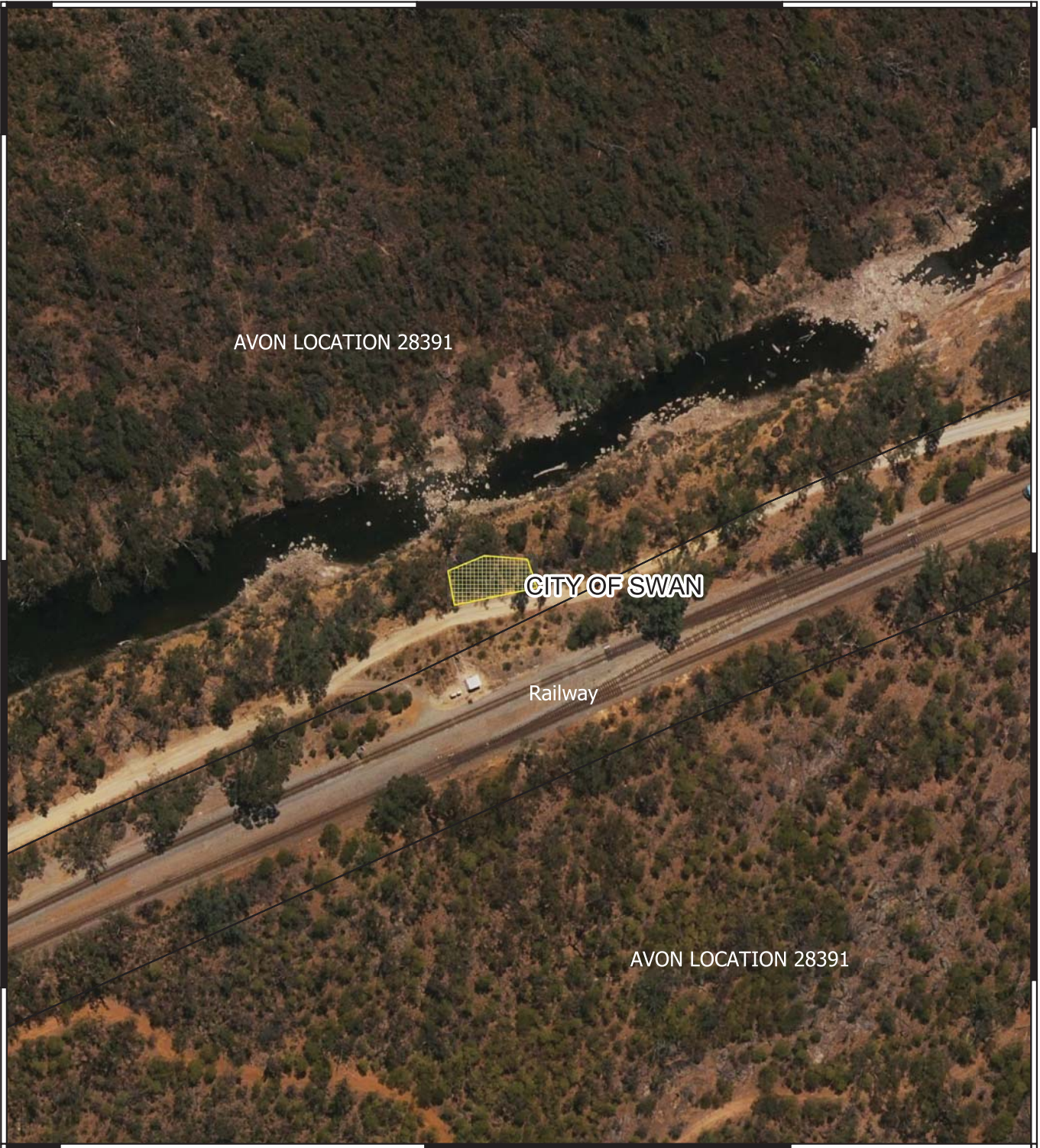
31°36'25.200"S

31°36'28.800"S

31°36'21.600"S

31°36'25.200"S

31°36'28.800"S





116°12'25.200"E

116°12'28.800"E

116°12'32.400"E

## Legend

-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

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Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA



# Plan 9062/1 c

116°11'24.000"E

116°11'27.600"E

31°37'55.200"S

31°37'55.200"S

31°37'58.800"S




31°37'58.800"S



116°11'24.000"E

116°11'27.600"E

## Legend

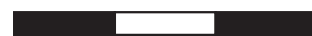
-  CPS areas approved to clear
-  Land TenureLGATE - 226
-  Local Government Authorities

Image

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Officer delegated under section 20 of the  
Environmental Protection Act 1986



GOVERNMENT OF  
WESTERN AUSTRALIA



# Clearing Permit Decision Report

## 1. Application details and outcome

### 1.1. Permit application details

<b>Permit number:</b>	CPS 9062/1
<b>Permit type:</b>	Purpose permit
<b>Applicant name:</b>	Arc Infrastructure Pty Ltd
<b>Application received:</b>	22 September 2020
<b>Application area:</b>	14 native trees
<b>Purpose of clearing:</b>	Railway infrastructure
<b>Method of clearing:</b>	Mechanical
<b>Property:</b>	Avon Location 28391 (Crown Reserve R 30192)
<b>Location (LGA area/s):</b>	City of Swan, Shire of Toodyay
<b>Localities (suburb/s):</b>	Moondyne and Avon Valley National Park

### 1.2. Description of clearing activities

The vegetation applied to be cleared is a total of 14 native trees within three project areas (see Figures 1, 2 and 3, Section 1.5).

The application is to selectively clear 14 native trees to allow sunlight to reach solar panels that are being installed to replace overhead powerlines related to railway signalling infrastructure.

The method of clearing is to be completed by cutting with a chainsaw with access to the trees provided by an elevated work platform which will remain within access tracks.

### 1.3. Decision on application and key considerations

<b>Decision:</b>	Granted
<b>Decision date:</b>	4 November 2020
<b>Decision area:</b>	14 native trees, as depicted in Section 1.5, below.

### 1.4. Reasons for decision

This clearing permit application was made in accordance with section 51E of the *Environmental Protection Act 1986* (EP Act) and was received by the Department of Water and Environmental Regulation (DWER) on 22 September 2020. DWER advertised the application for public comment and no submissions were received.

In undertaking their assessment, and in accordance with section 51O of the EP Act, the Delegated Officer has given consideration to the Clearing Principles in Schedule 5 of the EP Act (see Appendix B), relevant planning instruments, and any other pertinent matters they deemed relevant to the assessment (see Section 3). The Delegated Officer noted that lawful authority applicable to Regulations 4 of the *Conservation and Land Management Regulation 2002* has been granted by the Department of Biodiversity, Conservation and Attractions (DBCA) for the proposed works.

In particular, the Delegated Officer has determined that:

- The proposed clearing may increase the spread of weeds and dieback into adjacent vegetation (see Section 3.2.1). To minimise this risk, a condition has been placed on the permit requiring the implementation of weed and dieback management practices.
- The applicant has suitably demonstrated avoidance and minimisation measures (see Section 3.1).



In determining to grant a clearing permit subject to conditions, the Delegated Officer found that given the small area of the proposed clearing and the management measures implemented, the proposed clearing is not likely to lead to an unacceptable risk to the environment.

### 1.5. Site maps

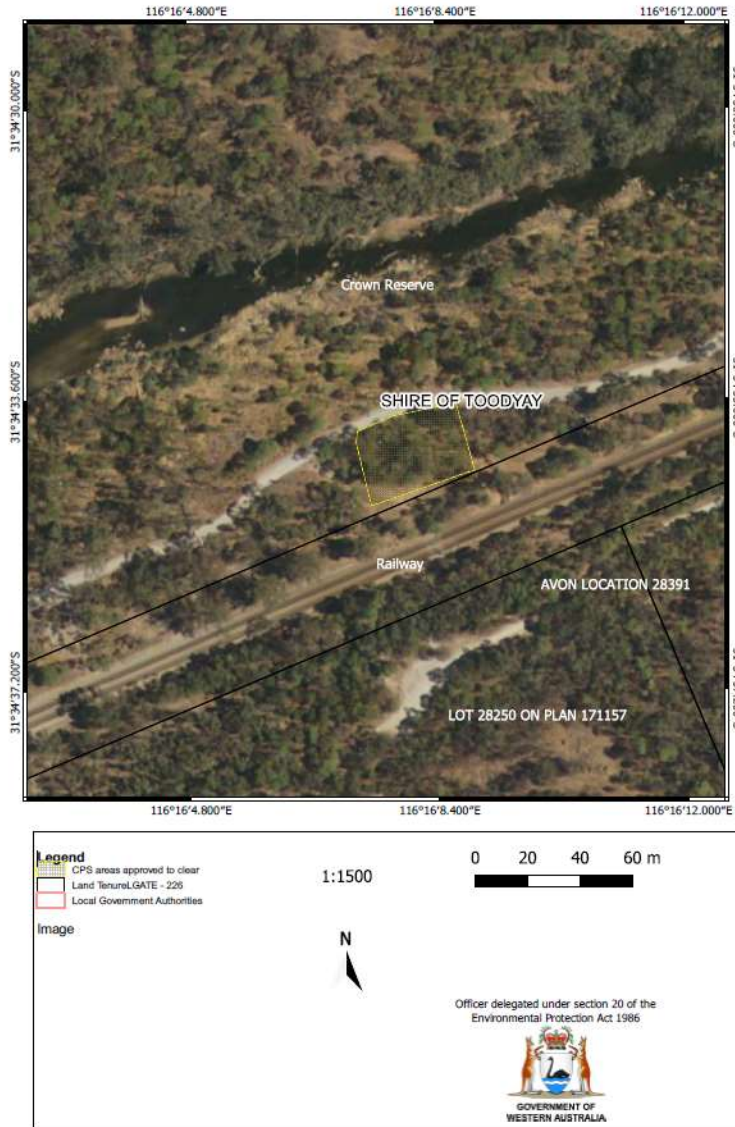


Figure 1. Map of the application area.

The area cross-hatched yellow indicate the area authorised to be cleared under the granted clearing permit.

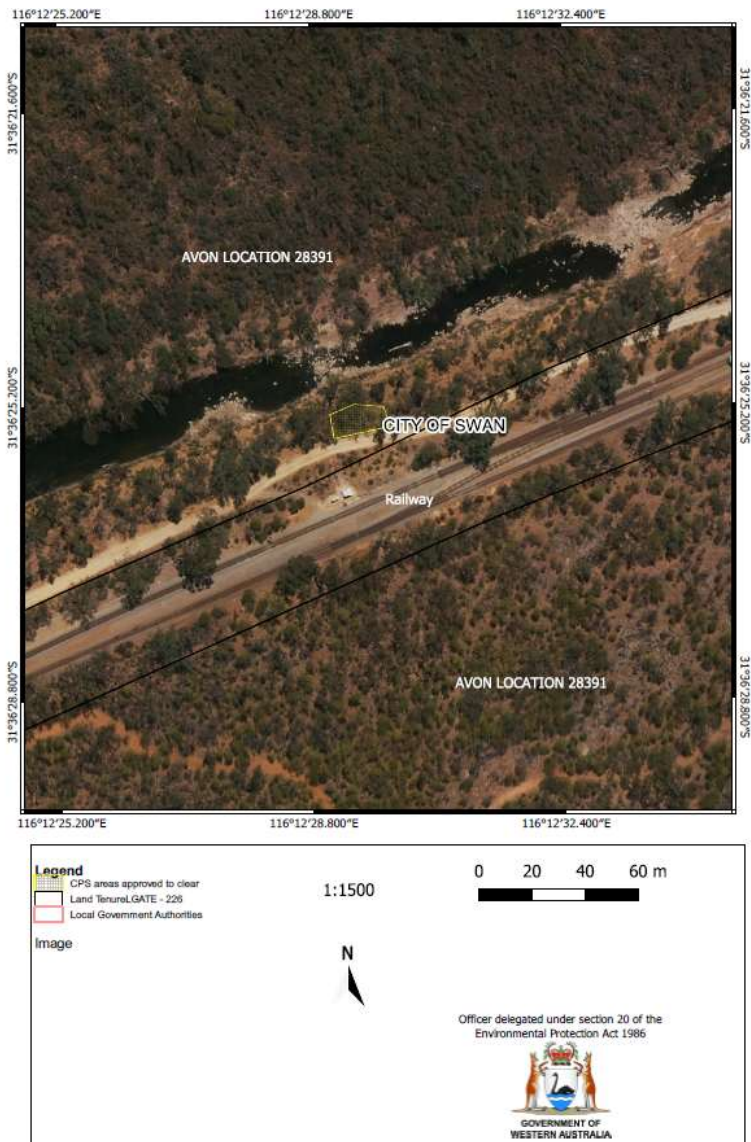


Figure 2. Map of the application area.

The area cross-hatched yellow indicate the area authorised to be cleared under the granted clearing permit.





Figure 3. Map of the application area.

The area cross-hatched yellow indicate the area authorised to be cleared under the granted clearing permit.

## 2. Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.3), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

1. the precautionary principle;
2. the principle of intergenerational equity; and
3. the principle of the conservation of biological diversity and ecological integrity;

Other legislation of relevance for this assessment include:

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)

### **3. Detailed assessment of application**

#### **3.1. Avoidance and mitigation measures**

The applicant advised that the proposed clearing would consist of trees only and consideration had been given to the location of the proposed infrastructure to avoid dense areas of vegetation (Arc Infrastructure Pty Ltd, 2020).

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

#### **3.2. Assessment of environmental impacts**

In assessing the application in accordance with section 51O of the EP Act, the Delegated Officer has examined the application and site characteristics (Appendix A) and considered whether the clearing poses a risk to environmental values. The assessment against the Clearing Principles is contained in Appendix B.

This assessment identified that the clearing may pose a risk to the environmental value of conservation areas, and that this required further consideration. The detailed consideration and assessment of the clearing impacts against the specific environmental values is provided below. Where the assessment found that the clearing presents an unacceptable risk to environmental values, conditions aimed at controlling and/or ameliorating the impacts have been imposed under sections 51H and 51I of the EP Act. These are also identified below.

##### **3.2.1. Environmental value: conservation areas – Clearing Principle (h)**

Assessment: The proposed clearing is within the Avon Valley National Park. The proposed clearing has the potential to impact on the remaining vegetation by increasing weed species and potentially dieback

Outcome: To address the above impacts, weed and dieback management conditions will be added to the permit.

#### **3.3. Relevant planning instruments and other matters**

4. Other relevant matters in relation to the proposed clearing include:

The proposed clearing is (in part) within a registered Aboriginal Heritage Place (Avon River, ID: 15979). It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

The permit holder has obtained authority under Regulation 4 of the *Conservation and Land Management Regulations 2002* by DBCA. It is the permit holder's responsibility to comply with the conditions stated under this authority.



## Appendix A – Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to DWER at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix B.

### 1. Site characteristics

Site characteristic	Details
Local context	The proposed clearing is part of an expansive tract of native vegetation. It is surrounded by native vegetation which appears to be intact and forms part of the Avon Valley National Park. Spatial datasets indicate the local area (10 km radius of the proposed clearing area) retains approximately 68% of the original native vegetation cover.
Vegetation description	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area consists of 14 native trees with a mostly weedy understory. The 14 native trees appear to be a mix of <i>Eucalyptus</i> species, mainly <i>Corymbia calophylla</i>, <i>Eucalyptus patens</i> and <i>Eucalyptus marginata</i>.</p> <p>Representative photos are available in Appendix D.</p> <p>This is consistent with the mapped vegetation type:</p> <ul style="list-style-type: none"> <li>• East Darling 4 complex which is described as Jarrah, marri and wandoo (<i>Eucalyptus marginata</i>, <i>Corymbia calophylla</i>, <i>E. wandoo</i>).</li> </ul>
Vegetation condition	<p>Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in degraded (Keighery, 1994) condition.</p> <p>The full Keighery condition rating scale is provided in Appendix C. Representative photos are available in Appendix D.</p>
Soil description	The soil is mapped as the Helena 1 Phase which is described as moderate to steep sideslopes (10-35%) and narrow drainage floors with areas of rock outcrop. Variable mostly well drained duplex and gradational soils. Wandoo and accedens woodland, <i>E. marginata</i> on gravels, <i>Acacia</i> and <i>Casuarina</i> on rocky soils.
Land degradation risk	<p>The land degradation risk categories that apply to the mapped soil type are:</p> <ul style="list-style-type: none"> <li>• Water Erosion: 10-30% of map unit has a high to extreme water erosion risk;</li> <li>• Wind Erosion: 3-10% of map unit has a high to extreme wind erosion risk;</li> <li>• Salinity: &lt;3% of map unit has a moderate to high salinity risk or is presently saline;</li> <li>• Subsurface Acidification: &gt;70% of map unit has a high subsurface acidification risk or is presently acid;</li> <li>• Subsurface compaction: &gt;70% of the map unit has a high subsurface compaction risk;</li> <li>• Flood risk: &lt;3% of the map unit has a moderate to high flood risk;</li> <li>• Water logging: &lt;3% of map unit has a moderate to very high waterlogging risk;</li> <li>• Phosphorus export: &gt;70% of map unit has a high to extreme phosphorus export risk;</li> </ul>
Waterbodies	The desktop assessment and aerial imagery indicated that the application area is as close as 15 meters to the Avon River.
Conservation areas	The application area is within the Avon Valley National Park.
Climate and landform	<p>The application area has a gentle slope towards the Avon River.</p> <p>The mean annual rainfall is estimated to be between 600 and 1000mm (BOM, 2020)</p>

## 2. Flora, fauna and ecosystem analysis

With consideration for the site characteristics set out above, relevant datasets (see Appendix E), conservation significant flora and fauna species, ecological communities are not likely to be impacted by the clearing.

## 3. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	% remaining	Current extent in all DBCA managed land (ha)	% current extent in all DBCA managed land (proportion of pre-European extent)
IBRA bioregion					
Jarrah Forest	4,506,660.25	2,399,838.15	53.25	1,673,614.25	37.14
Vegetation complex					
East Darling 4	1,054,279.89	284,102.41	26.95	67,764.67	6.43

## Appendix B – Assessment against the Clearing Principles

Assessment against the Clearing Principles	Variance level	Is further consideration required?
<b>Environmental value: biological values</b>		
<p><u>Principle (a):</u> “Native vegetation should not be cleared if it comprises a high level of biodiversity.”</p> <p><u>Assessment:</u> The proposed clearing area does not contain locally significant flora or fauna habitats, or a unique assemblage of plants. The proposed clearing is not likely to contain a high level of biodiversity.</p>	Not likely to be at	No
<p><u>Principle (b):</u> “Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna.”</p> <p><u>Assessment:</u> The proposed clearing area includes juvenile <i>Eucalyptus</i> trees which do not appear to contain hollows. The clearing of 14 trees is not likely to significantly reduce the amount of available foraging or roosting habitat for fauna within the local area.</p>	Not likely to be at	No
<p><u>Principle (c):</u> “Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</p> <p><u>Assessment:</u> The proposed clearing is for 14 trees only. The understory within the application area is mostly weeds and grasses. The proposed clearing area is unlikely to contain flora species listed under the BC Act.</p>	Not likely to be at	No
<p><u>Principle (d):</u> “Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.”</p> <p><u>Assessment:</u> The proposed clearing area is not within any mapped threatened ecological communities (TECs) and is not representative of any State listed TECs.</p>	Not likely to be at	No



Assessment against the Clearing Principles	Variance level	Is further consideration required?
<b>Environmental values: significant remnant vegetation and conservation areas</b>		
<p><u>Principle (e):</u> <i>“Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</i></p> <p><u>Assessment:</u> The extent of native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia. Vegetation in the proposed clearing area is not considered to be part of a significant ecological linkage.</p>	Not likely to be at variance	No.
<p><u>Principle (h):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</i></p> <p><u>Assessment:</u> The proposed clearing is within the Avon Valley National Park. The proposed clearing has the potential to increase weeds and dieback into neighbouring vegetation.</p>	May be at variance	Yes Refer to Section 3.2.2 above.
<b>Environmental values: land and water resources</b>		
<p><u>Principle (f):</u> <i>“Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</i></p> <p><u>Assessment:</u> Photographs provided by the applicant (Appendix D) indicate the vegetation within the application area consists of 14 individual trees of various Eucalypt species including <i>Eucalyptus patens</i>. <i>E. patens</i> is associated with drainage lines and is considered riparian vegetation. Whilst clearing riparian vegetation, the minimal clearing is not likely to impact on the environmental values of the Avon River.</p>	Is at variance	No
<p><u>Principle (g):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</i></p> <p><u>Assessment:</u> The mapped soil type is highly susceptible to subsurface acidification, subsurface compaction and phosphorous export risk and low risk to other categories of land degradation. Noting the extent of the proposed clearing and the amount and condition of vegetation remaining in the immediate area, the proposed clearing is not likely to have an appreciable impact on land degradation.</p>	Not likely to be at variance	No
<p><u>Principle (i):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</i></p> <p><u>Assessment:</u> The removal of 14 individual trees is not likely to have notable ground disturbance. The area between the proposed clearing and the watercourse consists of intact vegetation, the proposed clearing is not likely to cause deterioration in the quality of surface or underground water.</p>	Not likely to be at variance	No
<p><u>Principle (j):</u> <i>“Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</i></p> <p><u>Assessment:</u> The mapped soils and topographic contours in the surrounding area do not indicate the proposed clearing is likely to contribute to increased incidence or intensity of flooding.</p>	Not likely to be at variance	No

## Appendix C – Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

### Measuring Vegetation Condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very Good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely Degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

## Appendix D –Photographs of the vegetation



Photograph 1: Five trees on the left hand side of the road will be cleared (Arc Infrastructure Pty Ltd, 2020b). The locations of these trees is represented in Figure 2 above.





Photograph 2: Three samplings to be removed within this area. (Arc Infrastructure Pty Ltd, 2020b) The locations of these trees are represented in Figure 2 above.



Photograph 3: Six of the smaller trees (likely to be *Eucalyptus patens*) are to be cleared. The applicant will not fell the larger trees (Arc Infrastructure Pty Ltd, 2020b). The locations of these trees are represented in Figure 3 above.

## Appendix E – References and databases

### 1. GIS datasets

Publicly available GIS Databases used (sourced from [www.data.wa.gov.au](http://www.data.wa.gov.au)):

- Aboriginal Heritage Places (DPLH-001)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- IBRA Vegetation Statistics
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Regional Parks (DBCA-026)
- Soil and Landscape Mapping – Best Available

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

## 2. References

Arc Infrastructure Pty Ltd (2020) Application for a clearing permit CPS 9062/1. DWER Reference: A1944172

Arc Infrastructure Pty Ltd (2020b) Photographs of application area CPS 9062/1. DWER Reference: A1944195

Bureau of Meteorology (BOM) (2020) Climate classification maps. Available from:  
[http://www.bom.gov.au/jsp/ncc/climate\\_averages/climate-classifications/index.jsp?maptype=kpn#maps](http://www.bom.gov.au/jsp/ncc/climate_averages/climate-classifications/index.jsp?maptype=kpn#maps)

DPIRD (2017) NRInfo Digital Mapping. Accessed at <https://maps.agric.wa.gov.au/nrm-info/> Accessed October 2020.  
 Department of Primary Industries and Regional Development, Government of Western Australia

Government of Western Australia (2019) 2018 South West Vegetation Complex Statistics. Current as of March 2019. WA  
 Department of Biodiversity, Conservation and Attractions, Perth, <https://catalogue.data.wa.gov.au/dataset/dbca>

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower  
 Society of WA (Inc). Nedlands, Western Australia.

Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps  
 and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation  
 and Land Management and Environment Australia.