Government of Western Australia
Department of Water and Environmental Regulation

Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10539/1
Permit type:	Area permit
Applicant name:	Shire of York
Application received:	1 March 2024
Application area:	Two native trees
Purpose of clearing:	Road widening
Method of clearing:	Mechanical clearing
Property:	Spencers Brook-York Road reserve (PIN 11339611), York
Location (LGA area/s):	Shire of York
Localities (suburb/s):	York

1.2. Description of clearing activities

The vegetation proposed to be cleared by the Shire of York (the Shire) comprises of two *Eucalyptus loxophleba* (York gum) trees located within a road reserve of a regional connector road (see Figure 1, Section 1.5). The Shire have advised that the clearing is to the minimum extent necessary to conduct road widening and improve road safety (Shire of York, 2024a).

1.3. Decision on application

Decision:	Granted
Decision date:	28 June 2024
Decision area:	Two native trees, as depicted in Section 1.5, below.

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the *Environmental Protection Act 1986* (EP Act). The Department of Water and Environmental Regulation (DWER) advertised the application for 14 days and no submissions were received.

In making this decision, the Delegated Officer had regard for the site characteristics (see Appendix B), relevant datasets (see Appendix G.1), the clearing principles set out in Schedule 5 of the EP Act (see Appendix C), relevant planning instruments and any other matters considered relevant to the assessment (see Section 3). The Delegated Officer also took into consideration that the purpose of the clearing is to improve the safety of this regional connector road. The road widening work is being funded through the National Black Spot funding program, with the works including the widening of the road seal, reconstruction of shoulders and activity to improve safety at two intersections.

The assessment identified that the proposed clearing will result in:

- the loss of two native trees that are considered significant remnant native vegetation in an extensively cleared area; and

- the loss of two native trees that provides suitable foraging habitat for *Zanda latirostris* (Carnaby's cockatoos), given the close proximity to water sources and known foraging habitat.

After consideration of the available information, as well as the applicant's avoidance and mitigation measures (see Section 3.1), the Delegated Officer determined that the proposed clearing will not result in an unacceptable risk to identified environmental values, subject to required conditions. The applicant has suitably demonstrated avoidance and minimisation measures, and has proposed to undertake tree planting, which sufficiently counterbalances the loss of the *Eucalyptus loxophleba* (York gum) trees proposed for clearing (see Section 4).

The Delegated Officer decided to grant a clearing permit subject to conditions to require:

- avoid and minimise to reduce the impacts and extent of clearing;
- the undertaking of management measures to minimise the risk of the introduction and spread of weeds and dieback into adjacent native vegetation; and
- the planting of nine trees that are suitable for black cockatoo foraging, consisting of *Eucalyptus loxophleba* (York gum), to balance the significant residual impact from the loss of two native trees suitable for black cockatoo foraging habitat in an extensively cleared landscape.

1.5. Site map

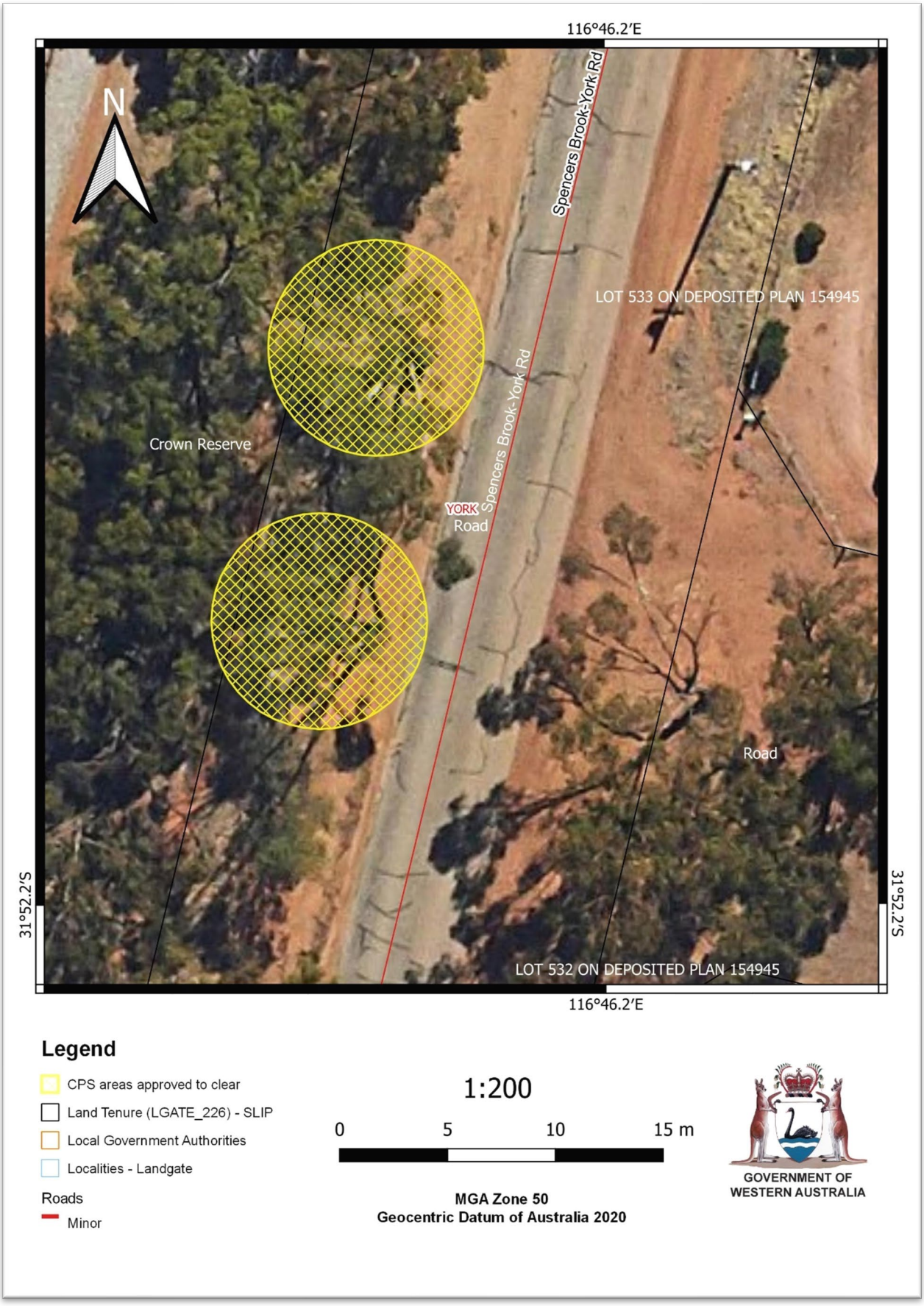

Figure 1: Map of the application area. The area cross-hatched yellow indicates the area authorised to be cleared under the granted clearing permit.

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 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the polluter pays principle
- 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)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)

Relevant policies considered during the assessment include:

- *Environmental Offsets Policy* (2011)

The key guidance documents which inform this assessment are:

- *A guide to the assessment of applications to clear native vegetation* (DER, December 2013)
- *Procedure: Native vegetation clearing permits* (DWER, October 2019)
- *Environmental Offsets Guidelines* (August 2014)

3 Detailed assessment of application

3.1. Avoidance, minimisation and mitigation measures

The Shire submitted evidence of avoidance, minimisation and mitigation measures taken prior to submitting a clearing application.

Avoidance and minimisation

- The road improvement project covers a length of road of approximately 900 metres (Appendix E: Figure 7). Spencers Brook Road is a regional connector road. The road has been selected for this improvement project due to road safety concerns. The road widening works are being funded through the National Black Spot funding program (Shire of York, 2024a).
- The extent of the clearing has been reduced from the original concept plan of requiring the clearing of approximately ten trees, to the current two native trees.
- The original road design was to widen the seal to 7.2 metres and the shoulders to one metre either side. To preserve the existing trees the scope of works has been reduced to a seven metre seal and 0.5 metre shoulders on either side. The two remaining trees that cannot be avoided, are considered to be too close to the finished road pavement and will constitute a safety hazard (Shire of York, 2024a).
- The remnant roadside vegetation is dominated by individual remnant *Eucalyptus loxophleba* (York gum) and *Acacia acuminata* (jam) with a weedy understory. The road reserve on the west side, where the clearing is proposed to occur, is adjacent to the rail reserve so the area is wide, but the remaining vegetation is generally in degraded condition. The east side comprises of residential lots and further to the east is the Avon River foreshore area and Avon River (Shire of York, 2024a). The Shire are planning on widening both sides of the road slightly, ensuring the road centreline remains straight and intact (Shire of York, 2024d).
- Although the land immediately to the east of the area proposed to be cleared appears already clear of native vegetation, it would cause safety issues if the Shire to widen one side and then the other to avoid the proposed clearing. Constructing the road to one side to avoid the clearing would also introduce curves into the road that become problematic and an added safety concern. In addition, as the Shire are not reconstructing the entire current road, they need the centre line to remain where it is currently located, otherwise the road geometry will be altered which will cause further safety issues (Shire of York, 2024d).

Mitigation

The Shire have proposed to undertake revegetation of *Eucalyptus loxophleba* (York gum) trees in an adjacent crown reserve, to offset the loss of the roadside vegetation (Shire of York, 2024a).

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

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix B) and the extent to which the impacts of the proposed clearing present a risk to biological, conservation, or land and water resource values.

The assessment against the clearing principles (see Appendix C) identified that the impacts of the proposed clearing present a risk to biological values (fauna) and significant remnant vegetation. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Biological values (fauna) - Clearing Principle (b)

Assessment

Within the local area (10 kilometre radius of the application area), nine conservation significant fauna species have been recorded. As the clearing application is for the removal of tree habitat, it is only likely for the proposed clearing to impact the arboreal species recorded in the local area, which are the black cockatoos. The tree species proposed to be cleared includes two *Eucalyptus loxophleba (York gum)* trees which provide foraging habitat for *Zanda latirostris* (Carnaby's cockatoo), which are listed as Endangered under the BC Act and the Commonwealth EPBC Act (DAWE, 2022). The application area is also mapped within the area of Carnaby's cockatoo breeding distribution.

The two trees proposed to be cleared are both *Eucalyptus loxophleba* (York gum) trees and are remnant individuals located on the west side of the road. Both are multi stemmed trees with a broad canopy. One has a significant dead stump with indications the remaining tree is a regrowth from that stump. Neither tree has a DBH much greater than 300 millimetres and are not considered significant habitat trees according to the Shire (Shire of York, 2024a).

Black Cockatoos

According to available mapping, the application area is located within the known breeding area for Carnaby's cockatoos, and adjacent to the known distribution for *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo). There are ten records of Carnaby's cockatoos, six records of *Zanda sp.* 'white-tailed black cockatoo' (white-tailed black cockatoo) and one record of *Zanda baudinii* (Baudin's cockatoo) within the local area (10 kilomentre radius of the application area). It must be noted that *Zanda sp.* (white-tailed black cockatoo) are records that were obtained when the data collector could not definitively distinguish if they spotted a Carnaby's or Baudin's black cockatoo, therefore the white-tailed black cockatoo category was created to incorporate these records.

While habitat requirements for these three species of black cockatoos differ, the requirements in general can be categorised as breeding habitat, foraging habitat and night roosting habitat.

Breeding habitat

Suitable breeding habitat for black cockatoos includes trees which either have a suitable nest hollow or are of a suitable diameter at breast height (DBH) to develop a nest hollow (DAWE, 2022). The application area is located within an area with mapped breeding distribution for Carnaby's cockatoo. This species generally occurs in woodland or forest, but also breeds in partially cleared woodland or forest, including isolated trees. They nest in hollows in live or dead trees, particularly *Eucalyptus salmonophloia* (salmon gum), *Eucalyptus wandoo* (wandoo), *Eucalyptus gomphocephala* (tuart), *Eucalyptus marginata* (jarrah), *Eucalyptus rudis* (flooded gum), *Eucalyptus loxophleba* subsp. *loxophleba* (York gum), *Eucalyptus accedens* (powderbark), *Eucalyptus diversicolor* (karri) and *Corymbia calophylla* (marri). Habitat trees considered potentially suitable for Black Cockatoo breeding have a DBH greater than 500 millimetres (for salmon gum and wandoo, suitable DBH is 300 millimetres) (DAWE, 2022).

Given neither of the tree proposed to be cleared have a diameter at breast height (DBH) much greater than 300 millimetres, and do not contain any hollows, they are not considered significant breeding habitat for black cockatoos (Shire of York, 2024e).

Foraging habitat

Carnaby's cockatoos forage on the seeds, nuts, and flowers of a variety of plants, including Proteaceous species (*Banksia* species., *Hakea* spp., and *Grevillea* spp.), as well as *Allocasuarina* and *Eucalyptus* species, marri, and a range of introduced species (Valentine and Stock, 2008: DAWE, 2022).

The application area in not within the mapped area for distribution of foraging for any black cockatoo species, however, as it is within the area mapped for breeding distribution for Carnaby's cockatoo it is likely that the species will opportunistically forage on the York gum.

As the area proposed to be cleared consists of one species of native tree (*Eucalyptus loxophleba* (York gum)) with no understorey, according to 2022 Referral Guidelines for all three species of black cockatoos, it is unlikely that Baudin's or forest red-tailed black cockatoos will utilise these trees for breeding, foraging or roosting (DAWE, 2022). However, according to available research, Carnaby's black cockatoos utilise *Eucalyptus loxophleba* (York gum) trees as a secondary foraging resource (Johnstone et al., 2010; Groom, 2011; DSEWPaC, 2012; DoEE, 2017).

While breeding or roosting, black cockatoos generally forage within a six kilometre to 12-kilometre radius of their nesting or roosting site (DAWE, 2022). According to available datasets, the application area is mapped within 10 kilometres of known roosting site (closest mapped approximately 123 metres from the application area). Noting the application area contains York gum, the application area is likely to provide significant foraging habitat for black cockatoo species, by supporting a roosting population.

Roosting habitat

Black cockatoo night roosts are usually located in the tallest trees of an area, and in close proximity to both a food and surface water supply (DAWE, 2022). Known night roosting trees include jarrah, marri, karri, flooded gum, blackbutt, tuart, salmon gum, wandoo and introduced eucalyptus (DAWE, 2022). Photographs of the *Eucalyptus loxophleba* (York gum) trees proposed to be cleared, in addition to information provided by the Shire, indicate that the trees proposed to be cleared are not likely to be of a size or show evidence of use as a roosting tree (Shire of York, 2024a: 2024e). Therefore, the trees do not provide suitable black cockatoo roosting habitat (Appendix F: Figure 2 and 3).

Offset

Noting that the tree proposed for clearing may provide foraging habitat for black cockatoos (within close proximity to additional foraging habitat, a roost site and a significant water source), within a highly cleared landscape subject to cumulative clearing pressures, the Delegated Officer considers that this impact needs to be appropriately mitigated and/or offset through revegetation.

The applicant has identified an area adjacent to the application area which will be revegetated with nine *Eucalyptus loxophleba* (York gum) trees to directly offset the proposed clearing (Shire of York, 2024a). Based on the Western Australian Environmental Offset Metric, planting nine *Eucalyptus loxophleba* (York gum) trees adequately counterbalances the significant residual impact of the clearing (See Appendix E).

Conclusion

Based on the above assessment, the proposed clearing will result in the loss of two *Eucalyptus loxophleba* (York gum) trees which hold significant foraging habitat value within an extensively cleared landscape. Given the applicants avoidance, minimisation and mitigation measures the Delegated officer has determined that the potential impacts of the proposed clearing can be addressed by the planting of nine *Eucalyptus loxophleba* (York gum) trees.

Conditions

The following actions will be required as conditions of the clearing permit:

- planting nine *Eucalyptus loxophleba* (York gum) trees in an adjacent crown reserve and ensuring the survival of these trees.
- weed and dieback management measures.

3.2.2. Significant remnant vegetation - Clearing Principle (e)

Assessment

The proposed clearing is located within the Avon Wheatbelt Interim Biogeographic Regionalisation for Australia (IBRA) region of Western Australia. This IBRA region has approximately 18.51 per cent of its original extent of native vegetation remaining. The vegetation association mapped over the application area is York (352), described as medium York gum woodland, which retains approximately 17.27 per cent of its pre-European extent within the Avon Wheatbelt IBRA region and 19.61 per cent statewide (Government of Western Australia, 2019a).

The national objectives and targets for biodiversity conservation in Australia, has a target to prevent the clearance of ecological communities with an extent below 30 per cent of that present before 1750. Clearing below this 30 per cent threshold appears to exponentially accelerate species loss at an ecosystem level (Commonwealth of Australia, 2001).

Within the local area (10-kilometre radius around the application area), approximately 11.22 per cent of the original native vegetation extent remains, which is well below the abovementioned 30 per cent retention threshold. Therefore, the application area is within an extensively cleared landscape. Noting the value of the tree proposed for clearing as foraging habitat for Carnaby's black cockatoo, it is considered as a significant remnant of native vegetation within an extensively cleared area, particularly in the context of cumulative clearing impacts to black cockatoo habitat within the local area.

Based on the Western Australian Environmental Offset Metric, the proposal to plant nine *Eucalyptus loxophleba* (York gum) trees exceeds the minimum requirement to address the significant residual impact in this instance (See Appendix E).

DWER notes that the Shire have proposed to undertake revegetation of *Eucalyptus loxophleba* (York gum) trees in an adjacent crown reserve, to offset the loss of the roadside vegetation (Shire of York, 2024a).

Conclusion

It is considered that the impacts of the proposed clearing on significant vegetation within an extensively cleared area can be adequately addressed through the proposed tree planting actions in the adjacent reserve.

Conditions

The following actions will be required as conditions of the clearing permit:

- planting nine *Eucalyptus loxophleba* (York gum) trees in an adjacent crown reserve and ensuring the survival of these trees.
- weed and dieback management measures.

3.3. Relevant planning instruments and other matters

The application area is located within the boundary of the registered Native Title (Indigenous Land Use Agreement) (National) Ballardong People Indigenous Land Use Agreement WI2017/012.

There are several Aboriginal Sites of Significance mapped within 10 kilometres of the application area, the closest being Marley Pool (ACH-00029397) – Birthplace; Camp; Ritual / Ceremonial; Historical; Hunting Place; Meeting Place; Landscape / Seascape Feature; Water Source, which is approximately 27 metres south-east of the area proposed to be cleared. 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.

End

Appendix A. Additional information provided by applicant

Summary of comments	Consideration of comment
Realignment of the application area to align with the trees proposed to be cleared (Shire of York, 2024b) (DWER Ref: DWERDT965166).	Assessment was consider based on the amended application area (see Figure 1).

Appendix B. 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 C.

B.1. Site characteristics

Characteristic	Details
Local context	The proposed clearing comprises two *Eucalyptus loxophleba* (York gum) trees located on the edge of a regional connector road within the York townsite. The application area is adjacent to the Avon River and is located within the intensive land use zone of Western Australia. Aerial imagery indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 11.22 per cent of the original native vegetation cover.
Ecological linkage	The linear vegetation within the road reserve, and that growing along the Avon River, both provide local linkages within a highly cleared landscape. However the clearing of the two trees is not likely to sever this linkage. Spencer Brook-York Rd was surveyed in April 1988, as a part of the Roadside Conservation (DBCA-030) and no weeds were identified on either side of the road.
Conservation areas	Within the local area (10-kilometre radius from the centre of the area proposed to be cleared) there are no conservation areas.
Vegetation description	Photographs supplied by the applicant indicate the vegetation within the application area consists of two *Eucalyptus loxophleba* (York gum). Representative photos are available in Appendix F. This mapped beard vegetation association over the application area is: • York 352, which is described as Wheatbelt; *Eucalyptus loxophleba* (York gum), *E. salmonophloia* (salmon gum). York 352 vegetation association retains approximately 19.61 per cent of its original vegetation extent within the Avon Wheatbelt IBRA region and 17.27 per cent statewide.
Vegetation condition	Photographs supplied by the applicant indicate the vegetation within the proposed clearing area is in Degraded (Keighery, 1994) condition. The full Keighery (1994) condition rating scale is provided in Appendix D. Representative photos are available in Appendix F.
Climate and landform	York is in the temperate climate zone consisting of mediterranean conditions of dry and hot summers with cool and wet winters. The area receives an average of 412.3 millimetres of rain annually.
Soil description	Soil landscape mapping (DPIRD, 2019) indicates that the following soil landscape type occurs within the application area: • 256AF – Avon flats subsystem: Alluvial terraces and floodplains that occur adjacent to the Avon, lower Mortlock and lower Dale rivers.

Characteristic	Details
Land degradation risk	The application area is mapped as having a high risk of waterlogging, subsurface acidification, phosphorus export and flood risk. The land degradation table can be found in Appendix A.3., outlining the land degradation risk levels for the 256AF Avon flats subsystem (DPIRD, 2019).
Waterbodies	The desktop assessment and aerial imagery indicate that no water bodies intersect the application area, however, the Avon River is located approximately 250 metres east and a tributary of the Avon River located approximately 100 metres south of the application area.
Hydrogeography	The groundwater salinity of the application area is mapped at >35000 TDS mg/L. The application area is mapped within the Avon River Catchment Area and within the Avon River Catchment Area Surface Water Area (UFI 29) proclaimed under RIWI Act.
Flora	Twenty-one conservation listed flora species have been recorded within the local area. Of which four species are listed as threatened, one is listed as priority 1, one is priority 2, 10 are listed as priority 3 and five are listed as priority 4. The nearest conservation significant flora record is mapped 1.8 kilometres from the application area. Given this application is for the clearing of two native trees and no understorey, in addition to the area comprising primarily of trees over weeds (Shire of York, 2024a), it is unlikely that any conservation flora occurs within the application area or will be impacted by the proposed clearing.
Ecological communities	The closest threatened ecological community to the application area is the Eucalypt woodlands of the Western Australia Wheatbelt community which is listed as critically endangered under the EPBC Act and Priority 3 by the Department of Biodiversity, Conservation and Attractions. This ecological community is located directly adjacent to the application area, however, the application area does not represent this ecologically community based on the condition thresholds outlined in the approved conservation advice for this TEC (DoE, 2015).
Fauna	Nine conservation significant fauna are recorded within the local area with the closest record being *Zanda latirostris* (Carnaby's cockatoo) which has been recorded 0.65 kilometres from the application area. The nine records comprise of three species listed as Endangered (EN), two listed as Vulnerable (VU), one Other Specially Protected Species, two Priority 3 species and one Priority 4 species. Noting the habitat proposed to be cleared as well as the habitat preferences of the fauna recorded within the local area, the only species likely to utilise the area are the Carnaby's cockatoo as a secondary foraging habitat.

B.2. Vegetation extent

	Pre-European extent (ha)	Current extent (ha)	Extent remaining (%)	Current extent in all DBCA managed land (ha)	Current proportion (%) of pre-European extent in all DBCA managed land
IBRA bioregion*					
Avon Wheatbelt	9,517,109.95	1,761,187.42	18.51	174,980.68	1.84
Avon Wheatbelt – *York 352*	630,577.61	108,887.52	17.27	10,191.45	1.62
Beard Vegetation Association*					
York 352	724,268.73	142,012.22	19.61	12,672.52	1.75
Local area					
10km radius	31,524.58	3,537.94	11.22	-	-

*Government of Western Australia (2019a)

B.3. Land degradation risk table

Risk categories	256AfAV - Avon Flats System
Wind erosion	M1: 10-30% of map unit has a high to extreme wind erosion risk
Water erosion	L2: 3-10% of map unit has a high to extreme water erosion risk
Water logging	H2: >70% of map unit has a moderate to very high waterlogging risk
Water Repellence	L2: 3-10% of map unit has a high water repellence risk
Sub-surface Acidification	H2: >70% of map unit has a high subsurface acidification risk or is presently acid
Phosphorous Export	H2: >70% of map unit has a high to extreme phosphorus export risk
Salinity	M1: 10-30% of map unit has a moderate to high salinity risk or is presently saline
Flooding	H2: >70% of the map unit has a moderate to high flood risk
Subsurface Compaction	M1: 10-30% of the map unit has a high subsurface compaction risk

Appendix C. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): *"Native vegetation should not be cleared if it comprises a high level of biodiversity."* Assessment: The area proposed to be cleared is not likely to contain local or regionally significant flora or assemblages of plants.	Not likely to be at variance	No
Principle (b): *"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."* Assessment: The application area contains two trees, *Eucalyptus loxophleba* (York gum), which provides secondary foraging habitat for black cockatoos.	At variance	Yes *Refer to Section 3.2.1, above.*
Principle (c): *"Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."* Assessment: The proposed clearing is for two native trees, *Eucalyptus loxophleba* (York gum), which is not listed as a threatened species. No understorey is proposed to be cleared and the application area is primarily trees over weeds, therefore, no threatened flora is likely to be impacted by the proposed clearing.	Not likely to be at variance	No
Principle (d): *"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."* Assessment: The trees proposed to be cleared are located directly adjacent to a mapped TEC - Eucalypt woodlands of the Western Australia Wheatbelt community which is listed as Critically Endangered under the EPBC Act. Based on photographs of the application area (Shire of York, 2024a) it is unlikely that the trees proposed for clearing forms part of this TEC, given it is unlikely to meet the patch size and condition thresholds outlined in the approved conservation advice for this TEC. The applicant will be required to undertake weed and dieback management measures to minimise the risk of spread into adjacent vegetated areas.	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
Principle (e): *"Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."* Assessment: The local area contains less than the 30 per cent remnant vegetation and is therefore inconsistent with the national objectives and targets for biodiversity conservation in Australia (Commonwealth of Australia, 2001). The application area is considered a significant remnant within an extensively cleared area due to containing foraging habitat for black cockatoos.	At variance	Yes *Refer to Section 3.2.2, above.*

Assessment against the clearing principles	Variance level	Is further consideration required?
Principle (h): *"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."* Assessment: Given there are no conservation areas mapped within the local area, the proposed clearing is not likely to have an impact on the environmental values of conservation areas within the local area.	Not at variance	No
Environmental value: land and water resources		
Principle (f): *"Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."* Assessment: Given no water courses or wetlands are recorded within the application area, and the nearest minor river (nonperennial tributary of the Avon River) is approximately 100 metres north of the application area, the proposed clearing is unlikely] to impact on- or off-site hydrology and water quality.	Not likely to be at variance	No
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The proposed clearing of two trees within the road reserve, within close vicinity of the existing road surface, is not likely to cause appreciable land degradation.	Not likely to be at variance	No
Principle (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."* Assessment: While the channel of the Avon River is located approximately 190 metres from the proposed clearing, the proposed clearing of two trees is unlikely to impact on surface and groundwater quality. Groundwater salinity is mapped at greater than 3500 TDS mg/L in the application area, however, the removal of two individual trees is unlikely to increase groundwater salinity levels.	Not likely to be at variance	No
Principle (j): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."* Assessment: The clearing of two trees is unlikely to contribute to or exacerbate the incidences or intensity of flooding.	Not likely to be at variance	No

Appendix D. 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.

Considering its location, the scale below was used to measure the condition of the vegetation proposed to be cleared. This scale has been extracted from Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

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 E. Offset calculator value justification

Through the detailed assessment outlined in Section 3.2 above, the Delegated Officer has determined that the following significant residual impacts remain after the application of the avoidance and minimisation measures summarised in Section 3.1:

- the loss of two native trees that are considered significant remnant native vegetation in an extensively cleared area; and
- the loss of two native trees that provides suitable foraging habitat for *Zanda latirostris* (Carnaby's cockatoos), given the close proximity to water sources and known foraging habitat.

To balance these significant residual impacts, the following environmental offsets have been conditioned on the clearing permit:

- the planting of nine trees suitable for black cockatoo foraging, consisting of *Eucalyptus loxophleba* (York gum), to balance the significant residual impact from the loss of two native trees suitable for black cockatoo foraging habitat.

The revegetation offset location is approximately 165 metres east of the application area, within Crown Reserve R19039, which is a part of the Avon River foreshore and vested for management with the Shire of York. The condition of the proposed location is currently Degraded, comprising of scattered York gums, minimal understorey and a high weed load.

Although the current purpose for the land is 'common', the Shire have informed DWER that they manage the foreshore for conservation due to the area being within the Avon River foreshore area. The Shire have advised that due to the variety of uses along this stretch of reserve, there is not an ability to place the area under conservation due to competing land uses. The proposed offset is considered to provide good environmental outcomes, compared to the alternative of a road reserve revegetation offset, that it would fill a gap in a remnant of native vegetation and increase the vegetation within the foreshore of the Avon River. Given this, the risk of loss is considered acceptable in this instance.

The Delegated Officer considers that this adequately counterbalances the significant residual impacts listed above. The justification for the values used in the offset calculation is provided below.

Offset calculation and justification for significant residual impact to black cockatoos

Calculation	Score (Area)	Rationale
Conservation significance		
Description	Black cockatoo foraging habitat	The proposed clearing of suitable foraging habitat for *Zanda latirostris* (Carnaby's black cockatoos) within an extensively cleared landscape.
Type of environmental value	Species (flora/fauna)	Suitable habitat for Carnaby's black cockatoos.
Conservation significance of environmental value	Rare/threatened species – endangered	Carnaby's black cockatoo are listed as Endangered under the BC Act (state) and EPBC Act (federal)
Landscape level value impacted	Yes/No	No
Significant impact		
Description	Loss of foraging habitat for Carnaby's black cockatoo	Proposed clearing of native vegetation considered suitable foraging habitat for Carnaby's black cockatoo within an extensively cleared landscape.
Significant impact (hectares)	0.02	Two native trees *Eucalyptus loxophleba* (York gums) equating to 0.02 hectares
Quality (scale)	5	York gums are a secondary foraging species for Carnaby's black cockatoos. The application area is within 1.2km kilometres of a roost site and occurs within approximately 250m from a watercourse which may provide a seasonal watering source for black cockatoos. The closest confirmed breeding site is approximately 31 kilometres away. The application area is within an extensively impacted part of the species range. Given the habitat attributes and site context of the application area, the vegetation under application is considered to provide moderate quality foraging habitat for black cockatoos.
Rehabilitation credit		
N/A	N/A	Onsite revegetation will not be taking place.
Offset		
Description	Revegetation and rehabilitation of black cockatoo foraging habitat	Revegetation with York gums that provide foraging habitat for Carnaby's black cockatoos, within an extensively cleared landscape.
Proposed offset (area in hectares)	0.09	The area required to counterbalance 100% of significant residual impact (SRI) of the proposed clearing.
Current quality of offset site	3	The area to be revegetated is in Degraded condition, compromising of minimal understorey with scattered York gums and a high weed load.

Calculation	Score (Area)	Rationale
Future quality WITHOUT offset	3	It is considered that the quality of the habitat within the revegetation site will not change without implementing revegetation measures.
Future quality WITH offset	5	The habitat quality within the revegetation site is considered to increase to good condition, increasing the quality as foraging habitat with on-ground management, provided it is undertaken by suitably qualified personnel with regular monitoring and management in accordance with set completion criteria.
Time until ecological benefit (years)	17	Average time until planted vegetation has matured enough to be used as foraging habitat by black cockatoos. An extra two years has been added to account for the delay in commencement of the revegetation (assumed to commence within two years of the permit start date).
Confidence in offset result (%)	80	Moderate to high level of confidence that the quality within the revegetation area will improve with best practice revegetation techniques and appropriate completion criteria.
Duration of offset implementation (maximum 20 years)	20	Maximum value to be used noting the vegetation is not to be cleared in the future.
Time until offset site secured (years)	0	The offset is proposed within land tenure currently managed by the Shire of York.
Risk of future loss WITHOUT offset (%)	10	There is a moderate to low risk of loss given the offset area is within a reserve zoned as 'common', however, managed by the Shire of York for the purpose of conservation.
Risk of future loss WITH offset (%)	10	The risk of loss is not considered to change with the proposed offset as the revegetation areas are within a reserve managed by the Shire of York and no further security mechanisms are proposed.

Offset calculation and justification for significant residual impact to extensively cleared landscape

Calculation	Score (Area)	Rationale
Conservation significance		
Description	Extensively cleared local area	The application is to clear significant native vegetation within an extensively cleared local area.
Type of environmental value	Vegetation/habitat	Extensively cleared local area (10 kilometres).
Conservation significance of environmental value	Terrestrial native vegetation complex - <30% extent remaining in the bioregion	The local area retains approximately 11.22 per cent of the original extent of native vegetation. The vegetation in the local area is significantly below the 30 per cent threshold.
Landscape level value impacted	Yes/No	No
Significant impact		
Description	Loss of vegetation within an extensively cleared landscape	Proposed clearing of two native trees (equal to 0.02 hectares of native vegetation) in an extensively cleared landscape.
Significant impact (hectares)	0.02	Applicant is proposing to clear two native trees (equal to 0.02 hectares of native vegetation).
Quality (scale)	5	The application area is in a degraded condition.
Rehabilitation credit		

Calculation	Score (Area)	Rationale
N/A	N/A	Onsite revegetation will not be taking place
Offset		
Description	Revegetation and rehabilitation	Revegetation with York gums within an extensively cleared landscape.
proposed offset (area in hectares)	0.07	The area required to counterbalance 100% of significant residual impact (SRI) of the proposed clearing.
Current quality of offset site	3	The area to be revegetated is in Degraded condition, compromising of minimal understorey with scattered York gums and a high weed load.
Future quality WITHOUT offset	3	It is considered that the quality of the habitat within the revegetation site will not change without implementing revegetation measures.
Future quality WITH offset	5	The habitat quality within the revegetation site is considered to increase to good condition, with on-ground management, provided it is undertaken by suitably qualified personnel with regular monitoring and management in accordance with set completion criteria.
Time until ecological benefit (years)	12	Average time until planted vegetation has matured. An extra two years has been added to account for the delay in commencement of the revegetation (assumed to commence within two years of the permit start date).
Confidence in offset result (%)	80	Moderate to high level of confidence that the quality within the revegetation area will improve with best practice revegetation techniques and appropriate completion criteria.
Duration of offset implementation (maximum 20 years)	20	Maximum value to be used noting the vegetation is not to be cleared in the future.
Time until offset site secured (years)	0	The offset is proposed within land tenure currently managed by the Shire of York.
Risk of future loss WITHOUT offset (%)	10	There is a moderate to low risk of loss given the offset area is within a reserve zoned as 'common', however, managed by the Shire of York for the purpose of conservation.
Risk of future loss WITH offset (%)	10	The risk of loss is not considered to change with the proposed offset as the revegetation areas are within a reserve managed by the Shire of York and no further security mechanisms are proposed.

Appendix F. Photographs of vegetation

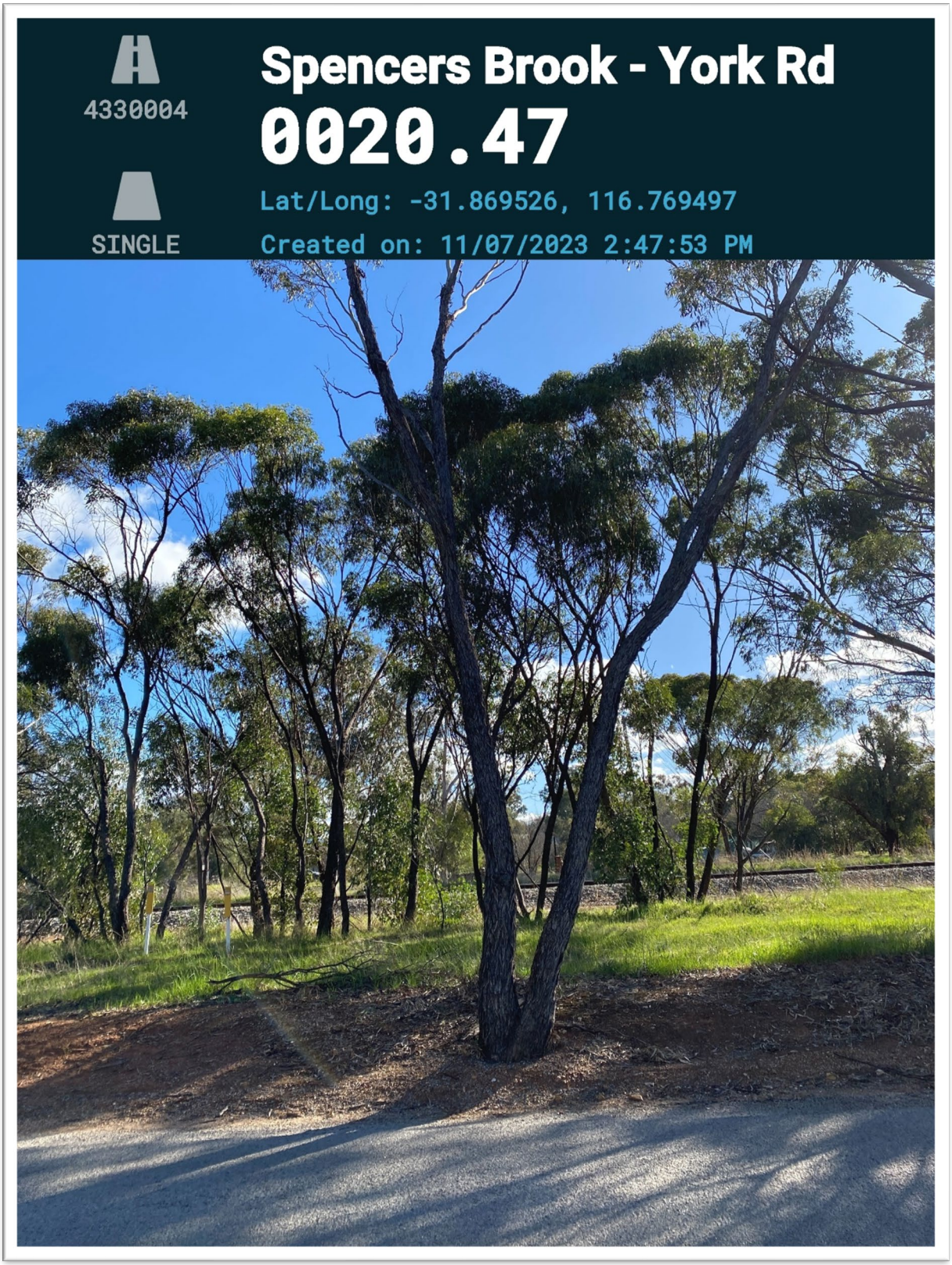

Figure 2: ***Eucalyptus loxophleba*** **(York gum) proposed to be cleared as a part of clearing application CPS 10539/1 (Shire of York, 2024a).**

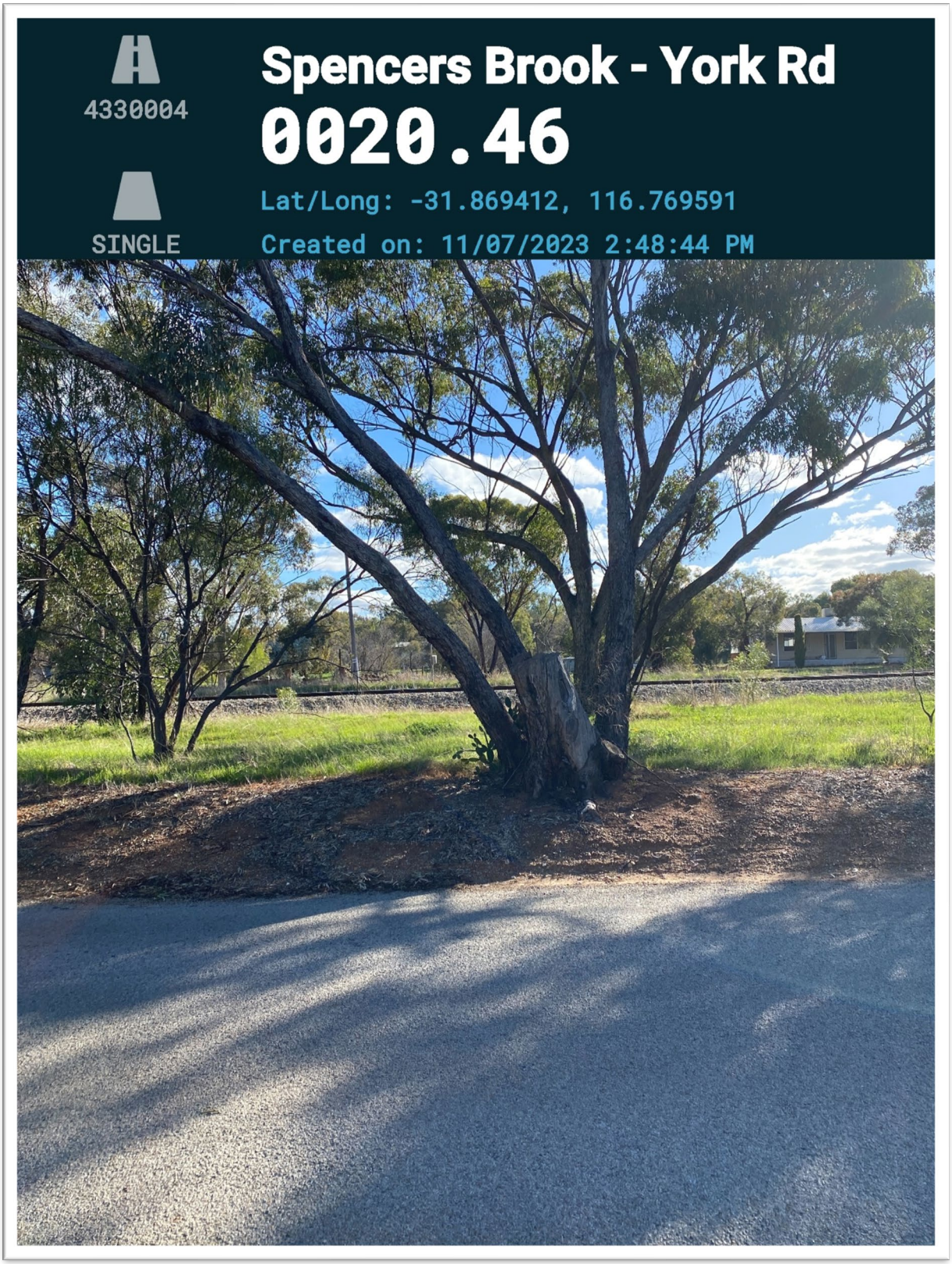

Figure 3: ***Eucalyptus loxophleba*** **(York gum) proposed to be cleared as a part of clearing application CPS 10539/1 (Shire of York, 2024a).**

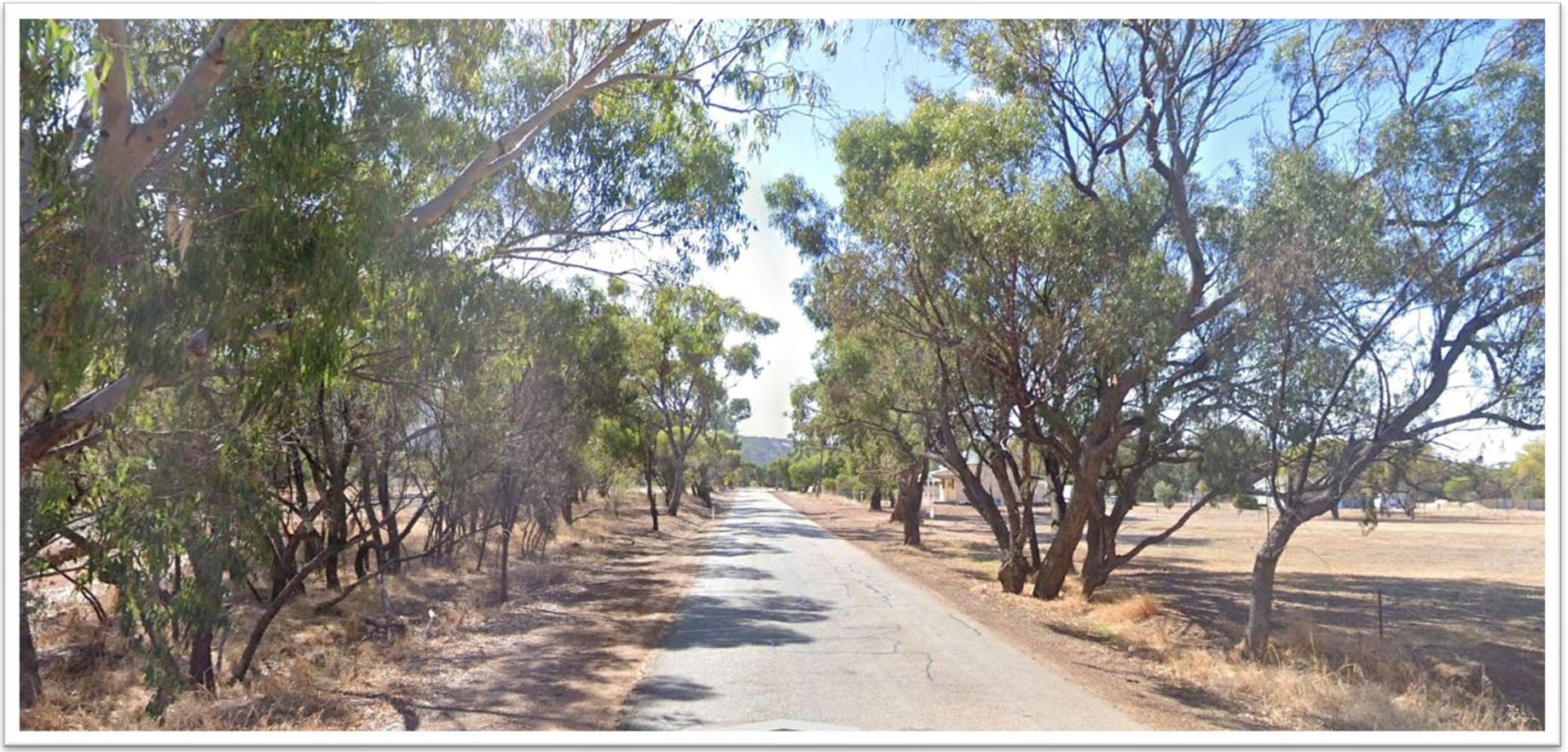

Figure 4: Street view of Spencers Brook-York Road reserve, York, where the two *Eucalyptus loxophleba* (York gums) proposed to be cleared as a part of clearing application CPS 10539/1, are located (Shire of York, 2024a).

Figure 5: Photograph of vegetation within revegetation offset site at Reserve 19039, York, as a part of clearing application CPS 10539/1 (Shire of York, 2024a).

Figure 6: Photograph of vegetation within revegetation offset site at Reserve 19039, York, as a part of clearing application CPS 10539/1 (Shire of York, 2024a).

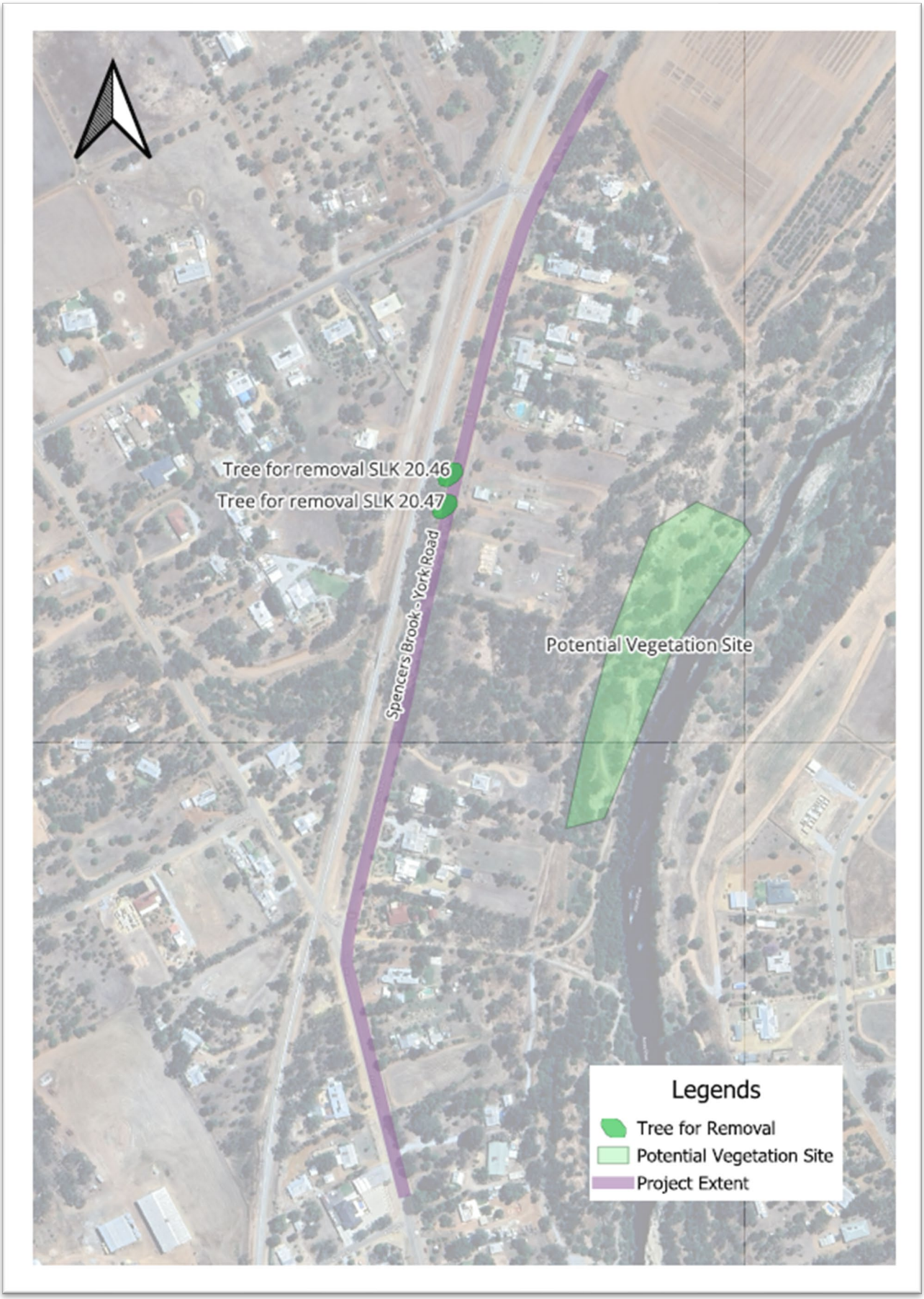

Figure 7: Aerial photograph showing extent of road improvement project, necessitating the need for the proposed clearing as a part of clearing application CPS 10539/1 (Shire of York, 2024a).

Appendix G. Sources of information

G.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- 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)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)
- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

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)

G.2. References

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Shire of York (2024b) *Additional information – CPS 10529/1,* received 15 March 2024 (DWER Ref: DWERDT919554).

Shire of York (2024c) *CPS 10539-1 - confirmation of trees proposed to be cleared,* received 30 May 2024 (DWER Ref: DWERDT965166).

Shire of York (2024d) *CPS 10539-1- further information on avoidance and mitigation,* received 25 June 2024 (DWER Ref: DWERDT968233).

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