

Clearing Desktop Report – Short Form



1. PROJECT DETAILS

Project Name:	Northam Pithara Road (M032) Bridge Replacements		
Region/Directorate:	Wheatbelt		
Expected Project Start Date:	1051 - April 2023, 0762, 0765 – October 2023		
Road/Bridge Name and No:	Northam Pithara Road (M032)		
Project Location (SLK):	<ul style="list-style-type: none">• Bridge 0762: M032 – SLK 24.11• Bridge 0765: M032 – SLK 45.64• Bridge 1051: M032 – SLK 56.57		
TRIM Document No:	D21#1043373		
TRIM Link to Spatial Data:	<ul style="list-style-type: none">• Bridge 0762: M032 – D21#969208• Bridge 0765: M032 – D21#969238 and D23#806292#• Bridge 1051: M032 – D21#969255		
EOS No:	2531		
Project No:	30000008	Task Code:	19301

2. PURPOSE OF CLEARING

At Bridge 765, due to a change in sidetrack design from a single to a dual lane, there is a need widen the Proposal footprint to the west of the existing bridge. To offset the original clearing area, the area to the east of the bridge has been reduced. Changes to the assessment document are provided in red. No changes to environmental impact are expected.

Replace over 80 year-old timber bridges 0762, 0765 and 1051 with Culverts, because the bridges have reached the end of their design life.

3. ALTERNATIVES TO CLEARING

Not applicable – bridges need replacing as they are at the end of their design life.

4. MEASURES TO AVOID, MINIMISE, MITIGATE AND MANAGE PROJECT CLEARING IMPACTS

The disturbance footprint for the bridge replacements (including side access tracks) have been minimised where possible, based on existing environmental values within or in proximity to the bridge replacement works.

5. APPROVED POLICES AND PLANNING INSTRUMENTS

The clearing of native vegetation in Western Australia is regulated under the *Environmental Protection Act* (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), Main Roads has also had regard to the following documents.

Environmental Protection Policies

- Environmental Protection (Peel Inlet - Harvey Estuary) Policy 1992
- Environmental Protection (Western Swamp Tortoise Habitat) Policy 2011

Other Legislation of relevance for assessment of clearing and planning/other matters

- *Biodiversity Conservation Act 2016* (WA) (BC Act)
- *Conservation and Land Management Act 1984* (WA) (CALM Act)
- *Country Areas Water Supply Act 1947* (WA) (CAWS Act)
- *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- *Planning and Development Act 2005* (WA) (P&D Act)
- *Soil and Land Conservation Act 1945* (WA)
- *Rights in Water and Irrigation Act 1914* (WA) (RIWI Act)
- *Aboriginal Heritage Act 1972* (WA) (AHA)

- *Town Planning and Development Act (WA)1928*

Relevant other policies and guidance documents:

- Environmental Offsets Policy (Government of Western Australia, 2011)
- A guide to the assessment of applications to clear native vegetation (DEC, December 2014)
- Procedure: Native vegetation clearing permits (DWER, October 2019)
- Environmental Offsets Guidelines (Government of Western Australia, August 2014)
- Technical guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016)
- Technical guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA, 2020)
- Approved conservation advice under section 266B of the EPBC Act for threatened flora/fauna/vegetation communities
- Approved Recovery Plans for threatened species
- EPBC Act Referral guidelines for the three threatened black cockatoo species
- Strategic advice - EPA

6. CLEARING AREA

Clearing Area (ha)	0.881 ha (All bridges) (was 0.9 ha) Bridge 0762 - 0.61 ha Bridge 0765 – 0.111 ha (was 0.13 ha) Bridge 1051 - 0.16 ha	No. Trees Cleared:	Two Suitable DBH Trees (one at Bridge 0762 and one at Bridge 0765). Neither of these trees contain hollows of suitable size for Black Cockatoo nesting.
Species Name	<i>E. loxophleba</i> ssp. <i>loxophleba</i> (Bridge 0762) <i>Eucalyptus loxophleba</i> (Bridge 0765)		
Easting and Northing / Shapefile	Bridge 0762 <i>E. loxophleba</i> ssp. <i>loxophleba</i> (-31.467817; 116.774317) Bridge 0765 <i>E. loxophleba</i> (-31.295485; 116.83042) CPS 818/15 Disturbance Areas Bridge 0762: M032 – D21#969208 Bridge 0765: M032 – D21#969238 and D23#806292 Bridge 1051: M032 – D21#969255		

7. EXISTING ENVIRONMENT AND SITE INFORMATION

Site Vegetation Description/Association	Bridge 0762 OW: <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> open woodland over <i>Tecticornia indica</i> subsp. <i>bidens</i> and <i>Tecticornia pergranulata</i> subsp. <i>pergranulata</i> low open shrubland over <i>Avena barbata</i> Bridge 0765 OW: <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> open woodland over <i>Acacia saligna</i> subsp. <i>lindleyi</i> tall open shrubland over <i>Maireana brevifolia</i> low open shrubland over <i>Avena barbata</i> open tussock grassland with <i>Trifolium arvense</i> var. <i>arvense</i> very open herbland. Bridge 1051 LOS: Low open shrubland of saline tolerant Samphire and introduced grass species, adjacent to shallow saline drainage within agricultural crops EI: Isolated <i>Eucalyptus loxophleba</i> subsp. <i>loxophleba</i> and ? <i>Casuarina obesa</i> over introduced pasture weeds
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<p>Site Vegetation Condition</p>	<p>Bridge 0762 Vegetation is in Completely Degraded condition</p> <p>Bridge 0765 Vegetation is in Completely Degraded and Degraded condition</p> <p>Bridge 1051 Vegetation is in Completely Degraded condition.</p>																	
<p>Pre-European Extent Remaining (%)</p>	<p>Pre-European Vegetation: Vegetation associations within the Proposal Areas for bridges 0762, 0765, and 1051 are summarised in the table below.</p> <table border="1"> <thead> <tr> <th rowspan="2">Levels</th> <th colspan="2">% Remaining</th> </tr> <tr> <th>Vegetation Association 988 (Bridge 0762)</th> <th>Vegetation Association 1049 (Bridge 0765 and 1051)</th> </tr> </thead> <tbody> <tr> <td>Statewide</td> <td>30.35</td> <td>6.79</td> </tr> <tr> <td>IBRA Bioregion Avon Wheatbelt</td> <td>29.21</td> <td>6.79</td> </tr> <tr> <td>IBRA Subregion Katanning</td> <td>32.14</td> <td>8.06</td> </tr> <tr> <td>Local Government Authority Shire of Goomalling</td> <td>61.65</td> <td>11.09</td> </tr> </tbody> </table>	Levels	% Remaining		Vegetation Association 988 (Bridge 0762)	Vegetation Association 1049 (Bridge 0765 and 1051)	Statewide	30.35	6.79	IBRA Bioregion Avon Wheatbelt	29.21	6.79	IBRA Subregion Katanning	32.14	8.06	Local Government Authority Shire of Goomalling	61.65	11.09
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8. ASSESSMENT OF PROJECT AGAINST CLEARING PRINCIPLES

Is Vegetation to be cleared at variance with:	Justification or Evidence:
<p>Principle (a) – Native vegetation should not be cleared if it comprises a high level of biological diversity.</p>	<p>A biological survey did not identify any Threatened or Priority flora species in the Proposal Areas for Bridges 0762, 0765 or 1051. The vegetation was assessed as being in 'Degraded' and 'Completely Degraded' across the three bridges. The surveys did not identify any vegetation considered representative of a Threatened Ecological Community (TEC) or Priority Ecological Community (PEC) within and in the immediate vicinity of the Proposal Areas.</p> <p>No significant fauna species were recorded as occurring in any of the Proposal Areas and with the exception of black cockatoos, none are considered likely or possible to occur. The biological survey identified possible foraging habitat for Carnaby's Cockatoo, but no potential breeding or nesting habitat. Two potential black cockatoo Suitable DBH Trees (with no suitable hollows to support breeding) are located within the Proposal Areas; however, no signs of foraging or breeding activity were recorded during the field survey and no trees considered suitable for roosting were identified.</p> <p>Two Suitable DBH Trees (with no suitable hollows) are proposed to be removed for the bridge replacements at Bridges 0762 and 0765. As vegetation in the Proposal Areas is Degraded to Completely Degraded, comprises no suitable roosting habitat and no known or suspected nesting trees are proposed to be removed, the proposed clearing of up to 0.881 ha (across all three bridges) under Main Roads state-wide clearing permit is not likely to be at variance to this Principle.</p>

<p>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 indigenous to Western Australia.</p>	<p>Astron (2016) and MRWA (2021) did not record any significant fauna species during field surveys in any of the Proposal Areas for Bridges 0762, 0765, 1051. Astron (2016) considered that the only fauna species that may occur was Carnaby's Cockatoo.</p> <p>The areas to be cleared are in a degraded to completely degraded condition and predominantly lack any native understorey. The clearing of up to 15 m from the existing road is unlikely to sever or disrupt any ecological linkages.</p> <p>Astron (2016) and MRWA (2021) reported that the vegetation comprised of isolated trees, in a Degraded to Completely Degraded condition which lacked signs of Black Cockatoo foraging or breeding. Further, biological surveys did not identify any trees considered suitable for roosting within the Proposal Areas. DBCA (2011) report that York Gum (the dominant vegetation association) has low to medium foraging value for Black Cockatoo. The removal of this habitat is unlikely to be a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.</p> <p>Two Suitable DBH Trees may be removed to accommodate the bridge replacement works at Bridges 0762 and 0765. None of these trees are known or suspected nesting/breeding trees for Carnaby's Cockatoo and do not contain any suitable hollows for breeding opportunities. The Proposal Areas at Bridge 0762 and 0765 are highly degraded.</p> <p>Based on the above, the proposed works are unlikely to be at variance to this Principle.</p>
<p>Principle (c) – Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.</p>	<p>No Threatened Flora were identified in any of the Proposal Areas for Bridges 0762, 0765 or 1051 and it is considered highly unlikely that any would occur (Main Roads, 2021).</p> <p>Based on the above, the proposed works are not at variance to this Principle.</p>
<p>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.</p>	<p>There are no mapped TECs or vegetation considered representative of a TEC in any of the Proposal Areas for Bridges 0762, 0765 and 1051.</p> <p>Based on the above, the proposed works are not at variance to this Principle.</p>
<p>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.</p>	<p>The Proposal Area for Bridge 0762 falls within Vegetation Association 988 (Tecticornia spp. with Melaleuca spp. Acacia spp); Proposal Areas for Bridge 0765 and 1051 falls within Vegetation Association 1049 (Wheatbelt; York gum, salmon gum etc. <i>Eucalyptus loxophleba</i>, <i>E. salmonophloia</i>. Goldfields; gimlet, redwood etc. <i>E. salubris</i>, <i>E. oleosa</i>. Riverine; rivergum <i>E. camaldulensis</i>. Tropical; messmate, woollyb). The Proposal Areas fall within an extensively cleared area, however, given the completely degraded and degraded condition of the majority of vegetation in the Proposal Areas, it does not represent an intact native remnant. The limited amount of vegetation to be cleared also does not comprise a high level of biological diversity, important habitat for significant flora or fauna or an ecological linkage. Therefore, the proposed clearing is unlikely to be at variance to this Principle.</p>

<p>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.</p>	<p>No riparian vegetation will be cleared using CPS 818. Based on the above, the proposed clearing is not at variance to this Principle.</p>																												
<p>Principle (g) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.</p>	<p>The vegetation condition ranges from 'Completely Degraded to Degraded', therefore driving or any other disturbance works associated with the bridge replacements over the vegetation will not cause appreciable land degradation. The risks are high across the bridges as outlined in the table below. To mitigate risks and avoid appreciable land degradation (such as sedimentation), the works are planned for summer.</p> <table border="1"> <thead> <tr> <th>Aspect</th> <th colspan="3">Risk</th> </tr> <tr> <td></td> <th>Bridge 0762</th> <th>Bridge 0765</th> <th>Bridge 1051</th> </tr> </thead> <tbody> <tr> <td>Flood Risk</td> <td>>70%</td> <td><3% (north) and >70% (south)</td> <td>>70%</td> </tr> <tr> <td>Salinity</td> <td>30-50%</td> <td><3% (north) and 30-50% (south)</td> <td>30-50%</td> </tr> <tr> <td>Waterlogging</td> <td>>70%</td> <td><3% (north) and >70% (south)</td> <td>>70%</td> </tr> <tr> <td>Water Erosion</td> <td><3%</td> <td>3-10% (north) and <3% (south)</td> <td><3%</td> </tr> <tr> <td>Wind Erosion</td> <td>50-70%</td> <td>10-30% (north) and 50-70% (south)</td> <td>50-70%</td> </tr> </tbody> </table> <p>Given the small narrow strips of clearing proposed, which comprise degraded to completely degraded vegetation that is adjacent to existing infrastructure, the proposed clearing is considered unlikely to cause appreciable land degradation. Based on the above, the proposed clearing is not at variance to this Principle.</p>	Aspect	Risk				Bridge 0762	Bridge 0765	Bridge 1051	Flood Risk	>70%	<3% (north) and >70% (south)	>70%	Salinity	30-50%	<3% (north) and 30-50% (south)	30-50%	Waterlogging	>70%	<3% (north) and >70% (south)	>70%	Water Erosion	<3%	3-10% (north) and <3% (south)	<3%	Wind Erosion	50-70%	10-30% (north) and 50-70% (south)	50-70%
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<p>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.</p>	<p>There are no reserves or conservation areas located within and in the vicinity of the Proposal Areas for Bridges 0762, 0765 and 1051. Based on the above, the proposed clearing is not at variance to this Principle.</p>																												

<p>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.</p>	<p>The proposal areas lie within a surface water proclaimed area, Avon River Catchment Area but not within a Public drinking water source area or proclaimed groundwater area.</p> <p>Boonjading Brook, Bajorpin Brook, and Burabadji Brook are minor, non-perennial watercourses located next to the proposal areas. As stated under Principle (a), the condition of vegetation surrounding these watercourses is already Degraded to Completely Degraded.</p> <p>There are no Public Drinking Water Source Areas within or in proximity to any of the Proposal Areas. The proposed native vegetation clearing of 0.881 ha along an existing major road (M032) is not likely to alter groundwater quality in the area.</p> <p>The proposed native vegetation clearing for the bridge replacements on Northam Pithara is not likely to impact surface or underground water flows or quality. Drainage design will maintain flows similar to those currently in place. The minor scale and linear nature of the clearing is unlikely to result in excessive levels of surface runoff that adversely affect surface or underground water flows or quality. In the event that there is water flow or pooling, a hydrocarbon boom and silt curtain will be installed downgradient from the Proposal Area, and a silt curtain covering the full depth of the river will be installed.</p> <p>The proposed clearing is not likely to be at variance to Principle (i).</p>
<p>Principle (j) – Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.</p>	<p>The proposal area lies within a surface water proclaimed area. Three minor non-perennial watercourses intersect the Proposal Areas (Boonjading Brook, Bajorpin Brook, and Burabadji Brook). Drainage design will maintain flows similar to those currently in place for this length of road. The relatively minor scale and linear nature of the proposed clearing is unlikely to cause excessive surface runoff that will adversely affect surface water flows or quality.</p> <p>Overall, suggest that the proposal is unlikely to exacerbate the incidence or intensity of flooding given:</p> <ul style="list-style-type: none"> • Vegetation condition. • Small areas of clearing. • Shape of clearing areas (thin strips adjacent to existing disturbance) • Fairly low annual rainfall.
<p>Methodology Used and References:</p>	<p>Main Roads Site Inspection Report (Bridge 0762): March 2021a D21#955728</p> <p>Main Roads Site Inspection Report (Bridge 0765): March 2021b D21#956895</p> <p>Main Roads Site Inspection Report (Bridge 1051): March 2021c D21#966109</p> <p>Astron (2016) Site Inspection Reports (D21#955589, D21#955641, D21#955692)</p>
<p>Completed By:</p>	
<p>Name</p>	
<p>Signature</p>	
<p>Job Title</p>	<p>Senior Environment Officer (A)</p>
<p>Date</p>	<p>09/12/2021</p>

DECISION ON CLEARING ASSESSMENT**Clearing Assessment****ENDORSED** **REFUSED** **Comments****Name****Signature****Job Title**

Environment Officer

Date

07/02/2022