Clearing Desktop Report – Short Form

1. PROPOSAL DETAILS

Proposal Name:	Bridge 4854 Replacement		
Region/Directorate:	South West Region		
Local Government Authority:	City of Busselton (CoB)		
Road/Bridge Name and No:	Bridge 4854 – Boallia Road 2050033		
Proposal Location (SLK):	6.96 SLK		
TRIM Link to Spatial Data:	D21#618339		
EOS No:	2350		
Expected Proposal Start Date:	14/07/2022		
Project No:	21100308	**Task Code:**	11.02
LISC TRIM No:	D21#613472	**HRA TRIM No:**	D21#273303

2. PURPOSE OF CLEARING

Clearing is required for the road to tie into a marginally wider bridge which will be located in the same place as the old structure, and the installation of associated safety barriers.

3. ALTERNATIVES TO CLEARING

Trees are already close to the road formation on the western side of Boallia Road. The widening of the bridge and associated road tie-ins requires the minor additional clearing on the approaches and departures from the bridge. If the clearing was not undertaken, trees would be immediately abutting the road seal on the outside bend in the road, posing a significant safety hazard to vehicles.

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

Clearing is primarily being undertaken on one side of the road and safety barriers have reduced the amount of clearing that would otherwise be required.

5. APPROVED POLICES AND PLANNING INSTRUMENTS

The clearing of native vegetation in Western Australia is regulated under the *Environmental Protection Act 1986* (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):	0.1 ha	**No. Trees Cleared:**	~25 trees of varying sizes
Species Name:	*Corymbia callophylla*		
Easting and Northing:	50H 339685 6268158 to 50H 339685 6268158		

7. EXISTING ENVIRONMENT AND SITE INFORMATION

Site Vegetation Description/Association:	Vegetation to be cleared within the Proposal area is Marri over kikuyu and other weed species.
Site Vegetation Condition:	Vegetation within the Proposal area was in Degraded to Completely degraded condition (EPA 2016).
Pre-European Extent Remaining (%):	Vegetation Association 1136 Woodland southwest: Jarrah, marri and wandoo *Eucalyptus marginata*, *Corymbia calophylla*, *E. wandoo:* – Statewide 1136 – 6.95% – Swan Coastal Plain 1136 – 6.94% – City of Busselton – 40% (1136 – 6.78%) South West Vegetation Complex Statistics Abba 30: A mixture of open forest of *Corymbia calophylla* (Marri) - *Eucalyptus marginata* (Jarrah) - Banksia species and woodland of *Corymbia calophylla* (Marri) with minor occurrences of *Corymbia haematoxylon* (Mountain Marri). Woodland of *Eucalyptus rudis* (Flooded Gum) - Melaleuca species along creeks and on flood plains. – Swan Coastal Plain – 6.54% – City of Busselton – 6.64%

8. ASSESSMENT OF PROPOSAL AGAINST CLEARING PRINCIPLES

Is vegetation to be cleared at variance with:	**Justification or Evidence:**
Principle (a) – Native vegetation should not be cleared if it	The vegetation within the Proposal area is in Degraded to Completely degraded condition (EPA 2016), presenting as a narrow strip of roadside remnant Marri

comprises a high level of biological diversity.	trees over a mostly cleared understorey, infested with kikuyu grass and other weed species (see Appendix A). There are 25 Threatened and Priority flora species (according to ArcGIS shapefiles) with known records within the Study Area. There was no suitable habitat present in the Degraded to Completely degraded road reserve, for any of the small herbaceous species, which would be outcompeted by the weed dominant understory. The remaining species are more conspicuous shrub species and would have been noted if present during the Site Inspection undertaken by Main Roads Environment Officers. Due to the distance of any known records of significant flora (more than 2 km) from the Proposal area, lack of suitable habitat for the species identified within the Proposal area, Degraded condition of the vegetation within the Proposal area and historical disturbance from road construction and maintenance activities, it is unlikely Threatened or Priority flora would occur within the Proposal area. There are known records of 17 species of Threatened and Priority fauna species (according to ArcGIS shapefiles) within the Study Area. Only 5 of these species have suitable habitat within the Proposal area: the 3 Threatened black cockatoo species, Western Ringtail Possum and Water-rat. *Black Cockatoo* From a total of 22 DBH trees identified within the survey area, 2 of which had hollows, the Proposal will only require the clearing of up to 6 diameter at breast height (DBH) trees, none of which contain hollows (SW Environmental, 2022). The Proposal area has been used for foraging as evidenced through old feed residue. In a local context, there are few reserved areas available within 5 km with quality foraging and breeding resources however, approximately 0.28 ha of quality foraging habitat occurs within the survey, of which up to 0.1 ha will be removed. It is considered the foraging habitat is of relatively low significance being well under the 1 ha criteria identified in the Commonwealth EPBC Act referral guidelines (SEWPaC 2012). No roost sites were observed in the survey area. The removal of up to 0.1 ha of Degraded roadside vegetation is not likely to have any direct or indirect impacts on significant fauna species. *Western Ringtail Possum* The Proposal is within the known distribution for Western Ringtail Possum, with the nearest known record on Main Roads ArcGIS shapefiles, approximately 2.5 km to the east. The Proposal requires the removal of up to 0.1 ha of Marri over weeds. According to the Western Ringtail Possum Recovery Plan, key habitat requirements for the possum are high nutrient foliage availability for food, suitable structures for protection/nesting, and canopy continuity to avoid/escape predation, and other threats. The vegetation in the Proposal is unlikely to support a population of Western Ringtail Possum, given its Degraded to Completely degraded condition. The vegetation proposed for removal is not intact enough, with limited suitable structures/protection for nesting and is not connected enough within the broader landscape to be important as a dispersal corridor. Vegetation within the Proposal area is not considered to be significant habitat for the species. Given the Proposal's location within the Swan Coastal Plain Management Zone, a suitably qualified ecologist will be present on site to supervise clearing and ensure that no possums are within the trees proposed for removal. The Proposal is not likely to have a significant direct or indirect impact on this species or any individuals.

	Water-rat The Water-rat is thought to occur broadly across the south west of Western Australia. The species lives in burrows on low banks of rivers, lakes, wetlands, estuaries and even along the coast. Intact riparian vegetation and associated bank stability is critical to their survival. Although there are known records of the species within the study area, the Degraded to Completely degraded condition of the Proposal area makes it unsuitable for the species to thrive. None of the vegetation proposed for removal is growing on the bed and banks of a watercourse and the clearing proposed does not involve the removal of riparian vegetation which would support habitat for the Water-rat. It is not anticipated the Proposal will have a significant impact on this species. There are no local nor regional ecological linkages that will be impacted by the proposed works. There are no environmentally sensitive areas (ESA) within the vicinity of the Proposal area. The Proposal area contains minimal native vegetation in Degraded condition. There were a number of small parcels of land in the study area containing vegetation which is more intact and in comparably better condition. Blackwood State Forest and Whicher National Park are extensive, vegetated parcels of DBCA managed land that occur outside of the Study area but within 20 km of the Proposal area. Works are unlikely to have a significant impact on biodiversity and are not likely to be at variance with this clearing principle.
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.	The vegetation within the Proposal area is in Degraded condition (EPA 2016), presenting as narrow roadside remnant of Marri trees over a mostly cleared understorey, infested with kikuyu grass and other weed species (see Appendix A). Of the 17 fauna species with known records in the study area (Main Roads GIS shapefiles), only the 3 Threatened black cockatoo species, Western Ringtail Possum and the Water-rat, have suitable habitat within the Proposal area. *Threatened black cockatoo species* 3 species of Threatened black cockatoo (Carnaby's Cockatoo; Baudin's Cockatoo and Forest Red-tailed Black Cockatoo) have known habitat within the Proposal area. Desktop surveys identified that all 3 black cockatoo species have been recorded locally. From a total of 22 DBH trees identified within the survey area, 2 of which had hollows, the Proposal will only require the clearing of up to 6 diameter at breast height (DBH) trees, none of which contain hollows (SW Environmental, 2022). In a local context, there are few reserved areas available within 5 km with foraging and breeding resources. The closest DBCA reserve over 50 ha in size, the Blackwood State Forest, is located approximately 8 – 9 km south of the study area. There are no Important Bird Areas (IBA) nearby, the closest, Busselton Wetlands IBA, is nearly 5 km away and not associated with black cockatoos. All 3 black cockatoo species were recorded through old feed residue at each site (SW Environmental, 2022). Approximately 0.28 ha of quality foraging habitat occurs within the survey area, of which up to 0.1 ha will be removed. This area of foraging habitat is of relatively low significance being well under the 1 ha criteria identified in the Commonwealth EPBC Act referral guidelines (SEWPaC 2012), however in a local context, there are few reserved areas available within 5 km with quality foraging and breeding resources. No roost sites were observed in the survey area. The Proposal to remove up to 6 DBH trees (no hollows) is not

	likely to have a significant impact of any of the Threatened black cockatoo species. *Western Ringtail Possum* The Proposal is within the known distribution for Western Ringtail Possum, with the nearest known record on Main Roads ArcGIS shapefiles, approximately 2.5 km to the east. The Proposal requires the removal of up to 0.1 ha of Marri over weeds. According to the Western Ringtail Possum Recovery Plan, key habitat requirements for the possum are high nutrient foliage availability for food, suitable structures for protection/nesting, and canopy continuity to avoid/escape predation, and other threats. The vegetation in the Proposal is unlikely to support a population of Western Ringtail Possum, given its Degraded to Completely degraded condition. The vegetation proposed for removal is not intact enough, with limited suitable structures/protection for nesting and is not connected enough within the broader landscape to be important as a dispersal corridor. Vegetation within the Proposal area is not considered to be significant habitat for the species. Given the Proposal's location within the Swan Coastal Plain Management Zone, a suitably qualified ecologist will be present on site to supervise clearing and ensure that no possums are within the trees proposed for removal. The Proposal is not likely to have a significant direct or indirect impact on this species or any individuals. *Water-rat* The Water-rat is thought to occur broadly across the south west of Western Australia. The species live in burrows on low banks of rivers, lakes, wetlands, estuaries and even along the coast. Intact riparian vegetation and associated bank stability is critical to their survival. Although there are known records of the species within the study area, the Degraded condition of the Proposal area makes it unsuitable for the species to thrive. None of the vegetation proposed for removal is growing on the bed and banks of a watercourse and the clearing proposed does not involve the removal of riparian vegetation which would support habitat for the Water-rat. It is not anticipated the Proposal will have a significant impact on this species. The remaining species with known records within the study area are migratory and wetland bird species. These species are highly mobile in nature and the lack of core habitat within the Proposal area, makes it unlikely that the species will be significantly impacted by the Proposal. The proposed clearing is not likely to be at variance with this Principle.
Principle (c) – Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	The vegetation within the Proposal area is in Degraded condition (EPA 2016), presenting as a narrow strip of roadside remnant Marri trees over a mostly cleared understorey, infested with kikuyu grass and other weed species (see Appendix A). According to ArcGIS Shapefiles and the PMST report, there is potential habitat for 22 Threatened flora species within the Study Area, of which 7 species have known records within the study area. There was no suitable habitat present in the Degraded road reserve, for any of the small herbaceous species, which would be outcompeted by the weed dominant understory. The remaining species are more conspicuous shrub species and would have been noted if present during the Site Inspection undertaken by Main Roads Environment Officers. Due to the distance of any known records of significant flora (more than 2 km) from the Proposal area, lack of suitable habitat for the species identified as likely to occur within the Proposal area, Degraded condition of the

	vegetation within the DE and historical disturbance from road construction and maintenance activities, it is unlikely Threatened or Priority flora would occur within the DE. Given the Degraded condition of the Proposal area and minor clearing associated with the Proposal, clearing is not likely to be at variance within the Principle.
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.	The Proposal area is not within any TECs according to Main Roads' ArcGIS Shapefiles. The PMST report and GIS shapefiles identified the following TECs that were known to occur within the study area: • Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain ecological community – Critically Endangered; • Clay Pans of the Swan Coastal Plain – Critically Endangered; • Banksia Woodlands of the Swan Coastal Plain ecological community – Endangered. According to Main Roads GIS shapefiles, the nearest TEC is Banksia Woodlands of the Swan Coastal Plain, which occurs approximately 500 m to the south east of the Proposal area. The vegetation within the Proposal area, as described during the Site Inspection undertaken by Main Roads Environment Officers (Appendix A) is not representative of any of the three TECs identified within the study area, based on the absence of some species and Degraded condition of the vegetation with an understory predominantly consisting of weeds. The proposed clearing is not likely to be at variance with this Principle.
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.	In the South West region, the Swan Coastal Plain IBRA region retains approximately 34.32% of its pre-European native vegetation extent (Government of Western Australia 2019a). The Abba 30 vegetation complex mapped within the application area and the local area retain 6.54% and 6.64% of pre-European extents, respectively (Government of Western Australia 2019b). Noting the Abba 30 and local area pre-European extents are below the 10% thresholds, the vegetation within the application area is considered to occur within an area that has been extensively cleared. The Abba 30 vegetation complex is characterised as 'a mixture of open forest of *Corymbia calophylla* (Marri) - *Eucalyptus marginata* (Jarrah) - Banksia species and woodland of *C. calophylla* (Marri) with minor occurrences of *C. haematoxylon* (Mountain Marri). Woodland of *E. rudis* (Flooded Gum) - Melaleuca species along creeks and on flood plains. (Mattiske and Havel, 1998). The site inspection of the Proposal area conducted by Main Roads Environment Officers determined that the vegetation within the Proposal area primarily comprises Marri over introduced grass and weed species. The absence of species other than Marri that represent this vegetation complex and the vegetation present within the proposal area in Degraded to Completely degraded condition, it is considered that this vegetation is not representative the Abba 30 vegetation complex. A similar assessment was made by DWER for CPS 8662-01 for the removal of vegetation under the 10% threshold.

	Given the above, the small extent of clearing proposed, and the Degraded (Keighery, 1994) vegetation condition, the proposed clearing is not likely to comprise a significant remnant within an extensively cleared area. The proposed clearing is not likely to be at variance with this Principle.
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.	The works require the removal of up to 0.1 ha of degraded roadside vegetation. The clearing will occur in a previously disturbed environment to facilitate the replacement of the widened bridge structure and tie-in to the existing road. None of the vegetation proposed for removal is growing on the bed and banks of the watercourse. All vegetation growing in association with the watercourse are weed species (see Appendix A). In addition to this none of the species proposed for removal outside of the watercourse channel are riparian species. Given the above, the proposed works are not likely to be at variance with this Principle.
Principle (g) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	The works require the removal of up to 0.1 ha of roadside vegetation in Degraded to Completely degraded condition. The clearing will occur in a previously disturbed environment to facilitate the replacement of the widened bridge structure and tie-in to the existing road. Given the works include the improvement to roadside drainage infrastructure within an historically disturbed environment, the clearing of native vegetation is not at variance with this Principle.
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.	The Proposal area is approximately 4.5 km from the nearest parcel of Department of Biodiversity, Conservation and Attractions (DBCA) managed land 'Broadwater Nature Reserve'. Given the distance from the nearest conservation area, and the minor scale of clearing (up to 0.1 ha) and nature of the activities, clearing of native vegetation is not at variance with this Principle.
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.	The works require the removal of up to 0.1 ha of roadside vegetation in Degraded to Completely degraded condition. The clearing will occur in a previously disturbed environment to facilitate the replacement of the widened bridge structure and tie-in to the existing road. Surface water quality is unlikely to be negatively impacted by the removal of up to 0.1 ha of vegetation growing in the road verge. Vegetation within the watercourse is weed species only and their removal is unlikely to result in any sedimentation or water quality/quantity changes. Environmental management actions will be incorporated into the CEMP to ensure no deterioration to water quality should the watercourse be flowing during any ground disturbing works. The removal of up to 0.1 ha of native vegetation is unlikely to impact groundwater levels or quality. Furthermore, the works are not likely to intercept groundwater levels as they will not exceed 0.5 m below current ground level. The clearing of native vegetation is not at variance with this Principle.
Principle (j) – Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.	The works require the removal of up to 0.1 ha of roadside vegetation in Degraded to Completely degraded condition. The clearing will occur in a previously disturbed environment to facilitate the replacement of the widened bridge structure and tie-in to the existing road. The removal of the vegetation is unlikely to alter the incidence or intensity of flooding.

	The clearing of native vegetation is not at variance with this Principle.
Methodology Used and References:	Main Roads Site Inspection and map – D21#1220140 Black Cockatoo Assessment - D22#690788 Shapefile of clearing area/trees D22#796424 CPS 8662-01 – Shire of West Arthur

Completed By:	
Name	[redacted]
Signature	[redacted]
Job Title	Environment Officer
Date	27/07/2022

Once all sections are completed, send the form to CRSP for review and endorsement.

DECISION ON CLEARING ASSESSMENT		
Clearing Assessment	**ENDORSED** ☒	**REFUSED** ☐
Comments	The 25 trees represent a narrow strip of roadside remnant Marri trees in an area where vegetation condition is Degraded with mostly cleared understorey, infested with kikuyu grass and other weed species. Justification has been provided to demonstrate the removal of these trees will result in low impact and is not likely to be at variance with the clearing principles.	
Name	[redacted]	
Signature	[redacted]	
Job Title	Senior Environment Officer	
Date	05/08/2022	

Appendix A: Environmental Site Inspection Report

ENVIRONMENTAL SITE INSPECTION REPORT FOR A CLEARING DESKTOP REPORT (CDR)

Bridge 4854 Replacement and EOS # 2350

SITE INSPECTION DETAILS		
Date:	26/11/2021	
Location:	Bridge 4854, Boallia Road 6.96 SLK City of Busselton	
Region/ Directorate:	South West Region	
Purpose:	CDR Short Form	
Attendees:	Environment Officer	Main Roads

SITE VISIT DETAILS AND METHODOLOGY

- Drove to the works area.
- Walked the clearing line, identifying diameter at breast height (DBH) trees vegetation type/condition, flora species (including weeds) and taking representative site photos.
- Marked DBH trees and looked for presence of hollows.

SITE DESCRIPTION

- Site context - The works area is remnant vegetation adjacent to a road verge and cleared paddocks.
- Fauna - No fauna observation were made during the site visit.
- Flora – No Threatened or priority flora species or habitat was observed during the site visit.
- Local and Regional ecological linkages - The works are within a highly modified and cleared landscape and the watercourse and road reserve vegetation does not provide ecological connectivity on a local or regional scale to any patches of intact vegetation.
- Soil characteristics – watercourse bed was rocky and silty, with land adjacent to the road sandy loam.
- Landforms – No granite outcrops, limestone or steep topography was present. The works area is a minor non-perennial watercourse on flats of the southern Swan Coastal Plain.
- Hydrology – There was little to no water within the watercourse during the inspection.
- Disturbance – there was significant introduced grass species at the bridge location, some evidence of minor rubbish dumping, erosion and Marri canker

RESULTS

REMNANT VEGETATION			
Area (ha):	Up to 0.1 ha		
Number & ID of Trees:	**DBH >30cm:** **Species:**	**DBH >50cm:** 4 **Species:** 4 Marri	**DBH >1m:** **Species:**
Species:	**Trees –** Marri and Flooded Gum		
	Shrubs – N/A		
Vegetation Condition:	Degraded to Completely Degraded condition (EPA, 2016)		
Vegetation Structure:	Mature trees over weeds		

Vegetation Composition:	N/A
Significant flora observed/recorded:	None – Introduced grasses were very thick and unlikely to have suitable habitat for any conservation significant flora species.
Fauna Habitat Values:	4 trees with a suitable DBH for forming hollows within the impact footprint of the Proposal area. None appeared to contain hollows.
Declared weeds or Weeds of National Significance	Common weeds species, wild rocket, *Atropa belladonna* (Deadly nightshade), kikuyu grass etc.

PLANTED VEGETATION

None

OTHER:

None

SUMMARY

Actions:

Discuss opportunity to limit clearing requirements with the PM.

Black Cockatoo assessment to confirm findings from site inspection.

Approvals Required:

PERA and CDR Short Form required

REFERENCES

N/A

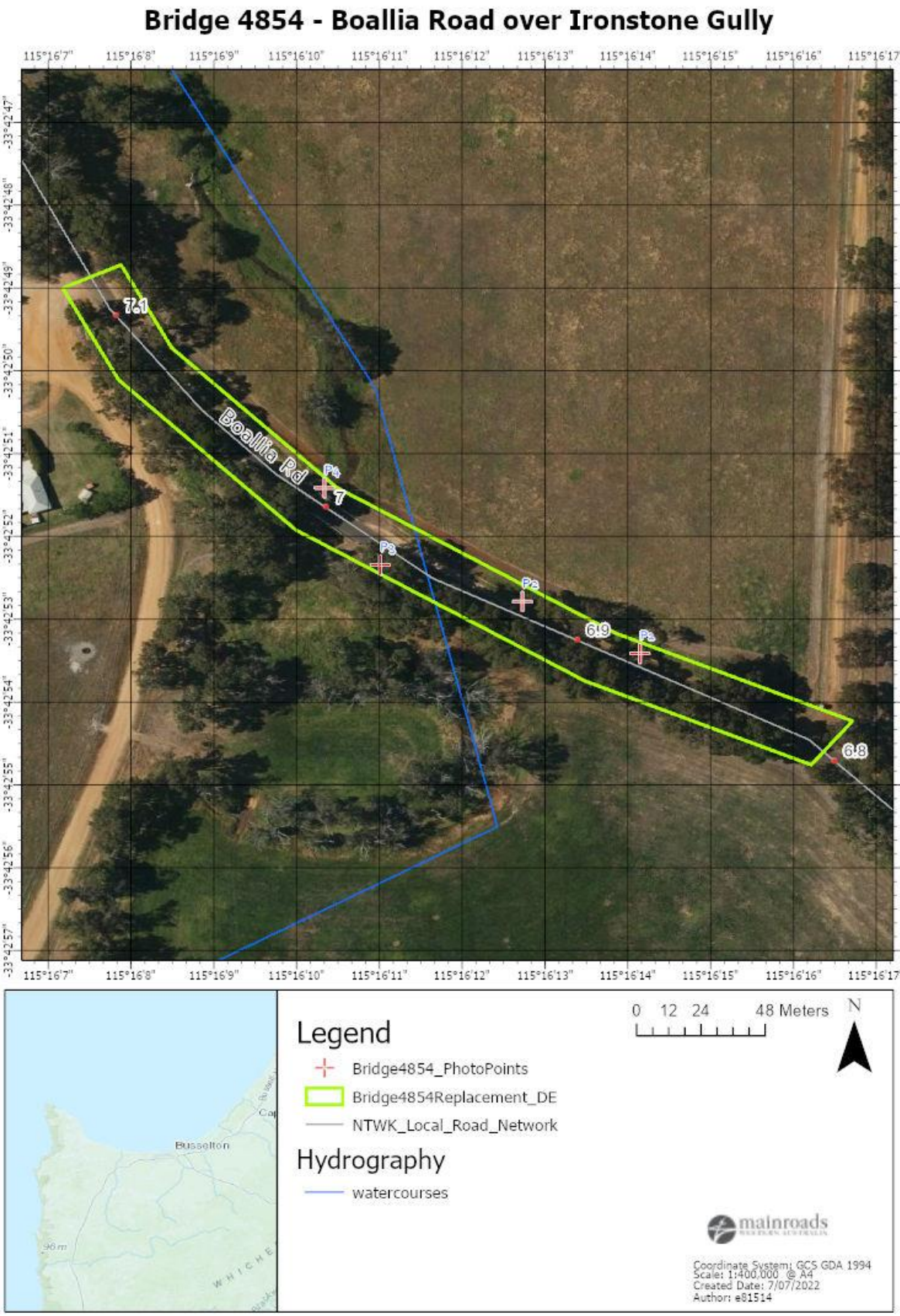

Figure 1: Site Inspection Map

SITE PHOTOS

Photo 1: Trees with white dots within the Proposal area, identifying those requiring removal. Photo taken in the southern extent of the Proposal area facing south.

Photo 2: Trees with white dots within the Proposal area, identifying those requiring removal. Photo taken in the southern extent of the Proposal area facing west.

SITE PHOTOS

Photo 3: Representative of the watercourse banks within the Proposal area, demonstrating the highly degraded and weed invaded condition. Photo taken on the southern side of Boallia Road facing west.

Photo 4: Representative photo of the watercourse within the Proposal area, depicting the rocky and dry riverbed. Photo taken in the northern side of Boallia Road facing east.