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ENVIRONMENT

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Our Ref: YWAMIL01
Date: 06 October 2025

Attention:
Meenu Vitarana
A/Senior Manager
Native Vegetation Regulation

Department of Water and Environmental Regulation
8 Davidson Terrace
Joondalup WA 6027

Via email: Meenu.Vitarana@dwer.wa.gov.au; info@dwer.wa.gov.au

Dear Meenu

Application for Clearing Referral: Millstream North Groundwater Investigations

Please find below the supporting information required to assist the Department of Water and Environmental Regulation's (DWER's) assessment of Yindjibarndi Water's application to clear 0.18 hectares (ha) of native vegetation, located across eight discrete areas in Millstream, Western Australia (Figure 1).

1. Background

Yindjibarndi Water on behalf of Water Corporation is proposing to undertake a groundwater investigation program in Millstream, Western Australia. Eight locations have been identified along the existing Water Corporation access road and pipeline, where exploratory wells will be drilled with the objective of identifying new sources of drinking water.

The proposed drilling locations have been strategically selected based on:

- Proximity to the existing Water Corporation water pipeline
- Ease of accessibility from the pipeline access road
- The highly degraded condition of each site and/or absence of remnant native vegetation

At each of the eight locations, the creation of a drill pad will necessitate clearing and ground disturbing works within a demarcated 15 meter (m) by 15 m area (225 m^2). These disturbance footprints will be strategically located within a broader 30 m by 30 m development envelope (900m^2), across which pre-disturbance site investigations have and will be undertaken, to ensure that potential environmental and cultural impacts can be mitigated to the fullest extent practicable.

Where bores are not converted into drinking water production bores, these areas will be subject to rehabilitation in accordance with the conditions of the Department of Biodiversity, Conservation and Attractions (DBCA's) authorisation to access the land and undertake the works.

2. Existing Environment

Land Use

The location and tenure of the eight proposed clearing areas is presented in Table 1.

Table 1: Proposal location

Target	Lot	Responsible Authority
8	Reserve 30071 Lot 50 on DP 221427	Millstream Chichester National Park – Department of Biodiversity, Conservation and Attractions
2		
3		
4		
5a		
6		
7	Reserve 30071 Lot 502 on DP61847	
1	Reserve 36991 Lot 93 on DP213136	Water Corporation

Recognising that all but one site is located within Millstream Chichester National Park, Yindjibarndi Water sought consent from Cho Lamb – Pilbara Region Environmental Officer at the DBCA to access the land and undertake the clearing. Permission was subsequently granted to Yindjibarndi Water through a Regulation 4 authorisation under the *Conservation and Land Management Regulations 2002*, and approval was issued through DBCA's Disturbance Assessment System. Each of these authorisations have been provided with the clearing referral.

Permission to access Reserve 36991 Lot 93 has also been provided by Water Corporation, and included within this clearing referral.

Topography and Land Systems

Topographic mapping available via Landgate (2025) indicates a general elevation across the proposed clearing areas of between 250 and 290 m Australian Height Datum (mAHD).

At a landscape scale, land systems of the Pilbara were classified and mapped by Van Vreeswyk *et al*. (2004) according to similarities in landform, soil, vegetation, geology and geomorphology. The proposed clearing areas are located on three such land systems, being:

- Rocklea system – Basalt hills, plateaux, lower slopes and minor stony plains supporting hard spinifex and occasionally soft spinifex grasslands with scattered shrubs (Target 8)
- Capricorn System – Rugged sandstone hills, ridges, stony footslopes and interfluves supporting low acacia shrublands or hard spinifex grasslands with scattered shrubs (Targets 2, 3, 4, 5 and 6)
- McKay system – Hills, ridges, plateaux remnants and breakaways of meta sedimentary and sedimentary rocks supporting hard spinifex grasslands with acacias and occasional eucalypts (Targets 1 and 7).

Flora, Vegetation and Fauna

Pre-European vegetation within Western Australia has been mapped at a broad level by Beard (1975) as vegetation system associations. Across the proposed clearing areas, three vegetation system associations have been mapped. This vegetation, their descriptions, and their extents remaining within Western Australia are presented in Table 1 below.

Table 2: Vegetation System Associations intersecting the proposed clearing areas

Vegetation System Association	Description	Extent remaining within Western Australia*
Chichester Plateau_173	Hummock grassland with scattered shrubs or mallee *Triodia* spp. *Acacia* spp., *Grevillea* spp. *Eucalyptus* spp.	99.9%
Chichester Plateau_587	Sparse low tree-steppe / Sparse shrub-steppe	100%
Chichester Plateau_607	Hummock grassland with scattered bloodwoods & snappy gum *Triodia* spp., *Corymbia dichromophloia*, *Eucalyptus leucophloia*	99.84%

** Government of Western Australia (2019).*

To determine the potential presence of any conservation significant matter within any of the proposed clearing areas, three searches were conducted of the DBCA flora, fauna, and ecological communities databases. Based on a review of this data (Figure 2), no such flora, fauna, or ecological communities have been historically recorded within or in proximity to any of the clearing areas.

Yindjibarndi Water has proactively identified each of the eight sites based on their highly degraded condition as a result of historical disturbances, primarily associated with the construction and operation of the existing Water Corporation pipeline and associated access road. To confirm the degraded condition of each site, and ensure that the proposal would result in negligible environmental impacts, a site inspection was undertaken by Yindjibarndi Water in May 2025. Drone photography of each site taken during this site inspection is provided in Plates 1 to 7.

Plate 1: Drill target no. 1

Plate 2: Drill target no. 2 & 3

Plate 3: Drill target no. 4

Plate 4: Drill target 5a

Plate 5: Drill target no. 6

Plate 6: Drill target no. 7

Plate 7: Drill target no. 8

The above notwithstanding, to further mitigate the potential for the proposal to impact flora and vegetation values, Yindjibarndi Water has committed to the undertaking of a flora and vegetation survey of each development envelope, prior to any ground disturbing works commencing. This survey is included as a condition Yindjibarndi Water's approval to access the land and undertake the works, granted by DBCA (provided with this application).

Cultural Heritage

Each development envelope is located within the Ngarluma / Yindjibarndi Native Title Determination Area.

To ensure the proposed works do not impact any sites of cultural significance, a dedicated Aboriginal Archaeological Site Avoidance survey was undertaken of each development envelope, in collaboration with Yindjibarndi Ngurra Aboriginal Corporation (YNAC). One Aboriginal Archaeological site (YW_2025_001) was identified, which intersected the originally proposed location for target 5. To avoid this area, target 5a was proposed, and has been included as one of the eight locations subject to this application. All other recommendations from YNAC will be implemented by Yindjibarndi Water, including having Yindjibarndi representatives present as monitors during the clearing and ground disturbance phases of the proposed works.

The Aboriginal Archaeological Site Avoidance survey report has been provided with this application.

It is noted that Yindjibarndi Water (the proponent) is majority owned by Yindjibarndi Wealth Pty Ltd on behalf of the Yindjibarndi people.

3. Assessment Criteria

An assessment of the proposed clearing against the criteria described in the DWER's *Guideline: Native Vegetation Clearing Referrals* (DWER 2021) is provided in Table 1 below.

Table 3: Native Vegetation Clearing Referral Assessment Criteria

DWER Considerations	Assessment of Proposed Clearing
Criterion 1: The area proposed to be cleared is small relative to the total remaining vegetation	
If more than 10 ha is proposed to be cleared, a permit is required.	No more than 0.18 ha of native vegetation in a highly degraded condition is proposed to be cleared.
If less than 30% of that native vegetation association or complex is remaining within the relevant IBRA bioregion, a permit is required.	All vegetation system associations which intersect the proposed clearing areas have more than 99% of their pre-european extents remaining.
If less than 30% native vegetation is remaining within a 10 km buffer of the proposed clearing, a permit is required.	Regional mapping indicates that existing Water Corporation infrastructure (including pipeline and access road), and which is associated with the proposal, is the only location in proximity where native vegetation has previously been cleared.
Criterion 2: There are no known or likely significant environmental values within the area	
The quality of the existing remnant vegetation within and nearby the area to be cleared, based on the Keighery (1994) and/or Trudgen (1988) vegetation condition scales	All eight sites have been strategically located adjacent to the existing Water Corporation pipeline and associated access road, the construction and operation of which has resulted in extensive disturbance and degradation of the native vegetation. The poor condition of native vegetation was confirmed as part of a site inspection undertaken by Yindjibarndi Water. Representative photography from this inspection is provided at plates 1 to 7.
Whether the proposed clearing area provides habitat for any threatened, priority, or specially protected fauna	There are no records maintained by DBCA of any threatened, priority, or specially protected fauna within or in proximity to any of the proposed clearing areas (Figure 2). The highly degraded nature of each clearing area suggests that there is minimal utilisation of each site by native fauna.
Whether the proposed clearing area provides critical habitat for fauna	
Whether the proposed clearing area is part of a significant ecological linkage	Given the expansive nature of remnant vegetation in the immediate vicinity of each site, ecological linkages are not considered to be applicable to the proposed clearing.
The proximity of the proposed clearing to any threatened ecological communities (TEC) or priority ecological communities (PEC)	No TECs or PECs have been recorded in proximity to the proposed clearing areas (Figure 2).
The proximity of the proposed clearing to any records of threatened or priority flora	No threatened or priority flora have been recorded within or in proximity to any of the proposed clearing areas (Figure 2).
The proximity of the proposed clearing to any wetlands listed under the Convention on Wetlands of International Importance (Ramsar convention) or in the Directory of Important Wetlands in Australia, or wetlands classified as 'Conservation category' or 'Resource Enhancement'	There are no wetlands mapped in proximity to any of the proposed clearing areas.

DWER Considerations	Assessment of Proposed Clearing
Whether the proposed clearing may impact on a watercourse (e.g., the structural stability of a watercourse or deterioration of water quality)	The proposed clearing areas have been strategically located to be adjacent to the existing Water Corporation pipeline and associated access road, which is in turn located in proximity to the upper reaches of the Harding River. The minimal extent of clearing proposed, and the extent of existing disturbance at each site, suggests that impacts on the watercourse associated with the proposed works are unlikely.
Whether the clearing is in an area with high risk of decreasing water quality, rising groundwater levels or increasing salinity.	The proposal is being undertaken for the purpose of securing a viable source of drinking water. As a groundwater exploration program within a proclaimed groundwater area, the proposal is subject to separate assessment by DWER under the *Rights in Water and Irrigation Act 1914.* It is noted that other production bores operate successfully in the vicinity of the area, such as the Millstream West Pilbara Contingency bore (ref: 70912076), which has been operational since 2005.
Whether the proposed clearing is within a 'conservation reserve' (e.g., Bush Forever, Environmental Protection Policy areas, land managed by the Department of Biodiversity, Conservation and Attractions; Regional Open Spaces; crown reserves vested for conservation purposes.	Authorisation to access the land and undertake the clearing has been approved by DBCA through the issuance of a Regulation 4 authorisation, and Disturbance Assessment System approval (provided with this application.
Whether the clearing is in an area with high risk of land and/or soil degradation. Factors to determine this may include (among other matters) contaminated sites records, risk of dieback disease or acid sulfate soils (ASS), and susceptibility to erosion.	The proposed clearing areas do not intersect any contaminated sites, or areas at risk of acid sulfate soils or erosion (Landgate 2025).
Proximity to heritage-related values, including sites of Aboriginal significance, and native title matters.	A dedicated Aboriginal Archaeological Site Avoidance survey was undertaken of each proposed clearing area. All recommendations of this survey will be implemented to ensure no impacts to any heritage values.
Criterion 3: The state of scientific knowledge of native vegetation within the region is adequate	
DWER will use the information included in the referral along with scientific data from various databases, spatial datasets, and other relevant and readily available information to determine the adequacy of the level of scientific knowledge about native vegetation within the region in which the area is situated. If the available information is not adequate, and additional information is required, a permit is highly likely to be required. Referrals will be assessed using the information available at the time. However, this information does change over time; for example, as the conservation status of certain species are revised, or new cumulative impacts become evident. Accordingly, if the proposed clearing cannot be completed within two years, a permit will be required for that clearing. If the clearing authorised under the referral is not	The proposed clearing areas are located within the Eremaean botanical provide of Western Australia (Beard 1975). Flora and vegetation information is available at a regional scale through several databases. Site specific botanical information will be collected in the course of flora and vegetation surveys, which are required as a condition of Yindjibarndi Water's authority to access these sites and undertake the clearing, granted by DBCA.

DWER Considerations	Assessment of Proposed Clearing
undertaken within two years, a new referral may be submitted.	
Criterion 4: Conditions will not be required to manage environmental impacts	
Applicants and referrers should, as much as practicable, avoid and minimise environmental impacts to the area while planning their clearing activity. Clearing activities that are likely to require conditions to minimise, mitigate, offset, or otherwise manage effects on the environment are highly likely to need a permit.	Existing approvals applicable to the proposal already include conditions which effectively serve to avoid and minimise potential environmental impacts. This includes the Regulation 4 authority and Disturbance Assessment System approval granted by DBCA (provided with this application), and approvals under the *Rights in Water and Irrigation Act 1914*. No further conditions of approval are anticipated to be required.

4. Conclusion

Yindjibarndi Water is proposing to undertake minor clearing of native vegetation to facilitate the establishment of eight drill pads for a groundwater exploration program. The proposed clearing is anticipated to have a very low environmental impact, and is therefore considered appropriate for the Native Vegetation Clearing Referral process provided for under section 51DA of the *Environmental Protection Act 1986.* An assessment of the proposed clearing against the four criteria described in the Vegetation Clearing Referrals Guideline (DWER 2021) determined that the proposed clearing satisfies all of these criteria.

Recognising that Yindjibarndi Water aims to conclude all ground disturbing activities prior to wet season rains so as to further minimise potential environmental impacts, it is respectfully requested that this application be given prompt consideration by the department.

Yours sincerely

William Oversby
Principal Scientist

References

Beard, J. S. (1975). *Vegetation survey of Western Australia: Pilbara. 1:1 000000 Vegetation Series.* The Vegetation of the Pilbara Area. University of Western Australia Press.

Department of Water and Environmental Regulation (DWER) (2021). *Guideline: Native Vegetation Clearing Referrals.* Government of Western Australia.

Government of Western Australia (GoWA) (2019). *2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019.* WA Department of Biodiversity, Conservation and Attractions, Perth.

Van Vreeswyk, A M, Leighton, K A, Payne, A L, and Hennig, P. (2004). *An inventory and condition survey of the Pilbara region, Western Australia.* Department of Agriculture, Western Australia, Perth. Technical Bulletin 92

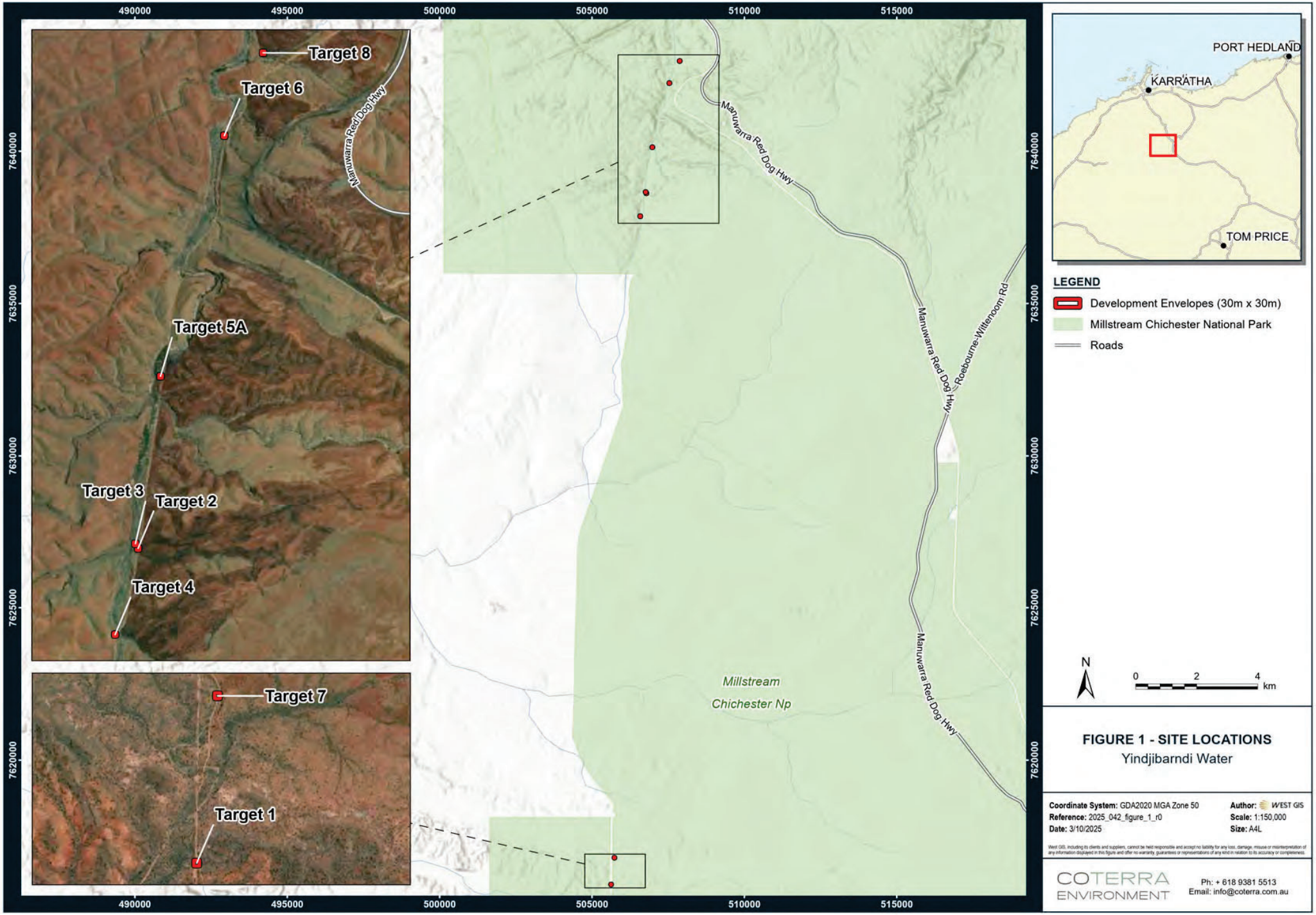

FIGURE 1 - SITE LOCATIONS

Yindjibarndi Water

Coordinate System: GDA2020 MGA Zone 50
Reference: 2025_042_figure_1_r0
Date: 3/10/2025
Author: WEST GIS
Scale: 1:150,000
Size: A4L

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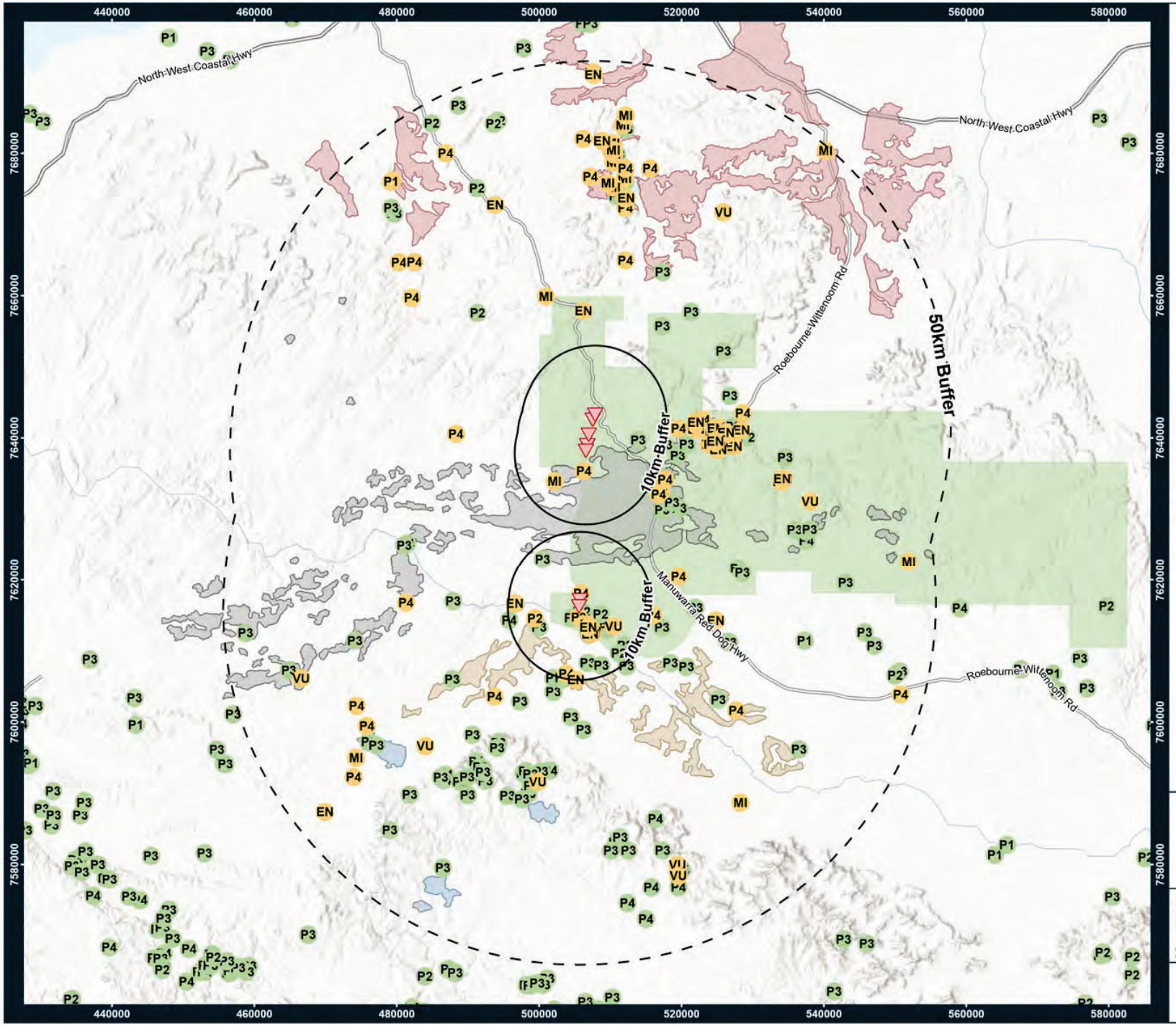

LEGEND

Development Envelopes (30m x 30m)

Millstream Chichester National Park

Threatened and Priority Ecological Communities (DBCA)

- Horseflat Land System - Priority 3
- Kanjenjie Land System - Priority 3
- Kumina Land System - Priority 3
- Wona Land System - Priority 1

Threatened Fauna (DBCA)

- EN Endangered
- VU Vulnerable
- MI Migratory
- P1 Priority 1
- P2 Priority 2
- P3 Priority 3
- P4 Priority 4

Threatened Flora (DBCA)

- P1 Priority 1
- P2 Priority 2
- P3 Priority 3
- P4 Priority 4

N

0 10 20 km

FIGURE 2A - FLORA, FAUNA AND ECOLOGICAL COMMUNITIES

Yindjibarndi Water

Coordinate System: GDA2020 MGA Zone 50
Reference: 2025_042_figure_2a_r0
Date: 3/10/2025
Author: WEST GIS
Scale: 1:720,000
Size: A4L

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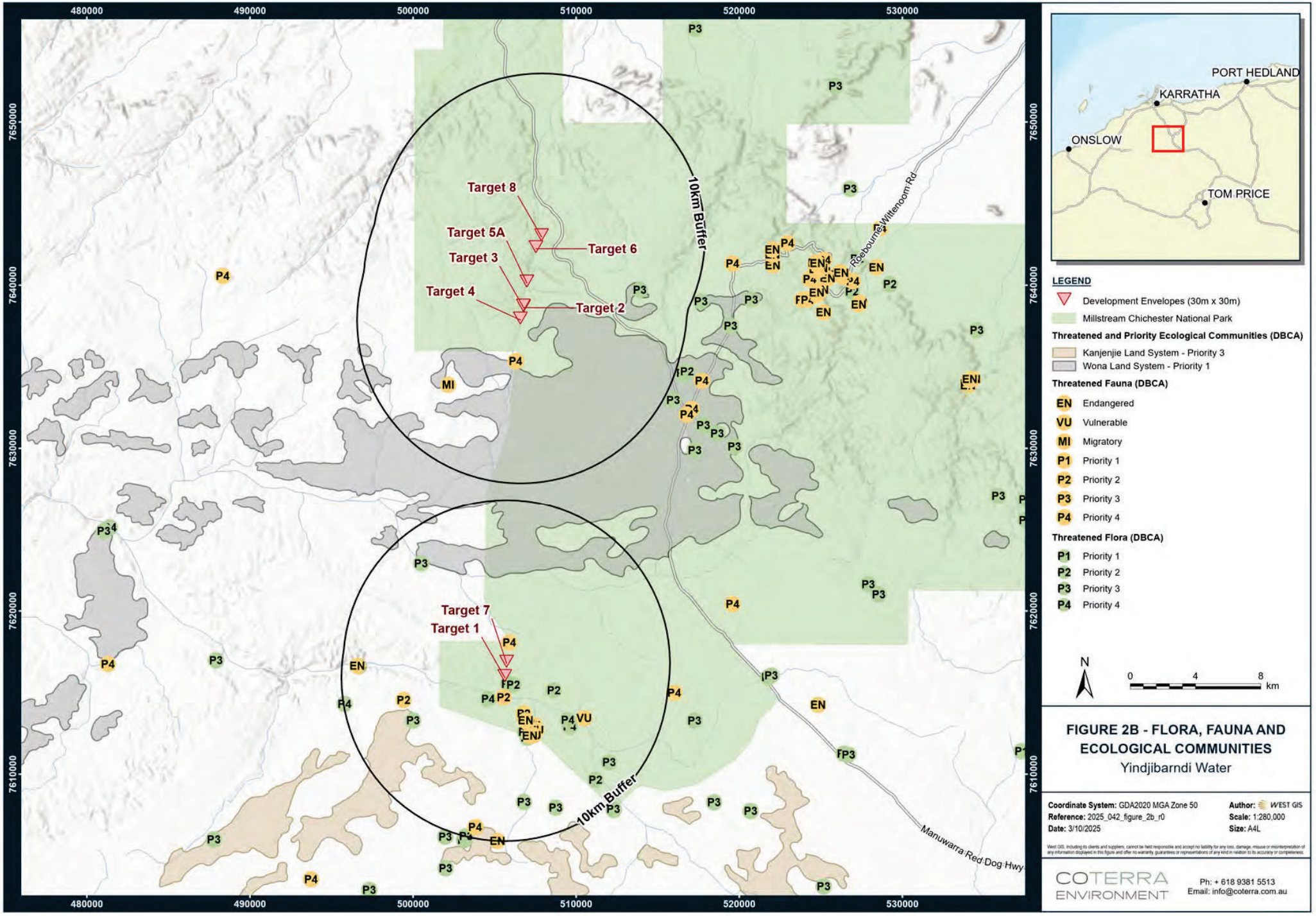

FIGURE 2B - FLORA, FAUNA AND ECOLOGICAL COMMUNITIES

Yindjibarndi Water

Coordinate System: GDA2020 MGA Zone 50
Reference: 2025_042_figure_2b_r0
Date: 3/10/2025
Author: WEST GIS
Scale: 1:280,000
Size: A4L

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