GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 11247/1
Permit Holder:	Town of Cambridge
Duration of Permit:	From 09 January 2026 to 9 January 2031

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

PART I – CLEARING AUTHORISED

1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of containing the spread of Typha sp and Azolla sp.

2. Land on which clearing is to be done

Lot 720 on Plan 21069, Floreat

3. Clearing authorised

The permit holder must not clear more than 13.6 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

PART II – MANAGEMENT CONDITIONS

4. Avoid, minimise, and reduce impacts and extent of clearing

In determining the *native vegetation* authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

(a) avoid the clearing of *native vegetation*;

(b) minimise the amount of *native vegetation* to be cleared; and

(c) reduce the impact of clearing on any environmental value.

5. Weed and dieback management

When undertaking any clearing authorised under this permit, the permit holder must take the following measures to minimise the risk of introduction and spread of *weeds* and *dieback*:

(a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;

(b) ensure that no known *dieback* or *weed*-affected soil, *mulch, fill*, or other material is brought into the area to be cleared; and

(c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

6. Directional clearing

The permit holder must:

(a) conduct clearing activities in a slow, progressive manner from towards adjacent *native vegetation*, and

(b) allow a reasonable time for fauna present within the area being cleared to move into adjacent native vegetation ahead of the clearing activity

7. Fauna Management

(a) Prior to undertaking any clearing authorised under this permit, the permit holder must inspect the area authorised to be cleared under this permit prior to works commencing and for the duration of the clearing for any native fauna that may be present.

(b) Where fauna have been identified under condition 4(a), works must cease until the fauna have escaped into adjacent habitat ahead of the clearing activity or translocated into native vegetation.

PART III - RECORD KEEPING AND REPORTING

8. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1.

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	(a) the species composition, structure, and density of the cleared area; (b) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings; (c) the date that the area was cleared; (d) the size of the area cleared (in hectares);

No.	Relevant matter	Specifications
		and (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 4; and (f) actions taken to minimise the risk of the introduction and spread of *weeds* and *dieback* in accordance with condition 5; and (g) fauna management actions undertaken in accordance with condition 6; and (h) the date(s) that chemical weed control occurred and associated wind conditions in accordance with condition 7.

9. Reporting

The permit holder must provide to the *CEO* the records required under condition 8 of this permit when requested by the *CEO*.

DEFINITIONS

In this permit, the terms in Table 2 have the meanings defined.

Table 2: Definitions

Term	Definition
CEO	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*.
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this clearing permit is subject under section 51H of the EP Act.
dieback	means the effect of *Phytophthora* species on native vegetation.
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	*Environmental Protection Act 1986* (WA)
fill	means material used to increase the ground level, or to fill a depression.
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
weeds	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or (b) published in a Department of Biodiversity, Conservation and

Term	Definition
	Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS

C Robertson
16.12.2025
2.35PM

Caron Robertson
Manager
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the Environmental Protection Act 1986

17 December 2025

Schedule 1

The boundary of the area authorised to be cleared is shown in the map below (Figure 1).

Figure 1: Map of the boundary of the area within which clearing may occur

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 11247/1
Permit type:	Purpose permit
Applicant name:	Town of Cambridge
Application received:	1 September 2025
Application area:	13.6 hectares of native vegetation
Purpose of clearing:	containing the spread of *Typha* species and *Azolla* species
Method of clearing:	Manual
Property:	Lot 720 on Plan 21069
Location (LGA area/s):	Town of Cambridge
Localities (suburb/s):	Floreat

1.2. Description of clearing activities

Application area comprises of east lake and west lake within Perry Lakes Reserve. The purpose of this clearing is to contain the spread of *Typha* sp and *Azolla* sp, to prevent negative impacts of overgrowth on the lake ecosystems. *Typha* sp. occurs in both lakes within Perry Lakes Reserve and the Town of Cambridge (the Town) will retain stands of the *Typha* for its ecological contribution to the wetland ecosystem. Ongoing removal, to prevent spreading and outcompeting other native sedges will be undertaken as required. A secondary purpose for *Typha* removal is to reduce phosphorus within the wetland system by removing what resides in the plant material.

Perry Lakes experienced an outbreak of *Azolla* sp. in 2024. The Town will remove *Azolla* sp., as required, to prevent negative impacts of overgrowth on the water quality and wetland health.

The Delegated Officer notes that there will be no change to the purpose of the application area, it will continue to be a wetland/lake system. The proposed clearing is expected to improve the environmental function and values present within the wetland system.

1.3. Decision on application

Decision:	Granted
Decision date:	16 December 2025
Decision area:	13.6 hectares of native vegetation, 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 (the Department) advertised the application for 21 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 F.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 proposed clearing will positively contribute to the wetland ecosystem.

The assessment identified that the proposed clearing will result in:

- potential removal/disturbance of habitat for conservation significant fauna species;
- clearing of vegetation within an extensively cleared landscape, although the vegetation proposed to be cleared is not considered to be a significant remnant of vegetation, and the proposed clearing will allow other native vegetation species to reinstate;
- the potential introduction and spread of weeds into adjacent vegetation, which could impact on the quality of the adjacent vegetation and its habitat values,
- the potential incidental short-term impacts to adjacent fauna and flora resulting from off target damage from use of Roundup Active (Glyphosate -based herbicide), and
- the potential to increase turbidity within the application area, however impacts are likely to be minor and short term.

After consideration of the available information, as well as the applicant's minimisation and mitigation measures (see Section 3.1), the Delegated Officer determined the proposed clearing is unlikely to have long-term adverse impacts on environmental values.

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

- avoid, minimise to reduce the impacts and extent of clearing;
- take hygiene steps to minimise the risk of the introduction and spread of weeds;
- undertake slow, progressive one directional clearing to allow fauna to move into adjacent habitat ahead of the clearing activity;
- undertake pre-clearing site inspections prior to works commencing and ongoing during works for any fauna that may be present. If found and are not able to escape into adjacent habitat, the permit holder is to cease works until the identified fauna has left the clearing area.

1.5. Site map

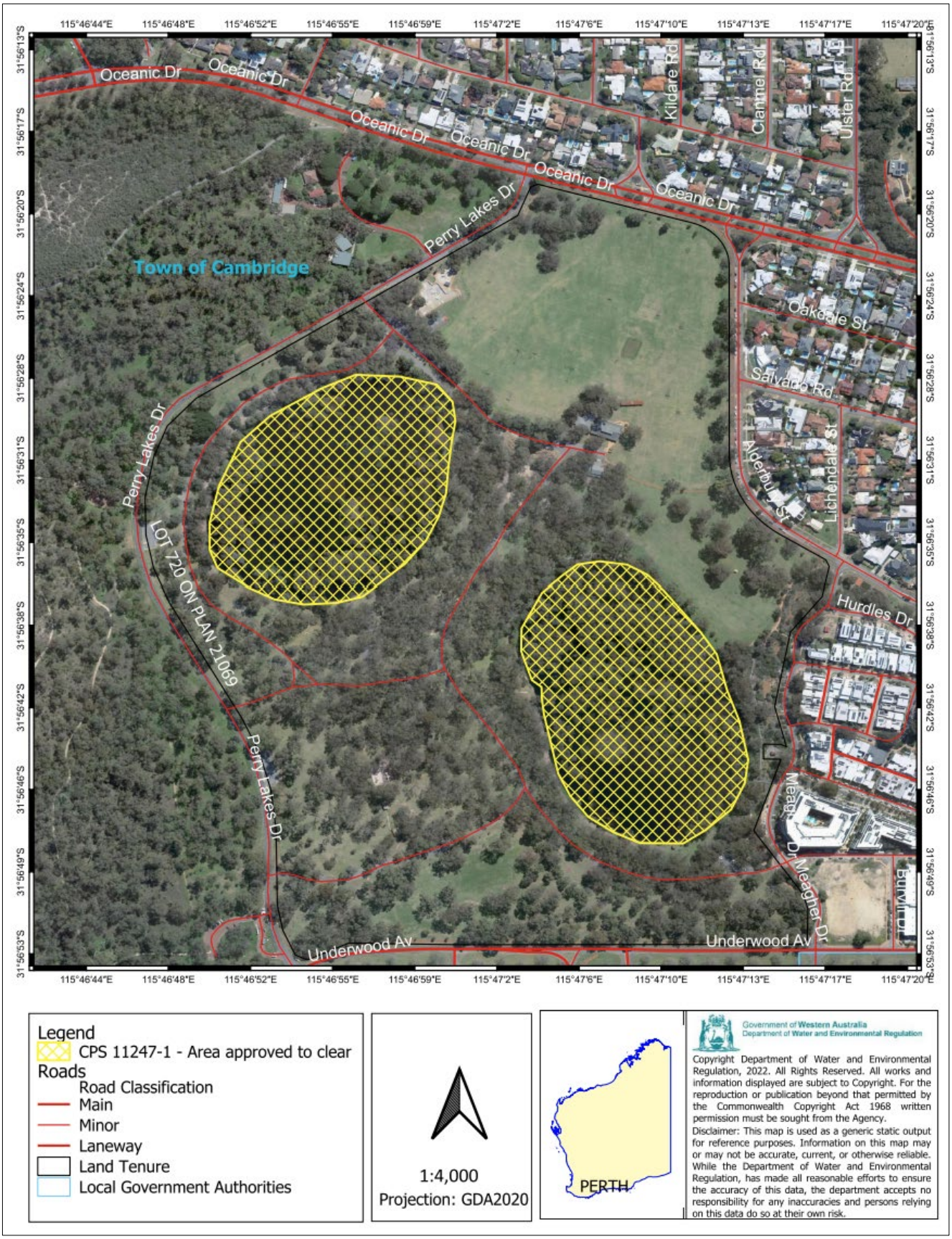

Figure 1 Map of the application area

The areas crosshatched yellow indicates the areas 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 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)

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)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

The applicant has proposed the following combination of methods to be used for *Typha* removal depending on the water level (the first option is preferred):

1. Cutting the stems at least 15 centimetres below the water line and removing the plant material above where it was cut.
2. Cutting the stems above the water, painting the cut area with a mix of Roundup Biactive (Glyphosate - based herbicide), and removing the plant material above where it was cut.
3. Wiping the leaf blades with Roundup Biactive at the rate recommended on Florabase, then cutting and removing the plant material when it dies.

Azolla species will be manual removed by scooping method (Town of Cambridge, 2025).

Applicant has proposed several management actions to manage water quality, weed and pathogens, fauna management and land degradation risks including:

- Divert water from Water Corporation's Herdsman Main Drain which currently discharges to the Indian Ocean to increase the water level of the lakes;
- Continue to undertake a water quality monitoring program as a key indicator of wetland health;
- Continue to monitor lake water levels;
- Develop management responses to address any exceedances of ANZECC trigger values;
- Continue to undertake macroinvertebrate sampling as an indicator of wetland health;
- Implement sediment control at the drainage outlets of each lake;
- Cease bore water supplementation of the east lake if the Herdsman Main Drainwater input is sufficient to maintain water levels over summer;
- Develop a nutrient and irrigation management plan (NIMP), annual reporting of leaf and soil nutrient levels, water extraction and water quality testing of ground water bores;
- Revegetate lake banks and buffers where weeds have been removed to stabilise banks and facilitate nutrient stripping and improved water clarity;
- Undertake weed mapping of the natural areas and update every five years;
- Ensure regular weed monitoring to track effectiveness;
- Undertake weed control according to Australian Pesticide and Veterinary Medical Authority (APVMA) and Department of Health guidelines;
- Develop a phytophthora management procedure;
- Convert areas of turf within lake buffers to native vegetation;
- Develop a revegetation plan for Perry Lakes to improve flora species abundance and richness within the wetlands and within the wetland buffer zone;
- Revegetate the lake beds, islands, banks and buffers to improve species diversity and wetland habitat value; and

- Develop a vegetation monitoring program to track rehabilitation success – including winter and summer photo monitoring; and undertake vegetation surveys at five-year intervals.

Further management measures can be found within the Perry Lakes Management Plan 2021-2031 (Town of Cambridge, 2021).

The applicant undertook electrofishing at the west lake with the purpose of removing over 80 percent of the adult *Cyprinus carpio* population and other introduced species (i.e. feral fish control). These species impact wetland ecosystem by increasing turbidity and phosphorus mobilisation, elevating nitrogen levels, promote algal blooms and reduce recruitment of native fish. The Delegated officer notes applicant's efforts to undertake Carp control, actions to improve water quality, and aid native species recovery.

Considering the purpose of the clearing is to improve wetland habitats, water quality and to reduce phosphorus within the wetland systems, the Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid and minimise potential impacts of the proposed clearing on environmental values.

3.2. Assessment of 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 vegetation) and land and water resources. 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 Principles (b)

Assessment

According to available databases 79 conservation significant fauna species are recorded within the local area (10-kilometre radius of the application area). Of the conservation significant fauna species recorded within the local area, the following have the potential to be found within the application area based on habitat preferences:

- *Oxyura australis* (blue-billed duck) (P4)
- *Hydromys chrysogaster* (water rat) (P4)
- *Botaurus poiciloptilus* (Australasian bittern) (EN)
- *Rostratula australis* (Australian painted snipe) (EN)

Blue-billed duck

Oxyura australis (blue-billed duck) has been recorded within the application area. Their breeding habitat is typically secluded dense vegetation with nests constructed in *Typha* beds or other vegetation in permanent water (Australian Museum, 2024). Nests are usually constructed from dead *Typha* leaves (Australian Museum, 2024). The blue-billed duck feeds on aquatic insects (Australian Museum, 2024).

Given the purpose of the clearing includes removal of *Typha*, the proposed clearing may impact breeding individuals of this species. Fauna management conditions on the permit will mitigate potential impacts to individuals of this species. Noting the foraging habits of this species, the proposed clearing is considered unlikely to impact significantly to foraging habitat of this species.

Water rat:

Hydromys chrysogaster (Water rat) largely feeds underwater on a wide range of prey including large insects, crustaceans, mussels and fishes, and even frogs, lizards, small mammals and water birds (DWER, n.d.). Although dependent on water for foraging, water rat lives on land, in burrows on low banks of rivers, lakes, wetlands, and estuaries including coastal areas and intact riparian vegetation and associated bank stability is critical to their survival. (DWER, n.d.).

While water rat has been recorded in the application area, it is noted that territory for this species can be up to four kilometres of riverbank (DWER, n.d.). Given this species habitat is not dependent on *Typha* or *Azolla* and the proposed purpose will instead improve its habitat, it is unlikely the proposed clearing will significantly impact this species. Fauna management conditions on the permit will mitigate potential impacts to individuals of this species.

Australasian Bittern:
Botaurus poiciloptilus (Australasian bittern) occurs mainly in freshwater wetlands and, rarely, in estuaries or tidal wetlands (Marchant & Higgins 1990). It often forages at the edges of pools or waterways, or from platforms or mats of vegetation over deep water. It favours permanent and seasonal freshwater habitats, particularly those dominated by sedges, rushes and reeds. Australasian bittern nests adjacent to relatively deep, densely vegetated freshwater swamps and pools, building its nests under dense cover over shallow water (DEE, 2019). The application area provides suitable habitat for Australasian bittern.

In Western Australia, the Australasian Bittern was formerly widespread in the south-west, ranging north to Moora, east to near Mount Arid, and inland possibly as far as the Toolibin Lake area. However, following range declines throughout the 1900s, it is now likely that it only occurs on the western coastal plain between Lancelin and Busselton, in the southern coastal region from Augusta to the east of Albany and inland to some wetlands in the Jarrah forest belt, with small, isolated populations in swamps from west of Esperance eastwards to near Cape Arid (TSSC, 2019).

The application area is outside the current range of Australasian bittern and is not the favourable type of wetland for this species, however it may potentially visit areas outside of its current range. Fauna management conditions on the permit will mitigate potential impacts to individuals of this species.

Australian painted snipe:
Rostratula australis (Australian painted snipe) is native to Western Australia and usually found in permanent or temporary shallow inland wetlands, either freshwater or brackish, (DAWE 2003). As perry lakes falls within the above habitat types, this species may range through the application area. However, considering the only record for Australian painted snipe in the local area is for a single individual at Herdsman Lake, dated 2002, it is unlikely this species is still present, within the local area.

Other Species:

Multiple species of migratory birds may be transient visitors to the application area. The desktop assessment identified 27 migratory species within the local area. Whilst these species may temporarily utilise the application area, it is unlikely to provide significant habitat to these migratory species due to the lack of suitable breeding habitat and the extent of clearing proposed in the context of the range of these species. Fauna management conditions on the permit will mitigate potential impacts to individuals of this species.

Zanda latirostris (Carnaby's cockatoo) and *Calyptorhynchus banksii naso* (forest red-tailed black cockatoo), have been recorded within the local area with the closest record approximately 0.02 kilometres from the application area. Black cockatoo's do not utilise *Typha* or other sedges as foraging, nesting, or roosting habitat. Given that the proposed clearing will only involve the clearing of *Typha* and *Azolla* sp., it is unlikely to impact on the habitat of black cockatoos.

Conclusion
Based on the above assessment the application area may provide breeding habitat and a source of nest building material for blue billed duck, and may also provide habitat for water rat, Australasian Bittern, Australian painted snipe and four migratory bird species.

Fauna management conditions, including requirement for fauna inspections to be undertaken prior to works commencing and ongoing during works and a requirement to undertake slow directional clearing, will minimise impacts to individuals.

The applicant will be required to obtain an authorisation from the Minister for Environment under section 40 of the Biodiversity Conservation Act 2016 obtained from the Department of Biodiversity, Conservation and Attractions (DBCA) for the translocation of any threatened fauna species. The clearing is not considered likely to negatively impact biodiversity and may improve biodiversity by allowing other flora species to reinstate within the application area.

Conditions
To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- avoidance and minimisation to reduce the impacts and extent of clearing,
- slow, progressive, one directional clearing to allow terrestrial fauna to disperse ahead of the clearing activity,
- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback to adjacent vegetation.

- undertake spraying of Glyphosate-based herbicide during the driest period of the year when the water level is at its lowest, and during calm conditions.
- pre-clearing site inspections prior to works commencing and ongoing during works for any fauna that may be present. If found and are not able to escape into adjacent habitat, the permit holder is to cease works until the identified fauna has left the clearing area.

3.2.2. Significant remnant vegetation and conservation areas - Clearing Principles (e) & (h)

Assessment

Remnant Vegetation:
The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). The application area is located within the Perth Metropolitan Region Scheme boundary, which the EPA recognises to be a constrained area, within which a minimum 10 per cent representation threshold for ecological communities is recommended (EPA, 2008).

The mapped vegetation 'Karrakatta Complex-Central and South' and 'Cottesloe Complex-Central and South' retains more than ten per cent of its pre-European extents remaining (see Appendix B.2) and is considered to be well represented within the constrained area. However, the local area retains less than ten per cent of its pre-European native vegetation cover (at 5.6 per cent) and is considered to be extensively cleared (despite being within a constrained area).

Noting the proposed clearing is to selectively remove *Typha* and *Azolla* species, the vegetation proposed to be cleared is not considered to be a significant remnant of vegetation. Furthermore, given the nature of the clearing, *Typha* removal will allow other native vegetation species to reinstate, and species diversity in the area is likely to improve. Although the proposed clearing has the potential to result in the spread of weeds and dieback, weed and dieback management practices will mitigate against potential impacts to adjacent native vegetation.

Conservation Areas:
The application area is located within Bush Forever Site 312. Given the extent of the proposed clearing, the degraded to completely degraded (Keighery, 1994) condition of native vegetation and that clearing is selectively for *Typha* and *Azolla*, the proposed clearing is unlikely to have a significant environmental impact on Bush Forever Site 312.

Given the purpose of the proposed clearing is to improve wetland habitat of Perry Lakes, it is likely to have a positive impact on the environmental values of the reserve. The proposed clearing may introduce and spread weeds and dieback into this conservation area, which could impact on its habitat quality and connectivity. A weed and dieback condition will minimise this risk.

Conclusion
Although the extent of native vegetation within the local area is less than the national objectives and targets for biodiversity conservation in Australia, the vegetation proposed to be cleared is not considered to be significant remnant of vegetation, and the proposed clearing is likely to result in an environmental benefit. For the reasons set out above, the proposed clearing is not likely to result in a significant residual impact for clearing within a Bush Forever Site.

Conditions
To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- take hygiene steps to minimise the risk of the introduction and spread of weeds and dieback to adjacent vegetation, and
- avoidance and minimisation to reduce the impacts and extent of clearing.

3.2.3. Land and water resources - Clearing Principles (f), (g), and (i)

Assessment

The proposed clearing is for the purpose of controlling the occurrence of *Typha* and *Azolla* due to its invasive growth and adverse impacts on wetlands, in the absence of management. Given the above, the proposed clearing is not likely to result in any long-term impact to the ecological values of the wetland within the application area.

Clearing may cause land degradation impacts including waterlogging, subsurface acidification, and phosphorus export. The Town has proposed several management activities (see Section 3.1; Town of Cambridge, 2021) to address the above-mentioned impacts including ongoing water quality monitoring and weed management.

The removal of *Typha* has the potential to increase sedimentation and turbidity in wetlands within the application area, thereby impacting surface water quality in the short-term. The Town has confirmed that the *Typha* roots will remain in situ and the *Azolla* will be scrapped off the surface of the water only, as such the proposed clearing will not disturb the soils at Perry Lakes and is not likely to cause long-term deterioration in the quality of surface water.

The proposed methods of removal for *Typha* and *Azolla* pose low to no risk of acid sulphate soil disturbance (DWER, 2022).

Conclusion
Based on the above assessment, the proposed clearing will not significantly impact ecological values of riparian communities or water quality of the lakes at Perry Lakes Reserve.

Conditions
To address the above impacts, the following management measures will be required as conditions on the clearing permit:

- avoidance and minimisation to reduce the impacts and extent of clearing

3.3. Relevant planning instruments and other matters

No Aboriginal sites of significance have been mapped within the application area. 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
Management activities to prevent land degradation risks	See section 3.1 and Section 3.2.3

Appendix B. Site characteristics

B.1. Site characteristics

Characteristic	Details
Local context	The proposed clearing comprises two adjacent water bodies within Perry Lakes Reserve in the municipality of the Town of Cambridge, including surrounding parkland. The application area occurs within the Perth metropolitan area situated between remnant native vegetation comprising Bold Park reserve. Spatial data indicates the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 5.69 per cent of the original native vegetation cover.
Ecological linkage	The proposed clearing does not include any significant portion of an ecological linkage.
Conservation areas	The application area is within a Bush Forever Site (site 312) and adjoins Bold Park Reserve to the west.
Vegetation description	Photographs and information supplied by the applicant indicate the vegetation within the proposed clearing area consists of *Typha* species and *Azolla* species (see Appendix E). The woodland surrounding the lakes is parkland cleared with some scattered trees. This is inconsistent with the mapped vegetation types: • Cottesloe Complex-Central and South, which is described as 'Mosaic of woodland of Eucalyptus gomphocephala (Tuart) and open forest of Eucalyptus gomphocephala (Tuart) - Eucalyptus marginata (Jarrah) - Corymbia calophylla (Marri); closed heath on the Limestone outcrops'. • Karrakatta Complex-Central and South, which is described as 'Predominantly open forest of Eucalyptus gomphocephala (Tuart) - Eucalyptus marginata (Jarrah) - Corymbia calophylla (Marri) and woodland of Eucalyptus marginata (Jarrah) - Banksia species. Agonis flexuosa (Peppermint) is co-dominant south of the Capel River'.
Vegetation condition	Aerial imagery and available information indicate the vegetation within the proposed clearing area is in degraded to completely degraded (Keighery, 1994) condition due to the extent of weed invasion and the absence of understorey species. • Degraded: Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. • 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. The full Keighery (1994) condition rating scale is provided in Appendix D. Representative photos are available in Appendix E.

Characteristic	Details
Climate	The climate is classified as Mediterranean, with dry, hot summers and cool, wet winters. The average annual rainfall is 728.2 millimetres. Maximum temperatures in summer average 30.7° Celsius while the minimum temperatures average 17.6° Celsius
Soil description	The soil is mapped as Spearwood System, which is described as 'Sand dunes and plains. Yellow deep sands, pale deep sands and yellow/brown shallow sands'.
Land degradation risk	Application area is mapped within the high to moderate risk area for Acid Sulphate Soils (ASS). Previous advice relating to this location, from DWER Contaminated sites (2022), indicate that the proposed purpose does not pose a significant risk of detrimental acid sulphate soil disturbance noting the proposed clearing does not involve excavation of sediments or soils. The mapped soils are susceptible to water logging, subsurface acidification, waterlogging and phosphorus export risk.
Waterbodies	The desktop assessment and aerial imagery indicated that the application comprises two portions of Perry Lakes, classified as wetland. The west lake is mapped as a sumpland while the east lake is mapped as a lake.
Hydrogeography	The application area falls within the Perth Groundwater Area, as proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act).
Flora	There are records of 97 conservation significant flora species within the local area (10-kilometre radius) with the closest record of priority flora species being *Eucalyptus foecunda* subsp. Foecunda, *Fabronia hampeana* and *Hibbertia leptotheca* approximately 0.4 kilometres from the application area. A review of the habitat requirements for these species indicates that they are unlikely to be present in the application area, noting it is within a wetland.
Ecological communities	While some portions of the application area are mapped as Banksia Woodlands of the Swan Coastal Plain ecological community, the vegetation present within the application area is not representative of this ecological community.
Fauna	There are records of 79 fauna of conservation significance within the local area with the closest record being of blue-billed duck (recorded within the application area) and Carnaby's cockatoo approximately 0.029 kilometres away from the application area. There are three potential black cockatoo breeding records within the local area with the closest record approximately 0.4 kilometres from the application area. 58 black cockatoo roosting records have been mapped within the local area (10 kilometre radius). Vegetation within the application area is not suitable to support black cockatoo foraging, breeding or roosting.

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*					
Swan Coastal Plain	1,501,221.93	579,813.47	38.62	222,916.97	14.85
Vegetation complex					

	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
Karrakatta Complex-Central and South**	53,080.99	12,467.20	23.49	4,282.7	8.07
Cottesloe Complex-Central and South**	45,299.61	14,567.87	32.16	6,606.12	14.58
Local area					
10km radius	30083.05425***	1713.8	5.69	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)
*** excluding water body

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: Noting that the proposed clearing will only target *Typha* sp. and *Azolla* sp., it is not anticipated that the proposed clearing will significantly impact conservation significant flora, fauna habitat or assemblages of plants, and may improve biodiversity by allowing flora species to reinstate	Not likely to be at variance	Yes *Refer to Section 3.2.1, above.*
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 may contain suitable habitat for conservation significant fauna. Given the proposed works will improve the ecosystem, the proposed clearing is unlikely to have a significant impact on fauna habitat.	May be 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: None of the threatened flora species recorded within the local are known to occur in wetland habitats. As the proposed clearing will only target *Typha* and *Azolla*, it is unlikely any conservation significant flora will be negatively impacted by the 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:	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
According to available spatial data, the area proposed to be cleared is mapped as TEC, Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region. The presence of *Typha* and *Azolla* would indicate that soil hydrological conditions within the application area and species assemblages are not representative of the above TEC. Therefore, the targeted removal of *Typha* and *Azolla* is unlikely the impact Banksia Woodland TEC.		
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 extent of vegetation in the local area falls below national objectives and targets for biodiversity conservation in Australia. However, noting the proposed clearing is to selectively remove *Typha* and *Azolla* species, the vegetation proposed to be cleared is not considered to be a significant remnant of vegetation, and the proposed clearing will allow other native vegetation species to reinstate.	At variance	Yes *Refer to Section 3.2.2, above.*
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: The application area is within a Bush Forever Site. Given the purpose of the proposed clearing is to improve wetland habitat of Perry Lakes (Town of Cambridge, 2025), it is not likely to have an impact on the environmental values of the reserve or result in a significant residual impact.	Not likely to be at variance	Yes *Refer to Section 3.2.3, above.*
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: *Typha* forms a natural component of native wetland and watercourse vegetation. *Azolla* is an aquatic invasive fern which requires an aquatic ecosystem for its sustenance, Noting the nature of the clearing, the proposed clearing is within an environment associated with a wetland. Given the nature of the proposed clearing, it is unlikely to significantly impact the wetland.	At variance	Yes *Refer to Section 3.2.4, above.*
Principle (g): *"Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."* Assessment: The mapped soils susceptible to water logging, subsurface acidification, waterlogging and phosphorus export risk. Noting the purpose of clearing, method of clearing and the proposed avoidance and mitigation measures, the proposed clearing is not likely to have an appreciable impact on land degradation.	Not likely to be at variance	Yes *Refer to Section 3.2.4, above.*
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:	May be at variance	Yes *Refer to Section 3.2.4, above.*

Assessment against the clearing principles	Variance level	Is further consideration required?
The removal of *Typha* and *Azolla* may increase water turbidity in the short term. The clearing is not likely to impact the wetland system in the short or long term.		
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: Noting the extent of clearing and that it is within a lake, the proposed clearing is unlikely to increase the likelihood, incidence or intensity of flooding in the local area.	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. Photographs of the vegetation

Figure 2: *Azolla* Bloom in Perry Lakes in 2024 (Town of Cambridge, 2025)

Figure 3: *Typha* in east lake in 2024 (Town of Cambridge, 2025)

Appendix F. Sources of information

F.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

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)

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