



GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: CPS 10828/1
 File Number: DWERT17081
 Duration of Permit: From 11 February 2026 to 11 February 2028

PERMIT HOLDER

Mr Bradley Stewart Noakes and Mr Steven Murray Noakes

LAND ON WHICH CLEARING IS TO BE DONE

Lot 1002 on Deposited Plan 419056, Forest Grove

AUTHORISED ACTIVITY

The permit holder must not clear more than 1.994 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

CONDITIONS

1. 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.

2. 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.

3. Erosion management

The permit holder must commence the dam construction activities no later than three (3) months after undertaking the authorised clearing activities to mitigate the potential for sedimentation erosion.

4. Fauna management - directional clearing

The permit holder must:

- (a) conduct *clearing* activities in a slow, progressive manner from north to south to allow fauna to move into adjacent native vegetation ahead of the clearing activity.
- (b) allow reasonable time for fauna present within the area being cleared to move into adjacent native vegetation ahead of the *clearing* activity.

5. 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	<ul style="list-style-type: none"> (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); (e) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 1; (f) actions taken to minimise the risk of the introduction and spread of <i>weeds</i> and <i>dieback</i> in accordance with condition 2; (g) actions taken in accordance with

No.	Relevant matter	Specifications
		condition 3; and (h) actions taken in accordance with condition 4.

6. Reporting

The permit holder must provide to the *CEO* the records required under condition 4 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 <i>Environmental Protection Act 1986</i> .
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 <i>Phytophthora</i> species on native vegetation.
department	means the department established under section 35 of the <i>Public Sector Management Act 1994 (WA)</i> and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
EP Act	<i>Environmental Protection Act 1986 (WA)</i>
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 <i>Biosecurity and Agriculture Management Act 2007</i> ; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS



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Caitlin Conway
Manager
NATIVE VEGETATION REGULATION

Officer delegated under Section 20
of the *Environmental Protection Act 1986*

18 January 2026

SCHEDULE 1



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



Clearing Permit Decision Report

1 Application details and outcome

1.1. Permit application details

Permit number:	CPS 10828/1
Permit type:	Area permit
Applicant name:	Mr Bradley Stewart Noakes and Mr Steven Murray Noakes
Application received:	6 November 2024
Application area:	1.994 hectares of native vegetation
Purpose of clearing:	Dam construction
Method of clearing:	Mechanical removal
Property:	Lot 1002 on Deposited Plan 419056
Location (LGA area/s):	Shire of Augusta-Margaret River
Localities (suburb/s):	Forest Grove

1.2. Description of clearing activities

The vegetation proposed to be cleared is contained within a single contiguous area (see Figure 1, Section 1.5) of up to 1.994 hectares (as revised) to extend an existing dam. The applicant has advised the Department of Water and Environmental Regulation (the department) that the existing dam is leaking and will require urgent repairs, or the dam could be compromised (Noakes and Noakes, 2024a).

The applicant previously applied to clear the same area under CPS 9395/1 and relevant details from the previous assessment have been considered in determining this clearing permit application.

1.3. Decision on application

Decision:	Granted
Decision date:	18 January 2026
Decision area:	1.28 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 advertised the application for 21 days and two submissions were received. The comments received by the submission is summarised in Appendix B. During the clearing permit assessment, the applicant increased the proposed clearing area from 1.28 hectares to 1.994 hectares. Based on this, the application was readvertised for an additional seven days. No submissions were received during this timeframe.

In making this decision, the Delegated Officer had regard for:

- the site characteristics (see Appendix C);
- relevant datasets (see Appendix G.1);

- the finding of two white bellied frog surveys (Harewood, 2024 and Ottelia Ecology, 2024);
- photographs provided by the applicant under clearing permit CPS 9395/1 (Noakes and Noakes, 2021);
- land degradation assessment report prepared by the Department of Primary Industries and Rural Development (DPIRD) (Commissioner of Soil and Land Conservation (CSLC), 2021);
- expert scientific advice received from the Department of Biodiversity Conservation and Attractions (DBCA) (DBCA, 2024; DBCA, 2025);
- advice received from the Shire of Augusta-Margaret River (Shire of Augusta-Margaret River, 2025);
- advice received from DWER regarding approvals under the *Rights in Water and Irrigation Act 1914* (RIWI Act) (DWER, 2025);
- clearing principles set out in Schedule 5 of the EP Act (see Appendix D); and
- relevant planning instruments and any other matters considered relevant to the assessment (see Section 3).

In addition to the above, the Delegated Officer also took into consideration the necessity and purpose of the proposed clearing which includes (Noakes and Noakes, 2024b):

- The applicants operate a dairy business, and there is currently 125 hectares of irrigated pasture that provides feed for dairy cows and beef stock. There is a current shortfall of water to enable all areas of pasture to be irrigated during summer months, meaning certain paddocks and irrigation infrastructure need to be turned off to avoid exceeding the licensed water entitlements.
- The applicant has advised that this constraint forces the purchase of additional feed, sell livestock, or arrange agistment (temporary relocation of stock to other properties).
- The existing dam wall is leaking and requires stabilisation, as water loss is adversely affecting current irrigation practices. However, the dam cannot be removed or repaired until the downstream dam is constructed, as this infrastructure is essential for irrigating pasture to maintain effective dairy operations and avoid the need to transport large quantities of supplementary feed to the site.
- The applicant proposes increasing irrigated pasture to 130 hectares and installing two new centre pivot irrigation systems to improve water-use efficiency and reduce labour requirements (clearing for these centre pivots is assessed in CPS 10776/1). Maximising year-round on-farm pasture production will minimise reliance on purchased feed, thereby lowering operational costs and reducing carbon emissions associated with feed transport (food miles).
- The proposed irrigation requirement for 130 hectares of pasture is approximately 975,000 kilolitres, which exceeds the property's current water allocation. To meet this demand, the client proposes constructing a new downstream dam with a storage capacity of 105,280 kilolitres, as well as deepening and repairing the existing dam.

The assessment identified that the proposed clearing will result in:

- 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 loss of potential habitat for quokka and quenda, although this habitat is unlikely to be significant for these species;
- potential for impacts to water quality downstream, however these are likely to be managed to an appropriate extent through the mitigation measures conditioned on the applicant's development approval; and
- removal of riparian vegetation, however noting its condition and that it is unlikely to support significant habitat for conservation significant fauna, flora or ecological communities, the removal of this riparian vegetation is considered unlikely to have significant environmental impacts.

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 terrestrial fauna to move into adjacent habitat ahead of the clearing activity; and
- commencement of the dam construction within three months of clearing.

1.5. Site map



Figure 1 Map of the application area

The area crosshatched yellow indicate the area authorised to be cleared under the granted clearing permit.

2 Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (Clearing Regulations).

In addition to the matters considered in accordance with section 51O of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the 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)
- *Conservation and Land Management Act 1984 (WA)* (CALM Act)
- *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* (EPBC Act)
- *Soil and Land Conservation Act 1945 (WA)*

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)
- Technical guidance – *Flora and Vegetation Surveys for Environmental Impact Assessment* (EPA, 2016)
- Technical guidance – *Terrestrial Fauna Surveys for Environmental Impact Assessment* (EPA, 2016)

3 Detailed assessment of application

3.1. Avoidance and mitigation measures

The applicant has advised that the dam was placed to minimise the proposed clearing area (Noakes and Noakes, 2024a).

Supporting information provided with the application (SW Hydrology, 2024) also described the following sediment control measures that will occur during dam construction:

- The proposed dam development will be limited to the months December – May, prior to any modelled overland flow occurring.
- During dam construction topsoil will be removed and stockpiled outside the full supply level (FSL) so it can be respread around the sides of the dam above FSL to aid in revegetation post dam development.
- The existing dam will be retained while the downstream dam is being constructed, therefore any flow events associated with summer thunderstorms and early frontal activity will be captured by this dam, preventing any flows entering the work site.
- If summer thunderstorms with more than 20mm of rainfall are forecast, hay will be laid around the downstream base of any stockpiled material to prevent sediment mobilisation into the work site. The proposed dam wall will be another containment barrier for any sediment mobilisation downstream.

As a condition of their Development Approval (Shire of Augusta Margaret River, 2025b), the applicant will be required to prepare and implement a Sediment Management Plan, which is relevant to the dam construction and associated clearing. The Sediment Management Plan will have the aim of avoiding sediment/stormwater runoff impacts upon downstream Chapman Brook and associated native vegetation and critically endangered fauna. The approved Sediment Management Plan will include design details of the following control measures, but not limited to:

- Use of hay bales, sediment fencing, coir logs and the like.
- Sediment detention basins.
- Other industry approved methods.

Revegetation will occur around the western and eastern boundaries of new dam as a condition of the Development Approval (Shire of Augusta-Margaret River, 2025b) to ensure that no erosion impacts occur from the proposed works. This revegetation will be undertaken in accordance with a revegetation plan (SW Hydrology, 2025) which has been approved by the Shire of Augusta-Margaret River. This revegetation, along with some revegetation around the existing dam, has also been conditioned under CPS 10776/1. The revegetation will entail:

- Planting of the following species, as shown in Figure 2 below:
 - reeds and sedges (*Juncus pallidus*, *Ficinia nodosa* and *Microlaena stipoides*) approximately 0.5-1.5 metres around the Full Supply Level (FSL) level of the dam

- o an 8 metre wide buffer of shrubs (*Kunzea recurva*, *Myoporum oppositifolium*, *Podocarpus drouynianus*, *Banksia sessilis*, *Hakea trifurcata*, *Bossiaea aquifolium*, *Melaleuca huegelii* and *Taxandria linearifolia*), behind the reeds and sedges; and
- o jarrah and marri 10 metres from the FSL. Jarrah/Marri will be purchased with 25L grow bags to improve survival rate by not having to compete for sunlight with shrubs that can grow quicker than Jarrah/Marri.
- Herbicide weed control four to six weeks prior to planting;
- Ploughing of the revegetation area to break up the soil and create furrows to assist with planting the seedlings;
- Fencing of the revegetation area to prevent stock access and limit grazing of seedlings by kangaroos.
- Placing mulch created from the clearing of CPS 10776/1 around the seedlings to retain soil moisture and minimise weed re-growth.
- Installing tree-guards round all plantings to reduce impacts of wind stress and inadvertent grazing by rabbits and any other fauna that get into the revegetation area.

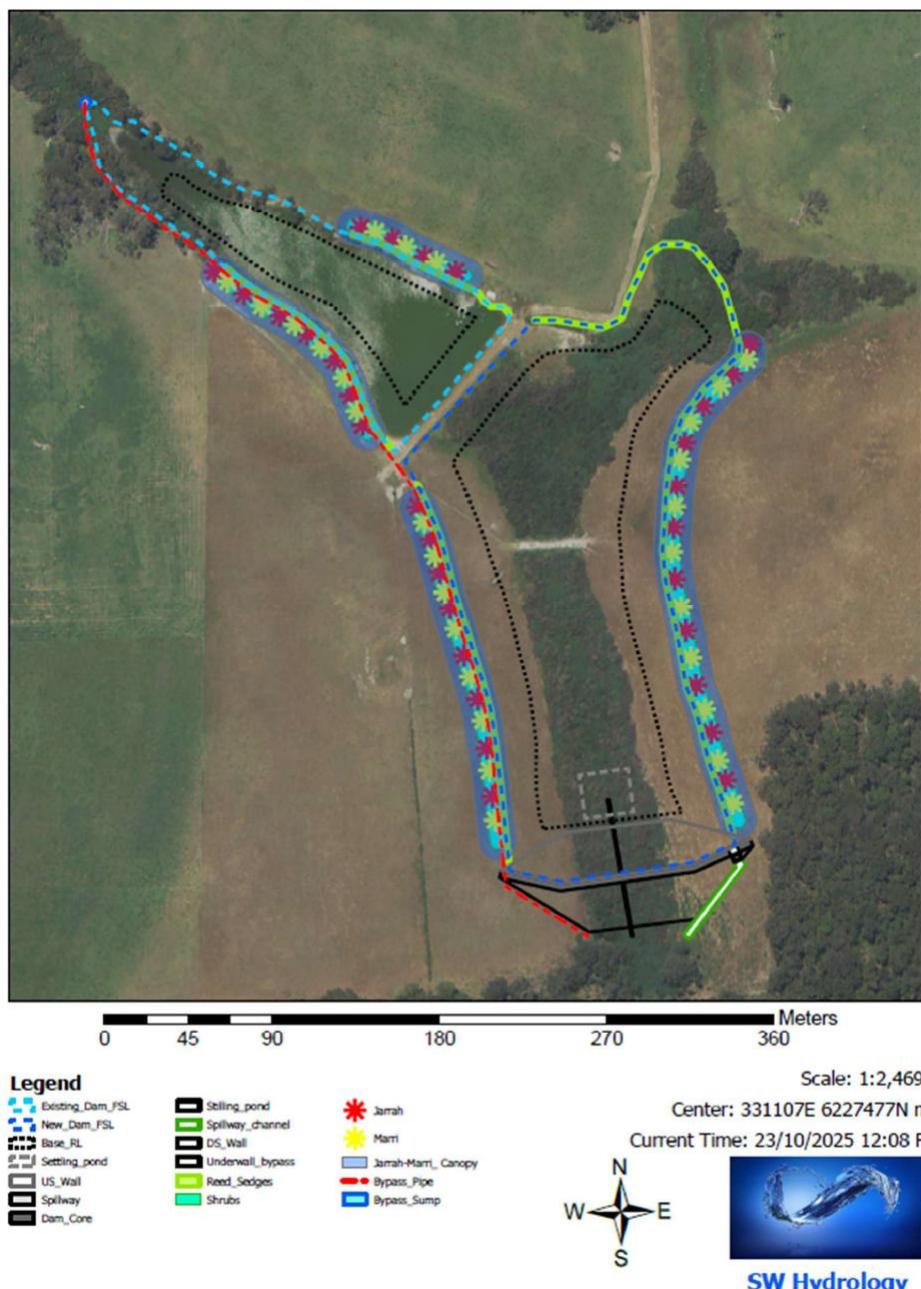


Figure 2. Map of the revegetation around the existing dam and dam extension conditioned under the Development Approval, showing locations of different vegetation types to be planted.

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

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix C) 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 D) identified that the impacts of the proposed clearing present a risk to biological values (fauna habitat) 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

The desktop assessment identified 40 conservation significant fauna species within the local area, which include 15 mammals, 19 birds, two amphibians, two fish and two invertebrates. The majority of the records identified from the local area are *Pseudochirus occidentalis* (western ringtail possum). In determining the likelihood of occurrence of these species within the application area, the species preferred habitat attributes were considered. Based on this assessment, only the *Anstisia alba* (white-bellied frog), *Setonix brachyurus* (quokka), *Isoodon fusciventer* (quenda) were considered as possible to occur within the application area.

Migratory birds identified through the desktop assessment are associated with mudflats, freshwater wetlands, saltmarshes and mangroves. Noting the watercourse within the application area is seasonal, and that it is likely to have low soil moisture (Ottelia Ecology, 2025) is unlikely to contain habitat for these migratory birds. For these reasons it is also considered unlikely to provide habitat for water-rat, western dwarf galaxias, pouched lamprey, Carter's freshwater mussel and Dunsborough burrowing crayfish.

Following the above considerations, the department has undertaken further review regarding the White-bellied Frog and the Western Ringtail Possum (WRP), as outlined below

White-bellied frog

Anstisia alba (formerly *Geocrinia alba*) (white-bellied frog) is a small, critically endangered frog found in the southwest of Western Australia. Available datasets show the nearest record of this species is 0.11 kilometres from the application area, with 128 records within the local area.

The habitat of the white-bellied frog is described as swampy flows along drainage depressions and is typically associated with dense overstorey vegetation dominated by *Homalospermum firmum*, *Taxandria linearifolia* (Swamp Peppermint), *Astartea fascicularis* (False Baeckea), and a dense ground layer of rhizomatous vegetation, usually composed of *Taraxis* sp., *Loxocarya* sp. and *Tetrarrhena laevis* (forest ricegrass) (DPAW, 2015). The white-bellied frog's specific habitat requirements means that it has a highly restricted distribution, with the combined occupied habitat patches totalling to approximately 1.9-kilometre square (DPAW, 2015). This is largely due to extensive clearing of the species' habitat for agricultural uses.

The Recovery Plan for the white-bellied frog (DPAW, 2015) states that critical habitat is anything that is considered to provide suitable hydrology, vegetation structure, and protection from threats, even if the species is not present within it. Unoccupied habitat that may facilitate movement of the species between populations, or other unoccupied habitat is also considered to be necessary for the survival of the frog for genetic exchange (Conroy, S. D. S., 2001). Male, white-bellied frogs will generally call during the breeding period which is September to November. Breeding sites are typically associated with sandy soils with dense overstorey vegetation and a dense ground layer of rhizomatous vegetation (Conroy, 2001).

Anstisia alba occurs in a limited distribution south of Margaret River with an extent of occurrence calculated at 130 square kilometres, but an area of occupancy of less than 2 square kilometres, with the majority of its range (77 per cent) on private properties with a distribution centred approximately in the vicinity of the application area (DBCA, 2024).

According to the department's findings, six records of *Geocrinia alba* have been identified within one kilometre of the application area and three records have been made within the watercourse proposed for the dam, 490 metres upstream from the application area. The application area is within the range of the species with records in the vicinity

both upstream and downstream of the application area. The application area includes a watercourse within a mapped soil type (Treeton wet valley Phase. Map Unit 214ThTRvw) and vegetation structure (dense overstorey vegetation) consistent with habitat requirements. The native vegetation of the watercourse proposed for clearing is contiguous with native vegetation associated with watercourses upstream originating in Forest Grove National Park where the species occurs, and there is a reasonable probability that the species, of the species habitat, occurs in the application area.

Further to the above, DBCA (2024) has advised that DBCA's regional office has conducted regular monitoring programs for this species and has recorded three occurrences of this species within Lot 1002. According to DBCA, the previous two surveys that were conducted in 2009 and 2011 by DBCA did not detect the *Anstisia alba*. However, given that previous locally extinct populations had been rediscovered or natural been re-established at a later time, suggests that the absence of the species during few surveys does not suggest the species no longer exist on site. Therefore, DBCA recommended that further surveys are required to confirm the presence/absence of this species. DBCA also noted that the previous survey period overlaps with the species breeding season and lacked information about the weather, time and air temperature, and that daytime surveys alone are not adequate to detect this species. An evening survey (warm still evening), with the surveyor present on site (not only the ARU units), is required to detect calling males (DBCA, 2024).

In response to DBCA's 2024 advice, the applicant engaged Ottelia Ecology (2024) to conduct an additional survey for the white belied frog. The findings indicate that the site is unlikely to support permanently moist habitats, even where vegetation cover appears suitable. Although areas immediately downstream of the dam and the lowest flat section may retain some summer moisture due to dam wall leakage and controlled releases, these locations are highly degraded (Ottelia Ecology, 2024). Consequently, the application area was not considered suitable habitat for *Anstisia alba*. While regional soil mapping corresponds with the species' broader distribution, the site primarily consists of sandy-loam slopes with drying soils, rather than the sandy alluvial soils typically associated with *Anstisia alba* habitat.

Vegetation at the site features a dense overstorey of *Taxandria linearifolia*, which is consistent with known *Anstisia alba* habitat; however, it lacks the typical dense groundcover of *rhizomatous Restionaceae* that usually indicates suitable conditions. This absence likely reflects inadequate soil moisture. While the blackberry infestation does not completely rule out the site as potential habitat for the *Anstisia alba*, the apparent lack of permanently moist conditions required for successful breeding significantly diminishes its suitability. Additionally, the repeated observation of a feral cat both upstream and downstream poses an added threat to native fauna within the application area.

Upon receiving the new information from Ottelia Ecology's 2024 survey, the department sought further advice from DBCA (2025), providing the updated frog survey for review. DBCA advised that the methodology applied in the revised fauna report is adequate to confirm that no extant *Anstisia alba* populations is likely to occur within the application area. DBCA (2025) further concurred that the application area is unlikely to provide suitable habitat for *Anstisia alba* at this time.

While the application area is not considered suitable habitat for this species, DBCA (2025) has recommended implementing measures to mitigate erosion, sedimentation, and water pollution during construction. With these measures in place, the dam's construction is unlikely to significantly impact nearby populations. The department notes that the Development Approval issued by the Shire of Augusta-Margaret River (2025b) includes conditions requiring a sedimentation management plan and controls for managing runoff into downstream watercourses.

Western ringtail possum

Based on available datasets there are 127 records of *Pseudocheirus occidentalis* (western ringtail possum (WRP) in the local area, the nearest being 0.99 km from the proposed clearing.

The application area is located outside the three key management zones for WRP identified by DPaw (2014) based upon core areas of the known current distribution of the species. The application area is therefore located outside of areas mapped as suitable WRP habitat. WRP is an arboreal folivore, associated with long unburnt mature remnant peppermint woodlands along the Swan Coastal Plain management zone from Mandurah to Augusta, characterised by high canopy cover and connectivity (DPAW, 2017). The vegetation present within the application area lacks suitable vegetation structure and preferred foraging species to support this species. It is also considered that because this area is highly infested with blackberries, it is unlikely that the WRP would utilise this area to move across the landscape.

In addition to the above, the proposed clearing is adjacent to large areas of vegetation that are more likely to contain habitat that support this species and therefore, given the lack of suitable habitat features, the small size of the application, and its proximity to suitable habitat it is not likely the proposed clearing would have a significant impact on the western ringtail possum.

Quokka

The application area is within the range of the southern forest quokka subpopulation (DEC, 2013). Quokka in this subpopulation are known to occupy a range of forest, woodland and wetland ecotypes, with the most commonly occupied sites comprising jarrah, marri, karri or tingle forest and riparian habitats with a sedge dominated understorey (DEC, 2013). Noting riparian habitats are preferred by the quokka, and that other quokka subpopulations are known to inhabit *Taxandria linearifolia* swamps, it is possible that the application area may provide habitat for quokka. However noting the lack of a sedge layer, the degraded condition of the vegetation, the blackberry infestation present, that feral cats have been observed within the application area (Ottelia Ecology, 2024) and the ecological corridor associated with this watercourse has already been severed by the existing dam upstream, the application area is not considered to be significant habitat for quokka. Fauna management measures have been conditioned on the permit to prevent impacts to any quokka individuals that may be present.

Quenda

Quenda live in dense understorey such as around swamps or in banksia and jarrah woodlands (DBCA, 2017). While quenda may reside in the application area, given the extent of the application area in the context of the range of this species, as well as the degraded condition of the vegetation, the application area is not considered to provide significant habitat for quenda. Fauna management measures have been conditioned on the permit to prevent impacts to any quenda individuals that may be present.

Conclusion

Based on the above assessment, the proposed clearing is unlikely to provide suitable habitat for White-bellied Frog (*Anstisia alba*) and the Western Ringtail Possum (*Pseudochirus occidentalis*), but may contain habitat for quokka and quenda, although this habitat is unlikely to be significant.

Conditions

Undertake slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity.

3.2.2. Land and water resources - Clearing Principles (f and g)

Assessment

Water quality and watercourse ecological values

A natural, non-perennial minor river is mapped within the application area, meaning the proposed clearing will include removal of native vegetation along the watercourse. Clearing riparian vegetation may destabilize soils on the bed and banks, potentially increasing sediment and nutrient transport and degrading downstream water quality. Water quality and hydrology within the application area is expected to change anyway as a result of the dam construction, however there is a potential risk of localized sedimentation or turbidity impacts on water quality directly downstream as a result of earthworks associated with dam construction (DWER, 2023). These impacts, however, are expected to be effectively managed through the implementation of best-practice strategies including rehabilitation of disturbed areas and stabilization techniques for the dam structure (DWER, 2023). Noting the applicant is required to implement a Sedimentation Management Plan prior to commencing works, which will include these management measures, the act of clearing of vegetation within the application area is not expected to have a significant impact to downstream water quality.

As part of the Development Approval requirements, the applicant must prepare a Sedimentation Management Plan prior to commencing works (Shire of Augusta Margaret River, 2025b). This plan should specifically address strategies to prevent sediment and stormwater runoff from impacting downstream watercourses, particularly Chapman Brook.

Riparian vegetation acts as a buffer for waterbodies from impacts to water quality caused by surrounding landuses, including from fertilisers, chemicals and animal waste. It is noted that the removal of the riparian vegetation in the application area may therefore have the potential to expose the dam within the application area to these potential pollutants in the long term. The proposed revegetation and fencing that is required to be implemented as a condition of the Development Approval (refer to Section 3.1 above) and described in the revegetation plan approved by the

Shire of Augusta Margaret River (SW Hydrology, 2025) will reinstate a vegetative buffer around the dam and limit the impacts to water quality within the dam, and downstream, from the surrounding land use.

Noting the condition of the vegetation and blackberry infestation within the application area, that it is not expected to provide significant habitat for conservation significant fauna and is unlikely to contain conservation significant flora or ecological communities, the watercourse and riparian vegetation within the application area are not expected to hold significant ecological value.

Land degradation

The application area is mapped within two soil landscape unit Treeton wet valley Phase (214ThTRvw), described as broad u-shaped drainage depressions with swampy floors (DPIRD, 2019).

Given the purpose of the clearing is for the construction of a dam, the department sought advice from DPIRD. CSLC advised that (CSLC, 2021):

- The likelihood of the proposed clearing causing wind erosion is low.
- Based on the soil type within the application area and the planned operations, the proposed clearing is not likely to increase the risk of water erosion.
- Salinity was not observed on the property or in the surroundings. The risk of salinity causing land degradation is low.
- Based on the nature of the proposed clearing, it is not likely that the removal of native vegetation will contribute to flooding.

Noting the above, the proposed clearing is unlikely to result in significant impacts from land degradation.

Conclusion

Given the degraded condition of the vegetation (Keighery, 1994) and the surrounding agricultural landscape, the proposed clearing is unlikely to have a significant impact on riparian systems. Considering the small scale of the clearing and the application of standard design and construction methodologies, it is also unlikely to result in deterioration of surface or groundwater quality. However, if the cleared area is left exposed, there remains a risk of sediment runoff impacting downstream environments.

Condition

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

- Commencement of dam construction no later than three months after undertaking the proposed clearing.
-

3.3. Relevant planning instruments and other matters

Background

This clearing permit application relates to Clearing Permit CPS 10776/1, which proposes the expansion of irrigation pivots to support increased milk production. The property currently maintains 125 hectares of irrigated pasture, supplied by water from an existing 27,490 kilolitre gully wall dam and two licensed groundwater bores under Groundwater Licence (GWL) 170610. This licence authorises the abstraction of 725,000 kilolitres from the Blackwood, Rosa-Beenup, and Perth-Lesueur Sandstone South aquifers. When dam reserves are depleted, water is pumped from the bores back into the dam to supply the irrigation system. However, the current storage capacity provides less than two days of backup for irrigation demand (Noakes and Noakes, 2024b).

With existing water supplies and an irrigation requirement of 7,500 kilolitres per hectare, the property faces a shortfall of approximately 185,010 kilolitres. This deficit necessitates shutting down irrigation systems during summer to remain within licensed entitlements, resulting in reliance on supplementary feed, stock reduction, or agistment. Furthermore, the existing dam wall is leaking and will require repair or replacement following construction of the new dam (Noakes and Noakes, 2024b).

Table 1: existing water supplied and irrigation shortfall.

Existing Water Supplies	
Bores (kL)	725,000
Dam (kL)	27,490
Total (kL)	752,490
Water Demand (kL)	937,500
Shortfall (kL)	-185,010

This clearing permit application has been submitted to support the client's proposal to expand the irrigated pasture area slightly from 125 hectares to 130 hectares in order to maintain adequate feed for dairy cows and meet optimal milk production targets. The projected water demand for 130 hectares of pasture is approximately 975,000 kilolitres, which exceeds the property's current water supply capacity.

Table 2: Proposed water supplies and irrigation demand.

Proposed Water Supplies	
Bores (kL)	725,000
Dam (kL)	97,023
Total (kL)	822,023
Water Demand (kL)	975,000
Shortfall (kL)	-152,977

To meet the increased irrigation demand, the applicant proposes constructing a new dam with an estimated storage capacity of approximately 58,585 kilolitres downstream of the existing dam, as well as deepening and repairing the current dam to enhance its functionality. The applicant has also indicated that discussions have taken place with a neighbouring property regarding the potential lease of a portion of the neighbour's licensed water entitlement to help meet the projected water requirements.

Table 3: Proposed dam specifications.

Dam Dimensions - New	
Surface Area (m ²)	17,890
Wall Length	130
Wall Height	7.6
Dam Depth	9
Tailwater	190
Volume (kL)	58,585

Dam Dimensions - Existing	
Surface Area (m ²)	12,517
Wall Length	120
Wall Height	5
Dam Depth	7
Tailwater	260
Volume (kL)	38,438

Development approval

The Shire of Augusta-Margaret River (the Shire) advised the department that local government approvals are required for the construction of the dam (Shire of Augusta Margaret River, 2025a). On 23 December 2025, the Shire granted a Development Approval for a dam subject to conditions, including the following conditions related to managing impacts to native vegetation (Shire of Augusta-Margaret River, 2025b):

- undertaking steps to minimise the risk of erosion;
- sedimentation erosion management including the submission of a Sedimentation Management Plan to the Shire;
- management actions to minimise the risk of introduction and spread of dieback and weeds;
- revegetation requirements including the submission of a revegetation plan to the Shire; and
- requirements to comply with the EP Act.

Approval under the RiWI Act

The application area falls within the Blackwood Groundwater Area and Lower Blackwood River Surface Water Area, as proclaimed under the *Rights in Water and Irrigation Act 1914* (RiWI Act). There is a watercourse mapped within the application area. Given the proposed activities will obstruct, interfere with the waters, bed or banks of the watercourse a s17 permit under the RiWI Act is also required.

The applicant has submitted a surface water application for the proposed dam and for a bed and banks permit to interfere. DWER's water licencing have accepted the proposed dam designs and has proposed to approve a licence and permit provided that a Clearing Permit and Development Approval are obtained (DWER, 2024). Noting this, the

Delegated Officer was satisfied that the outstanding water licences were not a significant barrier to granting the clearing permit in this instance.

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
White bellied frog survey (Harewood, 2024)	The applicant commissioned the Zoologist, Greg Harewood to undertake a targeted, white-bellied frog survey. The survey comprised of a three month long acoustic call survey targeting the white bellied frog. The survey also included a series of daytime reconnaissance surveys.
Photographs provided by the applicant (Noakes and Noakes, 2021b)	The applicant has provided photographs of the application area as part of the clearing permit application.
White-bellied Frog – <i>Anstisia alba</i> Targeted Survey (Ottelia Ecology, 2024)	This report presents the findings of a targeted survey conducted for the critically endangered White bellied Frog (<i>Anstisia alba</i>) within a proposed dam construction site at Lot 1002 Warner Glen Road, Forest Grove. The survey aimed to assess the presence or absence of the species and evaluate habitat suitability to support clearing permit application for the dam construction.

Appendix B. Details of public submissions

Summary of comments	Consideration of comment
applicant provided relevant and well-considered information.	noted
The proposed area has been reduced from 3.7ha to 1.28ha so that the two areas with identified black cockatoo foraging and with future breeding trees will remain.	A separate clearing permit application has been submitted for the two areas that contains black cockatoo foraging habitat.
Even though a relatively small area, the assessment of potential impact has been well considered.	noted
There is a proposal to remove the blackberry infestation. This will provide both landholder and environmental benefits so it should become a commitment to do so.	noted
The application would be improved if it included an assessment of 'net habitat gain at a landscape scale'	Revegetation around the dam is a requirement under the Development Approval. These revegetation activities will also be addressed through conditions on a separate clearing permit submitted by the same applicant for the installation of irrigation pivots on the property.
Cockatoo foraging habitat should not be removed.	No black cockatoo habitat has been identified within the application area. The black cockatoo habitat assessment previously undertaken was associated with Clearing Permit CPS 9395/1, which was later withdrawn. The applicant has now applied solely for the dam construction, using the same supporting documentation originally provided for CPS 9395/1.

Summary of comments	Consideration of comment
Local species populations are likely to be reduced or eliminated as a result.	Please see section 3.2.2 regarding impacts on fauna species.
Offsets should be conditioned on the clearing permit if granted	The department assessment against the 10 clearing principles did not identify any significant residual impacts resulting from the proposed clearing. Hence, offsets were not requested from the applicant.

Appendix C. Site characteristics

C.1. Site characteristics

The information provided below describes the key characteristics of the area proposed to be cleared and is based on the best information available to the department at the time of this assessment. This information was used to inform the assessment of the clearing against the Clearing Principles, contained in Appendix D.

Characteristic	Details
Local context	<p>The area proposed to be cleared is 1.994-hectare isolated patch of native vegetation in the extensive land use zone of Western Australia. Lot 1002 is located adjacent to Forest Grove Nature reserve.</p> <p>Aerial imagery and spatial data indicate the local area (10-kilometre radius from the centre of the area proposed to be cleared) retains approximately 52.6 per cent of the original native vegetation cover.</p>
Ecological linkage	<p>A South West Regional Ecological Linkage is located approximately 50 metres east from the application area within Lot 2760 and 640 m south of the application area within Lot 1002.</p>
Conservation areas	<p>Chapman Brook National Park nature reserve is located approximately 280 metres to the south of the application area.</p>
Vegetation description	<p>Photographs supplied by the applicant (Noakes and Noakes, 2021b) and the fauna surveys (Harewood, 2024 and Ottelia Ecology, 2024) indicate the vegetation within the proposed clearing area consists of the remnant vegetation in the site is typically dominated by swamp peppermint (<i>Taxandria linearifolia</i>) along the drainage line with blackberry growing densely on both sides. <i>Gastrolobium ebracteolatum</i> is also common along the main channel, particularly in wetter areas, Native rhizomatous rushes are limited to patchy occurrence of <i>Juncus pallidus</i>. Limited accessible parts of the drainage line had understory of pasture grasses. According to the survey by Harewood (2024), no trees were identified within the application area.</p> <p>This is inconsistent with the mapped vegetation type:</p> <ul style="list-style-type: none"> Blackwood Plateau and Plain (ID: 273) described as open Forest of <i>Eucalyptus patens</i>-<i>Corymbia calophylla</i>-<i>Eucalyptus marginata</i> subsp. <i>marginata</i> on lower slopes and on floors of minor valleys in the perhumid zone. <p>The mapped vegetation type retains approximately 33 per cent of the original extent (Government of Western Australia, 2019).</p>
Vegetation condition	<p>Photographs supplied by the applicant (Noakes. B.S and Noakes. S.M, 2021b) and the fauna surveys (Harewood, 2024 and Ottelia Ecology, 2024) indicate the vegetation within the proposed clearing area is in degraded condition (Keighery, 1994)</p> <p>The full Keighery (1994) condition rating scale is provided in Appendix E.</p> <p>Representative photos and the full survey descriptions and mapping are available in Appendix F.</p>

Characteristic	Details
Climate and landform	The property is situated near the 1050-millimetre rainfall isohyet (CSLC, 2021). The application area is located within the Treeton wet valley phase soils landscaping mapping.
Soil description	The proposed clearing areas fall within Treeton wet valley Phase (214ThTRvw) which is described as broad U-shaped drainage depressions with swampy floors.
Land degradation risk	The land degradation table C.5. below outlines the land degradation risk levels for the Treeton hillslopes Phase.
Waterbodies	The desktop assessment and aerial imagery indicates that watercourses transect the application area. This is a non-perennial minor river that does not flow all year around.
Hydrogeography	The application area falls within the Donnybrook hydrological zone of Western Australia and the Hardy Estuary Blackwood River hydrographic catchment. The application area is located within the Lower Blackwood River Surface Water Area and the Blackwood Groundwater Area proclaimed under the RiWI Act (DWER-037).
Flora	There are records of two threatened and 20 priority flora species within the local area, the closest of which to the application area is <i>Actinotus repens</i> (Priority 3) located approximately 2 kilometres southwest of the application area.
Ecological communities	The application area does not intersect any mapped Priority or Threatened Ecological Communities. A TEC Aquatic Root Mat Community Number 3 of Caves of the Leeuwin Naturaliste Ridge (Kudjal Yolgah and Budjur Mar Caves) has been mapped approximately 9.3 kilometres southwest of the application area.
Fauna	The desktop assessment identified 40 conservation significant fauna species within the local area, which include 15 mammals, 19 birds, two amphibians, two fish and two invertebrates within the local area. The closest species recorded to the application area is <i>Calyptorhynchus latirostris</i> (Carnaby's cockatoo), approximately 320 metres northwest of the application area.

C.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*					
Jarrah Forest (JAH)	4,506,660	2,399,838	53.3	1,673,614	69.74
SWF vegetation complex:					
SWF ID: 273	8,676	2,927	33.7	1,747	20.14
Local area					
10km radius	32,283	16,994	52.6	-	-

*Government of Western Australia (2019a)

**Government of Western Australia (2019b)

C.3. Fauna analysis table

With consideration for the site characteristics set out above, relevant datasets (see Appendix G.1), and biological survey information (Harewood, 2024 and Ottella Ecology, 2024), impacts to the following conservation significant fauna required further consideration.

Species scientific name	Species common name	Conservation status	Number of known records (total)	Distance of closest record to application area (km)	Are surveys adequate to identify? [Y, N, N/A]
<i>Anstisia alba</i>	white-bellied frog	CR	128	0.11	N
<i>Phascogale tapoatafa wambenger</i>	western ringtail possum	CR	127	0.99	Y
<i>Setonix brachyurus</i>	quokka	VU	1	7.99	N
<i>Isoodon fusciventer</i>	quenda	P4	5	7.29	N

C.4. Land degradation risk table

Risk categories	Treeton wet valley Phase (214ThTRvw)
Wind erosion	10-30% of map unit has a high to extreme wind erosion risk
Water erosion	10-30% of map unit has a high to extreme water erosion risk
Salinity	<3% of map unit has a moderate to high salinity risk or is presently saline
Subsurface Acidification	>70% of map unit has a high subsurface acidification risk or is presently acid
Flood risk	30-50% of the map unit has a moderate to high flood risk
Water logging	>70% of map unit has a moderate to very high waterlogging risk
Phosphorus export risk	30-50% of map unit has a high to extreme phosphorus export risk

Appendix D. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
<u>Principle (a):</u> "Native vegetation should not be cleared if it comprises a high level of biodiversity." <p><u>Assessment:</u></p> <p>The vegetation of the application area does not align with any Threatened Ecological Communities (TEC) or Priority Ecological Communities (PEC).</p> <p>Vegetation within the application area is degraded and subject to a high percentage of blackberry (<i>Rubus ulmifolius</i>) throughout the entire application area. It is highly unlikely with these conditions, flora of conservation significance identified within the local area would occur within the application area.</p> <p>The application area also does not provide significant habitat for fauna species.</p>	Not likely to be at variance	No
<u>Principle (b):</u> "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." <p><u>Assessment:</u></p> <p>The application area does not consist of habitat that is significant for any conservation significant fauna species identified from the local area.</p>	Not likely to be at variance	Yes Refer to Section 3.2.1, above.

Assessment against the clearing principles	Variance level	Is further consideration required?
<p><u>Principle (c):</u> “Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora.”</p> <p><u>Assessment:</u></p> <p>Two species of threatened flora are recorded from the local area. However, given the degraded condition of the vegetation and the type of vegetation within the application area, the application area is unlikely to include, or be necessary for the continued existence of, threatened flora.</p>	Not likely to be at variance	No
<p><u>Principle (d):</u> “Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.”</p> <p><u>Assessment:</u></p> <p>No TECs endorsed by the Western Australian Minister for Environment have been mapped within 10 kilometres of the application area, and vegetation over the application area does not align with any known TECs.</p>	Not likely to be at variance	No
Environmental value: significant remnant vegetation and conservation areas		
<p><u>Principle (e):</u> “Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.”</p> <p><u>Assessment:</u></p> <p>The national objectives and targets for biodiversity conservation in Australia has a target to prevent the clearance of ecological communities with an extent below 30 per cent of that present prior to the year 1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001). The vegetation remaining within the local area and the vegetation complexes mapped within the application area are above 30 percent threshold.</p> <p>Based on the above, the vegetation proposed for clearing is not within an area that has been extensively cleared.</p>	Not likely to be at variance	No
<p><u>Principle (h):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.”</p> <p><u>Assessment:</u></p> <p>Given the distance to the nearest conservation area, the proposed clearing is not likely to have an impact on the environmental values of nearby conservation areas.</p>	Not likely to be at variance	No
Environmental value: land and water resources		
<p><u>Principle (f):</u> “Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.”</p> <p><u>Assessment:</u></p> <p>A non-perennial minor river is mapped within the application area, resulting in the removal of riparian vegetation.</p>	At variance	Yes Refer to Section 3.2.2, above.
<p><u>Principle (g):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.”</p> <p><u>Assessment:</u></p> <p>Noting the condition and the extent of the vegetation proposed to be cleared, the proposed clearing of trees with no understorey is unlikely to have an</p>	Not likely to be at variance	No

Assessment against the clearing principles	Variance level	Is further consideration required?
appreciable impact on land degradation. CSLC advised that proposed clearing is not expected to contribute to appreciable land degradation (CSLC, 2022).		
<p><u>Principle (i):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.”</p> <p><u>Assessment:</u></p> <p>No significant wetlands or Public Drinking Water Sources Areas are recorded within the application area.</p> <p>A watercourse is mapped within the application area, and removal of the vegetation within the application area may result in impacts to water quality downstream, both during and post dam construction. However, the applicant’s proposed mitigation actions, including implementation of a Sediment Management Plan and revegetation and fencing around the dam, are considered likely to reduce these potential impacts to an acceptable level.</p>	May be at variance	Yes Refer to Section 3.2.2, above.
<p><u>Principle (j):</u> “Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.”</p> <p><u>Assessment:</u></p> <p>The commissioner of soil and land conservation advised that proposed clearing is not expected to contribute to flooding on the proposed areas to clear because of the nature of the proposed clearings (CSLC, 2022).</p>	Not likely to be at variance	No

Appendix E. 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.

Condition	Description
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 F. Biological survey information (Harewood, 2024 and Ottelia Ecology, 2024) and photographs of the vegetation (Noakes and Noakes, 2021b)

Fauna Habitat Description	Example Image
<p>Seasonal drainage line containing a tall shrubland of various species over bracken and sedges. The natural vegetation is infested with blackberry (<i>Rubus ulmifolius</i>).</p> <p>Area = ~2.0 ha (~54%)</p>	

Figure 2: Fauna habitat within the application area

Photographs of the application area



Photo 1. Proposal site area, showing vegetated drainage line.



Photo 2. Example of Blackberry infestation along both sites of drainage line throughout the site, showing effects of herbicide control. Sites 7, 8 and 9 were located along this bank.



Photo 3. Crossing and ponded area upstream (also ponded downstream).



Photo 4. Ponded area in northeast tributary section; Site 6 adjacent to this



Photo 5. Waterlogged area adjacent to dam wall; Site 2.



Photo 6. Downstream waterlogged area, adjacent to eastern property boundary.



Photo 7. Vegetation in drainage line where there is no Blackberry infestation, showing grass understorey.



Photo 8. Vegetation in drainage line in eastern downstream section.





DAM SITE

MON | 09 AUG 2021 | 1:43PM
S 34.0794°, E 115.1694°
127° SE
6286
Forest Grove
Altitude: 26.0meter
(C) Southconsult Pty Ltd





Appendix G. Sources of information

G.1. GIS databases

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

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Cadastre Address (LGATE-002)
- Contours (DPIRD-073)
- DBCA – Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia – Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography – Inland Waters – Waterlines
- Hydrological Zones of Western Australia (DPIRD-069)
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme – Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register – Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Public Drinking Water Source Areas (DWER-033)
- Ramsar Sites (DBCA-010)
- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Groundwater Areas (DWER-034)
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Land Quality – Flood Risk (DPIRD-007)
- Soil Landscape Land Quality – Phosphorus Export Risk (DPIRD-010)
- Soil Landscape Land Quality – Subsurface Acidification Risk (DPIRD-011)
- Soil Landscape Land Quality – Water Erosion Risk (DPIRD-013)

- Soil Landscape Land Quality – Water Repellence Risk (DPIRD-014)
- Soil Landscape Land Quality – Waterlogging Risk (DPIRD-015)
- Soil Landscape Land Quality – Wind Erosion Risk (DPIRD-016)
- Soil Landscape Mapping – Best Available
- Soil Landscape Mapping – Systems
- Wheatbelt Wetlands Stage 1 (DBCA-021)

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) – Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers)

G.2. References

Commissioner of Soil and Land Conservation (CSLC) (2021) Land Degradation Advice and Assessment Report for clearing permit application CPS 9395/1, received 11 October 2021, Department of Primary Industries and Regional Development, Western Australia (DWER Ref: DWERDT514488)

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

Conroy, S. D. S. (2001). Population biology and reproductive ecology of *Geocrinia alba* and *G. vitellina*, two threatened frogs from southwestern Australia. Unpublished PhD Thesis, University of Western Australia, Perth

Conroy, S. D. S. and Brook, B. W. (2003). Demographic sensitivity and persistence of the threatened white and orange-bellied frogs of Western Australia. *Population Ecology*. 45: 105-114.

Department of Biodiversity, Conservation and Attractions. (2017). *Fauna Notes – Living with Quenda*. Retrieved from <http://www.dbca.wa.gov.au/>

Department of Biodiversity, Conservation and Attractions (DBCA) (2024) Species and Communities Branch fauna advice for clearing permit application CPS 9395/1, received 18 March 2024. Department of Biodiversity, Conservation and Attractions, Western Australia (DWER Ref: DWERDT921270).

Department of Biodiversity, Conservation and Attractions (DBCA) (2025) Species and Communities Branch fauna advice for clearing permit application CPS 10828/1, received 11 February 2025. Department of Biodiversity, Conservation and Attractions, Western Australia (DWER Ref: DWERDT1075183).

Department of Environment and Conservation (DEC) (2013). *Quokka (Setonix brachyurus) Recovery Plan*. Retrieved from <https://www.dccew.gov.au/sites/default/files/documents/quokka-recovery-plan.pdf>

Department of Environment Regulation (DER) (2013). A guide to the assessment of applications to clear native vegetation. Perth. Available from: https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf.

Department of Parks and Wildlife (DPaW) (2015). White-bellied and Orange-bellied Frogs (*Geocrinia alba* and *Geocrinia vitellina*) Recovery Plan. Wildlife Management Program No. 59. Department of Parks and Wildlife (now the Department of Biodiversity, Conservation and Attractions (DBCA)), Perth, WA. May 2015.

Department of Primary Industries and Regional Development (DPIRD) (2019). NRInfo Digital Mapping. Department of Primary Industries and Regional Development. Government of Western Australia. URL: <https://maps.agric.wa.gov.au/nrm-info/> (accessed 25 August 2024).

Department of Water and Environmental Regulation (DWER) (2019). Procedure: Native vegetation clearing permits. Joondalup. Available from:
https://dwer.wa.gov.au/sites/default/files/Procedure_Native_vegetation_clearing_permits_v1.PDF.

Department of Water and Environmental Regulation (DWER) (Regulatory Services – Water) (2024) *Rights in Water and Irrigation Act 1914* advice for clearing permit application CPS 10828/1, received 06 October 2025 (DWER Ref: DWERDT1138650 and DWERDT1061022).

Environmental Protection Authority (EPA) (2016). Technical Guidance – Terrestrial Fauna Surveys. Available from:
https://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Tech%20guidance-%20Terrestrial%20Fauna%20Surveys-Dec-2016.pdf.

Government of Western Australia (2019) 2018 South West Vegetation Complex Statistics. Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions, Perth,
<https://catalogue.data.wa.gov.au/dataset/dbca>

Government of Western Australia. (2019) 2018 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of March 2019. WA Department of Biodiversity, Conservation and Attractions. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics>

Harewood, G (2024). White bellied frog (*Anstisia alba*) for CPS 9395/1, Lot 1002 Forest Grove, received 15 January 2024 (DWER Ref: DWERDT893108)

Johnstone, R.E., Kirkby, T., and Sarti, K. (2013). The breeding biology of the Forest Red-tailed Black Cockatoo *Calyptorhynchus banksii* naso Gould in south-western Australia. I. Characteristics of nest trees and nest hollows. *Pacific Conservation Biology*; Clayton Vol. 19, Iss. 2, (Winter 2013): 121-142.

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.

Noakes. B.S and Noakes. S.M (2021) Supporting information for clearing permit application CPS 9395/1, received 30 August 2021 (DWER Ref: A2040117).

Noakes. B.S and Noakes. S.M (2024a) Clearing permit application CPS 10828/1, received 06 September 2024 (DWER Ref: DWERDT1032725).

Noakes. B.S and Noakes. S.M (2024b) Supporting information for clearing permit application CPS 10828/1, received 30 August 2021 (DWER Ref: DWERDT1050714).

Molloy, S., Wood, J., Hall, S., Wallrodt, S. and Whisson, G. (2009) South West Regional Ecological Linkages Technical Report, Western Australian Local Government Association and Department of Environment and Conservation, Perth.

Ottelia Ecology (2024) White-bellied Frog – *Anstisia alba* Targeted Survey Lot 1002 Warner Glen Road, received 19 December 2024 (DWER Ref: DWERDT1054667)

Schoknecht, N., Tille, P. and Purdie, B. (2004) Soil-landscape mapping in South-Western Australia – Overview of Methodology and outputs Resource Management Technical Report No. 280. Department of Agriculture.

Shire of Augusta-Margaret River (2025a). Advice for clearing permit application CPS 10828/1, received 23 December 2025 (DWER Ref: DWERDT1252618).

Shire of Augusta-Margaret River (2025b). *Shire of Augusta Margaret River, Planning and Development Act 2005, Local Planning Scheme No. 1, Planning Approval No. P224272*, received 23 December 2025 (DWER ref: DWERDT1252618)

Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.

SW Hydrology (2024). *Proposed dam development Lot 1002 Warner Glen Rd, Forest Grove*, received 11 June 2024 (DWER ref: DWERDT1032725)

SW Hydrology (2025). *Chapman Brook Pty Ltd, Proposed Revegetation Plan, Lot 1002 Warner Glen Road, Forest Grove, and Lot 1743 on Plan 120436*.

Submission (2025) public submission in relation to clearing permit application CPS 10828/1, received 08 January 2025 (DWER Ref: DWERDT1058669)

Submission (2024) public submission in relation to clearing permit application CPS 10828/1, received 30 December 2024 (DWER Ref: DWERDT1056811)

Western Australian Herbarium (1998-). FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions, Western Australia. <https://florabase.dpaw.wa.gov.au/> (Accessed 25 June 2024)