



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 8698/1
Permit Holder:	VPG Hilbert Pty Ltd
Duration of Permit:	13 January 2020 to 13 January 2025

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of managing *Typha orientalis*.

2. Land on which clearing is to be done

Lot 8000 on Deposited Plan 408109, Hilbert
Lot 8001 on Deposited Plan 408109, Hilbert
Lot 8002 on Deposited Plan 408109, Hilbert

3. Area of Clearing

The Permit Holder must not clear more than 0.205 hectares of native vegetation within the area cross-hatched yellow on attached Plan 8698/1.

4. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

PART II – MANAGEMENT CONDITIONS

5. Avoid, minimise and reduce the impacts and extent of clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in order of preference:

- avoid the clearing of native vegetation;
- minimise the amount of native vegetation to be cleared; and
- reduce the impact of clearing on any environmental value.

6. Dieback and weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds* and *dieback*:

- clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- ensure that no known *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

PART III – RECORD KEEPING AND REPORTING

7. Record keeping

The Permit Holder must maintain the following records in relation to the clearing of native vegetation authorised under this Permit:

- (a) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees;
- (b) the date(s) that the area was cleared;
- (c) the size of the area cleared (in hectares);
- (d) actions taken to avoid, minimise and reduce the impacts and extent of clearing in accordance with condition 5 of this Permit; and
- (e) actions taken to minimise the risk of the introduction and spread of *dieback* and *weeds* in accordance with condition 6 of this Permit.

8. Reporting

The Permit Holder must produce the records required under condition 7 of this Permit when required by the *CEO*.

DEFINITIONS

The following meanings are given to terms used in this Permit:

CEO means the Chief Executive Officer of the Department responsible for the administration of the clearing provisions under the *Environmental Protection Act 1986*;

dieback means the effect of *Phytophthora* species on native vegetation;

fill means material used to increase the ground level, or fill a hollow;

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;

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

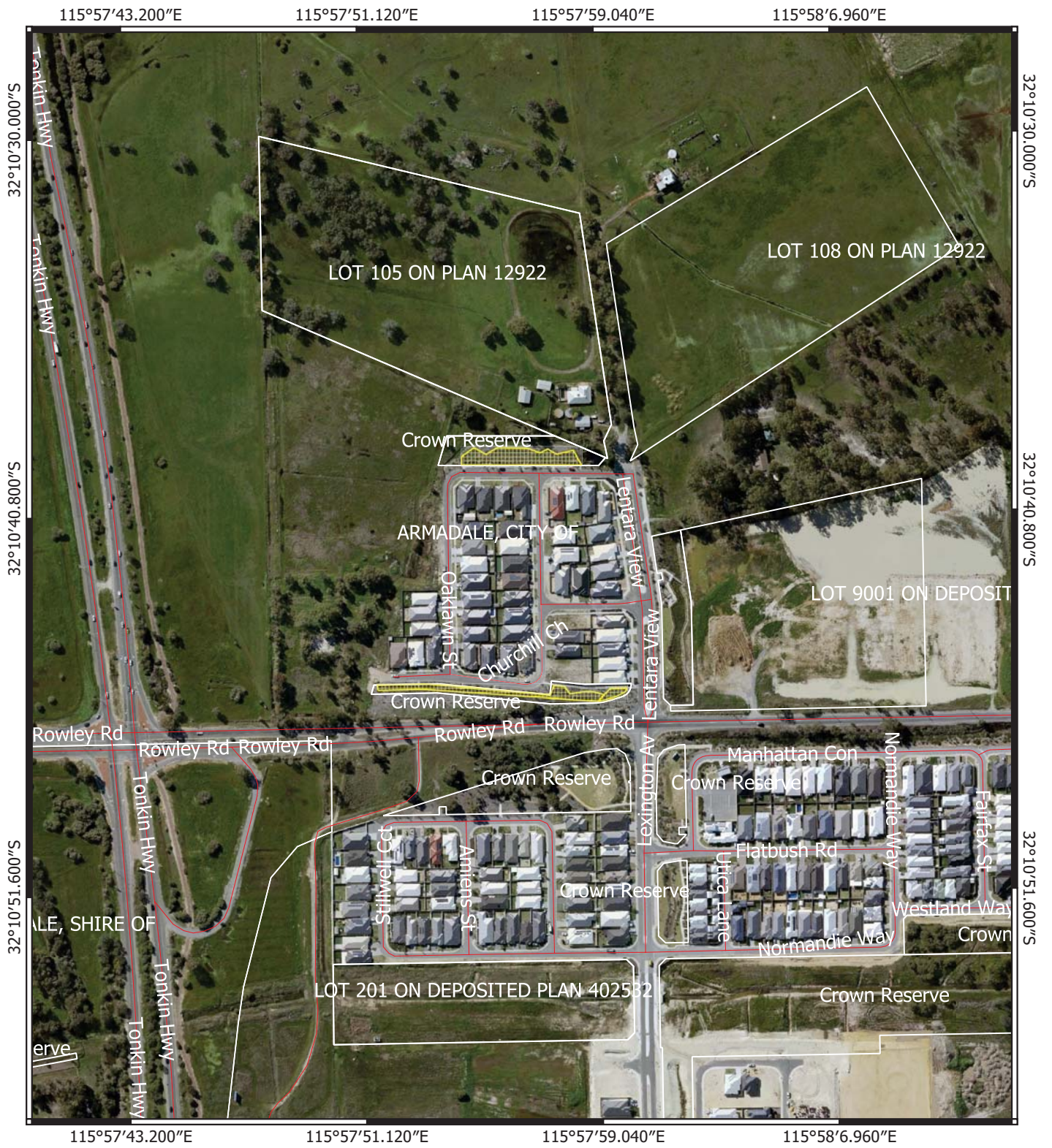


Samara Rogers
MANAGER
NATIVE VEGETATION REGULATION





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

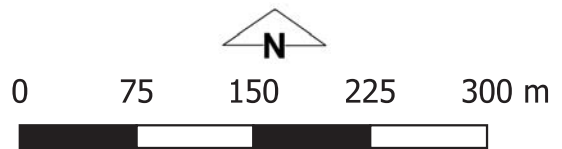
16 December 2019

Plan 8698/1



Legend

-  Cadastre - LGATE 218
-  CPS areas approved to clear
-  Local Government Authorities
-  Road Centrelines



Samara Rogers

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Officer delegated under section 20 of the
 Environmental Protection Act 1986



GOVERNMENT OF
 WESTERN AUSTRALIA



1. Application details

1.1. Permit application details

Permit application No.: 8698/1
Permit type: Purpose Permit

1.2. Applicant details

Applicant's name: VPG Hilbert Pty Ltd
Application received date: 14 October 2019

1.3. Property details

Property: Lot 8000 on Deposited Plan 408109, Hilbert
Lot 8001 on Deposited Plan 408109, Hilbert
Lot 8002 on Deposited Plan 408109, Hilbert
Local Government Authority: City of Armadale
Localities: Hilbert

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	Purpose category:
0.205		Mechanical Removal	Drainage

1.5. Decision on application

Decision on Permit Application: Granted
Decision Date: 16 December 2019

Reasons for Decision: The clearing permit application has been assessed against the clearing principles, planning instruments and other matters in accordance with section 51O of the *Environmental Protection Act 1986*. It has been concluded that the proposed clearing is at variance with principle (f) and is not likely to be at variance with the remaining clearing principles.

Through the assessment, it was determined that the application area may increase the risk of weeds and dieback. A weed and dieback management condition has been placed on the clearing permit to minimise the risk of weeds and dieback spreading into adjacent remnant vegetation.

In determining to grant a clearing permit subject to conditions, the Delegated Officer found that the proposed clearing is unlikely to lead to an unacceptable risk to the environment.

2. Site Information

Clearing Description: The application is to clear of 0.205 hectares of native vegetation within Lots 8000, 8001 and 8002 on Deposited Plan 408109, Hilbert for the purpose of removing *Typha* from drainage swales and basin.

Vegetation Description The application area is mapped within the Swan Coastal Plain vegetation complex Beermullah Complex, described as a mixture of low open forest of *Casuarina obesa* (Swamp Sheoak) and open woodland of *Corymbia calophylla* (Marri) - *Eucalyptus wandoo* (Wandoo) - *Eucalyptus marginata* (Jarrah). Minor components include closed scrub of *Melaleuca* species and occurrence of *Actinostrobus pyramidalis* (Swamp Cypress) (Hedde et al., 1980).

Vegetation Condition As the proposed clearing occurs within drainage infrastructure, the vegetation condition of the application area is considered to be 'Completely Degraded', the structure of the vegetation is no longer intact and the area is completely or almost completely without native species (Keighery, 1994).

Soil Type The application area is mapped as occurring within the following mapped soil systems (DPIRD, 2017):

- Pinjarra B6 Phase: Sandplain and broad extremely low rises with imperfectly drained deep or very deep grey siliceous sands;
- Pinjarra P2 Phase: Flat to very gently undulating plain with deep alkaline mottled yellow duplex soils which generally consist of shallow pale sand to sandy loam over clay; and
- Pinjarra P5 Phase: Poorly drained flats, commonly with gilgai microrelief and with deep black-grey to olive-brown cracking clays with subsoils becoming alkaline.

Local Area

The local area referred to in the assessment of this application is defined as a 10 kilometre (km) radius measured from the perimeter of the application area.



Figure 1: Application area (outlined in blue).

3. Assessment of application against clearing principles and planning instruments and other matters

Typha orientalis (Typha) is a type of sedge that is native to Western Australia. However, this species is capable of aggressive invasions that can transform ecosystems unless it is actively managed (Western Australian Herbarium, 2019). Without management, Typha can develop quickly into a monoculture and cover an entire waterbody. Given the application area comprises of Typha and its tendency to colonise ecosystems, in this case drainage swales, it is not anticipated that the application area comprises suitable habitat for any conservation significant flora species. While Typha is problematic and invasive, it may also provide habitat for fauna such as native frogs and waterbirds. However, previous advice from Department of Biodiversity, Conservation and Attractions (DBCA) in relation to similar applications advised that Typha can choke up waterways and reduce the open mud flat habitat that is vital for wader and waterbird species. Additionally, while Typha may provide habitat for native fauna, this species can also provide habitat for non-native and feral animals which can predate on native fauna (DBCA, 2019). Considering this, while the proposed clearing may result in the loss of suitable habitat for some fauna species, the proposed clearing is not likely to result in the loss of significant habitat for fauna species and the application area is not likely to comprise a high level of biodiversity. The application area is not adjacent to any conservation reserves and is not included in any ecological linkages between areas of conservation value.

A total of 31 threatened fauna species have been recorded in the local area, comprising 20 species protected under international agreement, eight Priority fauna, and one specially protected fauna species (DBCA, 2007-). No occurrences of the above species have been recorded within the application area. As mentioned above, given the application area comprises of Typha which has a tendency to colonise ecosystems and reduce suitable fauna habitat, the proposed clearing is not anticipated to result in the loss of significant habitat for fauna species.

A review of available databases determined that 38 flora species of conservation significance have been recorded in the local area, comprising three Priority 1 flora species, three Priority 2 flora species, 12 Priority 3 flora species, 10 Priority 4 flora species, and 10 Threatened flora species (Western Australia Herbarium, 1998-). No occurrences of the above species have been recorded within the application area. As discussed above, it is not anticipated that the application area comprises suitable habitat for any conservation significant flora species as Typha develops into a monoculture when left uncontrolled.

A review of available databases determined that the nearest State listed threatened ecological community (TEC), 'Herb rich shrublands in clay pans', occurs approximately 1.85 kilometres north-west of the application area. A further seven TECs and two priority ecological communities (PECs), occur in the local area. Due to the distance to the TECs and PECs, the proposed clearing is not likely to have a significant impact on these communities. The application area is not likely to comprise the whole or part of, or be necessary for the maintenance of, a TEC.

As the local area retains more than 30 per cent of its pre-European clearing extent, and the proposed clearing of Typha is located within drainage infrastructure, the application area is not considered as a significant remnant of native vegetation in an area that has been extensively cleared.

The application area lies within two wetlands; the Keysbrook Palusplain and the Armadale Palusplain. Additionally, the proposed clearing activities comprise the removal of Typha growing in association with drainage swales. As this vegetation comprises part of the riparian vegetation community growing in association with these swales which are considered a watercourse and are also growing in, or in association with, an environment associated with a watercourse or wetland, the proposed clearing is at variance to principle (f). As discussed previously in this report, the proposed clearing is for the purpose of controlling the occurrence of Typha due to its invasive nature and adverse impacts on waterways. Given the application area comprises monocultures of Typha, which are anticipated to regrow and require long-term management to control, the proposed clearing is not anticipated to result in any long-term impact to ecological values that the swales may provide.

Based on the mapped land degradation risk, the application area has a relatively low likelihood of surface water erosion and flooding. Portions of the application area are mapped at upwards of 50 per cent, a high to extreme risk, for salinity, subsurface acidification, waterlogging, and wind erosion that may lead to land degradation. However, given that the vegetation is in 'Completed Degraded' (Keighery, 1994) condition, and that the extent of the proposed clearing is small and solely for the purpose of Typha removal, the proposed clearing is not likely to cause appreciable land degradation.

The application area is within the Perth Groundwater Area proclaimed under the *Rights in Water and Irrigation Act 1914* (the RIWI Act). The removal of Typha has the potential to increase sedimentation and turbidity within the swales where water is present, thereby possibly impacting surface water quality. However, the purpose of the proposed clearing is to improve drainage by removing Typha. Noting this and that the clearing does not intersect with any sources of natural surface water, it is not likely that the proposed clearing will cause deterioration in the quality of surface or underground water.

The proposed clearing activities comprise the removal of Typha growing as a monoculture within the City of Armadale's drainage swales. Wide spread flooding may occur if Typha is not managed correctly, therefore the proposed clearing would prevent flooding rather than cause, or exacerbate, the incidence or intensity of flooding.

Given the above, the proposed clearing is at variance to principle (f) and is not likely to be at variance to the remaining clearing principles.

Planning instruments and other relevant matters.

The clearing permit application was advertised on the Department of Water and Environmental Regulation's website on 18 November 2019, with a 14 day submission period. No submissions were received in relation to this application.

4. References

- Department of Biodiversity, Conservation and Attractions (2007-). NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>.
- Department of Biodiversity, Conservation and Attractions (2019) DBCA Wetlands advice in relation to CPS 8394/1. DWER ref: A1808046.
- Department of Primary Industries and Regional Development (DPIRD) (2017). NRInfo Digital Mapping. Accessed at <https://maps.agric.wa.gov.au/nrm-info/> Accessed July 2019. Department of Primary Industries and Regional Development. Government of Western Australia.
- Heddl, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Biodiversity, Conservation and Attractions. <http://florabase.dpaw.wa.gov.au/> (accessed November 2019).
- Western Australian Herbarium (2019) Florabase – The Western Australian Flora. *Typha orientalis*, Bulrush. Available from: <https://florabase.dpaw.wa.gov.au/browse/profile/99>.

GIS Databases:

- Aboriginal Sites of Significance
- DBCA Managed Estate
- Directory of Important Wetlands
- Geomorphic Wetlands Swan Coastal Plain
- Hydrography, hierarchy
- Hydrography, linear
- Land Degradation datasets
- NatureMap
- SAC Bio Datasets
- Soils, Statewide
- TPFL Data
- Vegetation Complexes Swan Coastal Plain
- WA Herbarium Data
- WA TEC/PEC Boundaries