

31 October 2016

Water Corporation

Our ref: 61/34862
Your ref: 159114

Dear Carole

Vasse Diversion Drain Referral Requirements and Recommendations

1 Introduction

1.1 Background and Description of the Survey area

The Water Corporation (the Corporation) proposes to upgrade the Vasse Diversion Drain within the City of Busselton. The Vasse Diversion Drain (hereon referred to as the survey area) is located approximately 220 kilometres (km) from Perth on the shores of Geographe Bay. The survey area is approximately 31.88 ha in size and extends approximately 6.3 km from the ocean outfall point, at Geographe Bay in the north, to the Busselton Golf Course in the south.

1.2 Purpose of this Report

This report has been prepared to provide an assessment of potential environmental impacts associated with the proposal which may trigger a requirement for referral under State or Commonwealth environmental legislation.

This report draws on the findings of the Vase Diversion Drain Upgrade Flora and Fauna Survey Report (GHD 2016) and should be read in conjunction with this document.

2 Environmental approvals and referrals

This section provides preliminary advice on potential environmental approvals and referrals required, based on the ecological values identified within the survey area.

2.1 Commonwealth government

Referral to Department of the Environment and Energy (DotEE) under the EPBC Act is triggered if a proposed action has or potentially has a significant impact on any Matters of National Environmental Significance (MNES). MNES are factors that require legislated protection in order to conserve biodiversity, protect world and national heritage places, and comply with international treaties. Table 1 shows an assessment of the proposal in terms of MNES.

Table 1 Assessment of Matters of National Environmental Significance

Matter of National Environmental Significance	Present	Need for referral to DotE under EPBC Act (likely significant impact)
World Heritage Properties	None	
National Heritage Places	None	
Wetlands of International Significance	Vasse Wonnerup System Ramsar Site	<p>Unlikely</p> <p>The DotEE (2013) Matters of National Environmental Significance - Significant Impact Guidelines 1.1 (DoE 2013) establishes criteria to assist proponents in determining when an action is likely to have a significant impact on a declared Ramsar wetland. These include:</p> <ul style="list-style-type: none"> • areas of the wetland being destroyed or substantially modified • a substantial and measurable change in the hydrological regime of the wetland, for example, a substantial change to the volume, timing, duration and frequency of ground and surface water flows to and within the wetland • the habitat or lifecycle of native species, including invertebrate fauna and fish species, dependant upon the wetland being seriously affected • a substantial and measurable change in the water quality of the wetland – for example, a substantial change in the level of salinity, pollutants, or nutrients in the wetland, or water temperature which may adversely impact on biodiversity, ecological integrity, social amenity or human health, or • an invasive species that is harmful to the ecological character of the wetland being established (or an existing invasive species being spread) in the wetland. <p>The proposed action involves the upgrading of the existing Vasse Diversion Drain, which is a constructed watercourse. It is anticipated that potential impacts to the Ramsar wetland during the construction stage could be managed through the implementation of a comprehensive Construction Environmental Management Plan.</p>

Matter of National Environmental Significance	Present	Need for referral to DotE under EPBC Act (likely significant impact)
		It is anticipated that any potential impacts during the operational phase would be similar to those associated with the existing drain.
Listed Threatened Species and Ecological Communities	Carnaby's Black Cockatoo (Endangered), Baudin's Black Cockatoo (Vulnerable) and Forest Red-tailed Black Cockatoo (Vulnerable)	<p>Likely</p> <p>The DotEE referral guidelines establish triggers for referral under the EPBC Act in relation to the clearing of Black Cockatoo nesting trees, breeding habitat and foraging habitat (DSEWPaC 2012).</p> <p>Clearing of any known nesting tree and/or clearing of more than 1 ha of quality foraging habitat and/or clearing of any breeding habitat is considered likely to have a significant impact on Black Cockatoo species and triggers the requirement for referral.</p> <p>Within the survey area, 5.67 ha of foraging habitat was mapped and 49 potential breeding trees were identified.</p> <p>Clearing of potential breeding habitat, habitat trees or >1 ha foraging habitat within the survey area is likely to trigger the requirement for referral under the EPBC Act.</p>
	Western Ringtail Possum (Endangered)	<p>Likely</p> <p>Within the survey area, 3.26 ha of core and supportive habitat was mapped within the survey area.</p> <p>Clearing of more than 0.5 ha of core or supportive habitat is considered likely to have a significant impact on Western Ringtail Possums and triggers the requirement for referral under the EPBC Act (DotE 2009).</p> <p>Also, if the clearing causes fragmentation of existing habitat linkages or if the clearing of more than 50 per cent of a remnant habitat patch that is between 0.1 and 0.5 hectares in size is proposed, then the project is considered likely to have a significant impact on Western Ringtail Possums and triggers the requirement for referral under the EPBC Act.</p>
Migratory Species	None	
Commonwealth Marine Areas	None	
Great Barrier Reef Marine Park	None	

Matter of National Environmental Significance	Present	Need for referral to DotE under EPBC Act (likely significant impact)
Nuclear Actions (including uranium mines)	None	
A Water Resource (in relation to coal seam gas development and large coal mining development)	None	

2.2 Western Australian government

2.2.1 Environmental Protection Authority

Significant proposals must be referred to the EPA under Section 38 of the *Environmental Protection Act 1986* (EP Act). In deciding whether a proposal will be subject to the formal environmental impact assessment process, the EPA takes into account the environmental significance of any potential impacts that may result from the implementation of the scheme or proposal.

In the absence of a broader environmental assessment, the majority of the potential biological impacts associated with the survey area are linked to native vegetation clearing and loss of fauna habitat. The potential impacts from the loss of native vegetation and loss of fauna habitat may be effectively assessed through the Environmental Protection (Clearing of Native Vegetation) Regulations 2004. Therefore with consideration of the biological values discussed in this report, it is considered unlikely that the survey area would require referral to the EPA under Section 38 of the EP Act.

2.2.2 Department of Environment Regulation

The clearing of vegetation in Western Australia requires a permit under Part V of the EP Act, unless an exemption applies.

The Water Corporation has been granted a State-wide Clearing Purpose Permit for:

1. Water Corporation Project activities
2. Maintenance of existing water services infrastructure

The Water Corporation Purpose Permit does not authorise the permit holder to clear native vegetation for Project activities where:

- It does not have the power to clear native vegetation for those Project activities under the *Water Corporation Act 1995* or any other written law
- The clearing may be seriously at variance with the Department of Environment Regulation clearing principles
- Those Project activities are incorporated in any proposal that is referred to and assessed under Part IV of the EP Act by the EPA

The Water Corporation, under delegated authority, manages Clearing Permits under Part V of the EP Act. If the project is referred under the EPBC Act and determined by the Minister of Environment as a controlled action, the Water Corporation cannot use their internal state wide clearing permit (Condition 2 iv), and a clearing permit through the DER is applied for. If agreed by both the Commonwealth and the Western Australia Government, the bilateral agreement assessment process is initiated.

Based on the assessment provided in Table 2, clearing of 16.05 ha of native vegetation within the survey area is at variance to principle (b) and (f) and is likely to be at variance to principles (g), (i) and (j).

To allow clearing to proceed under the Water Corporation state-wide clearing permit, stakeholder comment should be invited. Following response to any comments received, Water Corporation can prepare and issue a Native Vegetation Clearing Form (NVCF) to the responsible officer for sign-off, to allow clearing to proceed.

Table 2 Assessment of the survey area against the ten clearing principles

Principle	Assessment	Outcome	Data sources
<p>a) – Native vegetation should not be cleared if it comprises a high level of biological diversity.</p>	<p>The survey area is situated in the South West Botanical Province of Western Australia (Beard 1980), within the Swan Coastal Plain Interim Biogeographic Regionalisation of (IBRA) bioregion and Perth IBRA subregion. The flora of the Perth sub-region is diverse with 3,364 native vascular flora taxa recorded.</p> <p>The survey area comprises 31.88 ha which includes 6.41 ha of remnant vegetation, 0.04 ha of rehabilitated areas, 15.83 ha of cleared or highly disturbed land and 9.6 ha associated with infrastructure (including Vasse Drain and roads). The condition of remnant vegetation ranges from Very Good to Completely Degraded. The majority of the vegetation within the survey area was rated as Degraded to Completely Degraded condition with little to no understorey remaining. 0.71 ha of the vegetation within the survey area was in Very Good to Good condition. In these areas of Good condition, the vegetation structure has been significantly altered by obvious signs of disturbance, largely weeds and clearing however retained basic vegetation structure.</p> <p>Three broad floristic formations containing five vegetation types (excluding rehabilitated areas, Vasse Drain and highly disturbed areas) were identified within the survey area. Native vegetation within the survey area includes Eucalyptus woodland on plains and damplands in the south of survey area, <i>Melaleuca</i> shrublands associated with the Vasse-Wonnerup wetlands and <i>Agonis flexuosa</i> tall shrublands to woodlands on dunes in the north of the survey area.</p> <p>Desktop searches identified one TEC and two PECs and/or their buffers within the survey area. The EPBC Act listed Vulnerable TEC, <i>Subtropical and Temperate Coastal Saltmarsh</i>, occurs in the middle of the survey area and is associated with the wetland, Vasse and Wonnerup estuaries. Two DPaW listed Priority 1 PECs and/or their buffers occur within the survey area and include:</p> <ul style="list-style-type: none"> • <i>Eucalyptus rudis</i> (flooded gum), <i>Corymbia calophylla</i>, <i>Agonis flexuosa</i> Closed Low Forest (near Busselton) • <i>Euclayptus cornuta</i>, <i>Agonis flexuosa</i> and <i>Eucalyptus decipiens</i> forest on deep yellow-brown siliceous sands over limestone. <p>No TECs were recorded within the survey area during the assessment. Two vegetation types align with the DPaW Priority 1 listed PEC, <i>Eucalyptus rudis</i> (flooded gum), <i>Corymbia calophylla</i>, <i>Agonis flexuosa</i> Closed Low Forest (near Busselton).</p>	<p>Unlikely to be at variance to this Principle</p>	<p>Smith (1973) DotEE (2016) DPaW (2007–) GHD (2010) DPaW TEC and PEC databases DPaW TPFL and WAHERB WA Herbarium (1998–)</p>

Principle	Assessment	Outcome	Data sources
	<p>Vegetation types Marri and Flooded Gum woodland (VT1) and Peppermint woodland (VT2) (total of 2.88 ha) align with this PEC.</p> <p>Desktop searches identified 934 plant taxa, representing 102 families, which have previously been recorded within 5 km of the survey area. This total comprises 782 native taxa and 152 naturalised (non-native) flora taxa.</p> <p>Ninety-four flora taxa (including subspecies and varieties) representing 38 families and 76 genera were recorded from the survey area during the 2009 and 2016 field surveys. This total comprised 43 native taxa and 51 introduced flora taxa.</p> <p>Desktop database searches identified the presence/potential presence of 61 conservation significant flora taxa within 5 km of the survey area. A likelihood of occurrence assessment was conducted post-field survey which concluded that seven taxa may possibly occur within the survey area. No EPBC Act or WC Act listed flora taxa were recorded within the survey area during the field surveys in 2010 or 2016.</p> <p>Six fauna habitat types were recorded in the survey area, including rehabilitated areas and the Vasse Drain waterbody which provides habitat for aquatic species. The majority of the survey area is surrounded by paddocks and crops, however a small number of habitat corridors remain.</p> <p>Six-hundred and ninety fauna species have previously been recorded from within 5 km of the survey area, including 209 birds, 28 mammals, 25 reptiles, four amphibians and 10 introduced species. The remainder of the fauna consists of invertebrates or misnamed species. Combined results from the 2009 and 2016 surveys recorded a total of 62 fauna species, consisting of 42 birds, 11 reptiles, 8 mammals, 5 amphibians, 2 fish, 1 crustacean and 1 mollusc. Seven introduced species were also recorded in the survey area.</p> <p>Surveys of the survey area recorded four conservation significant fauna species, <i>Isoodon obesulus</i> subsp. <i>fusciventer</i> (Quenda, Southern Brown Bandicoot), <i>Pandion haliaetus</i> (Osprey), <i>Pseudocheirus occidentalis</i> (Western Ringtail Possum), <i>Westralunio carteri</i> (Carter's Freshwater Mussel).</p> <p>An assessment on the likelihood of conservation significant species occurring in the survey area was also undertaken which identified an additional 18 fauna species considered as likely to occur within the survey area.</p>		

Principle	Assessment	Outcome	Data sources
	<p>The survey area is largely on cleared or highly disturbed lands. The remaining bushland remnants have a reduced biodiversity compared to bushland in the local area. Given the linear nature of the survey area and the location immediately adjacent to the existing man-made Vasse Drain, native vegetation within the survey area is not considered to have high levels of biological diversity.</p>		
<p>b) – Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia</p>	<p>Six fauna habitat types were recorded in the survey area, including 6.41 ha of native vegetation, 0.04 ha of rehabilitated areas and 9.6 ha of aquatic habitat within the Vasse Drain. A further 15.83 ha of highly disturbed areas, representing approximately half of the survey area, provides little to no value to fauna. While large sections of the survey area have previously been disturbed, where native vegetation remains it retains some structure and provides habitat for fauna.</p> <p>Six-hundred and ninety fauna species have previously been recorded from within 5 km of the survey area, including 209 birds, 28 mammals, 25 reptiles, four amphibians and 10 introduced species. The remainder consists of invertebrates or mis-identified species. A total of 62 fauna species have been recorded from the 2009 and 2016 surveys, consisting of 42 birds, 11 reptiles, 8 mammals, 5 amphibians, 2 fish, 1 crustacean and 1 mollusc. Seven introduced species were also recorded in the survey area.</p> <p>Surveys of the survey area recorded four conservation significant fauna species,</p> <ul style="list-style-type: none"> • <i>Isoodon obesulus</i> subsp. <i>fusciventer</i> (Quenda, Southern Brown Bandicoot) – Priority 4 (DPaW) • <i>Pandion haliaetus</i> (Osprey) – Migratory Wetland (EPBC Act), Schedule 5 (WC Act) • <i>Pseudocheirus occidentalis</i> (Western Ringtail Possum) – Endangered (EPBC Act), Endangered (WC Act) • <i>Westralunio carteri</i> (Carter's Freshwater Mussel) – Vulnerable (WC Act) <p>An assessment of the likelihood of conservation significant fauna species occurring in the survey area was also undertaken which identified an additional 18 fauna species considered as likely to occur within the survey area, including Carnaby's, Baudin's and Forest Red-tailed Black Cockatoos.</p>	<p>Is at variance to this Principle</p>	<p>DotEE (2016) DPaW (2007–) GHD (2010)</p>

Principle	Assessment	Outcome	Data sources
	Conservation significant species, Carter's Freshwater Mussel would solely rely on the habitats within the survey area and the Western Ringtail Possums core habitat occurs within the survey area, and as such, the Project is likely to be at variance to this Principle.		
(c) – Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	<p>Desktop searches identified the presence/potential presence of 61 conservation significant flora taxa within 5 km of the survey area. A likelihood of occurrence assessment was conducted post-field survey for all conservation significant flora which concluded that one rare flora species may possibly occur within the survey area. <i>Tetraria australiensis</i> is listed as Vulnerable under the EPBC Act and Threatened under the WC Act.</p> <p>Searches for rare flora taxa were undertaken during the field survey. Given the largely degraded condition of the survey area, the survey effort and season (spring survey) if populations of Threatened flora taxa were present it is expected they would have been identified in the field.</p> <p>No Threatened flora taxa were recorded from the survey area during the field surveys.</p>	Unlikely to be at variance to this Principle.	<p>DotEE (2016)</p> <p>DPaW (2007–)</p> <p>DPaW TPFL and WAHERB</p> <p>WA Herbarium (1998–)</p> <p>GHD (2010)</p>
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.	Desktop searches identified the presence of one TEC buffer within the survey area, however no vegetation associated with TECs was recorded within the survey area during the assessment.	Unlikely to be at variance to this Principle.	<p>DotEE (2016)</p> <p>DPaW TEC and PEC databases</p>
(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	<p>The survey area is located within the Swan Coastal Plain IBRA Bioregion, which has approximately 38.58 percent of its pre-European extent remaining.</p> <p>Regional vegetation mapping has been undertaken by Smith (1973). This mapping identified three vegetation associations within the survey area (1000, 949 and 27).</p> <p>The extent of the vegetation associations has been determined by the State-wide vegetation remaining extent calculations maintained by the DPaW (2014 – GoWA 2015). The current extents remaining of vegetation association 1000 are below the 30% threshold at the IBRA bioregion and Local Government Area (LGA) levels. Vegetation association 949 is below the 30% threshold at the LGA level only.</p>	Unlikely to be at variance to this Principle.	<p>Smith (1973)</p> <p>Government of Australia (GoWA) 2015</p>

Principle	Assessment	Outcome	Data sources
	<p>The majority of vegetation within the survey area was rated as Degraded to Completely Degraded in condition (21.05 ha), with little to no understorey remaining.</p> <p>Given the disturbed nature of remnant vegetation within the survey area and linear alignment alongside an existing disturbance corridor, the Project is unlikely to be at variance to this Principle.</p>		
(f) – Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.	<p>Seven Geomorphic Wetlands occur within the survey area, including two Conservation Category wetlands and five Multiple Use wetlands. The Geomorphic Wetlands located in the middle of the survey area are also associated with the Vasse-Wonerup system, a Ramsar listed wetland.</p> <p>Vegetation association, Tall <i>Melaleuca</i> shrubland (0.74 ha) located within the Geomorphic Wetlands UFI 222, UFI 223, UFI 224, UFI 13198 and UFI 13995 of the survey area is considered riparian vegetation, and is restricted to these areas within the landscape. This vegetation ranged from Very Good to Completely Degraded condition, with 0.25 ha in Very Good to Good condition and 0.25 ha in Degraded to Completely Degraded condition.</p> <p>Approximately one quarter of the survey area is classified as multiple use wetland. Small areas of native vegetation remain within these areas, however are not considered riparian vegetation as they are not associated with any defined watercourse or wetland, and were in Completely Degraded condition. Species associated with floodplains were recorded within the Marri and Flooded Gum woodland in the south of the survey area. These areas were predominantly in Degraded to Completely Degraded condition, with no understorey remaining.</p> <p>Clearing of the <i>Melaleuca</i> shrubland vegetation associated with the wetlands located within the survey area is at variance to this principle.</p>	At variance to this Principle.	DotEE (2016) DoW (2016)
(g) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	<p>The survey area is located over several landforms, including:</p> <ul style="list-style-type: none"> • Cokelup wet clayey flats • Quindalup South • Vasse Wonerup wet flats and very wet saline flats • Ludlow wet flats • Abba wet vales. <p>These landforms soils comprise of yellow sands and calcareous sands in the north and alluvial soils in the south of the survey area.</p>	Likely to be at variance to this Principle.	DAFWA (2007) ASRIS (2016)

Principle	Assessment	Outcome	Data sources
	<p>A review of Acid Sulfate Soils (ASS) risk mapping provided by the CSIRO indicates that the survey area is mapped as having ‘extremely low probability of occurrence’ throughout most of the survey area, with the section associated with the wetlands as having a ‘high probability of occurrence’.</p> <p>Any clearing of native vegetation within the survey area has the potential to cause water and wind erosion in areas with lighter-texture soils (e.g. sandy soils). The high sand content of the soils and ease with which these materials can be transported by the wind means there is a high risk of wind erosion in this area. However, given these soils are porous and well-drained and the survey area is linear in nature, the risk of water erosion is low.</p> <p>Overall, due to the degraded nature of the majority of the survey area and the long and linear nature of the native vegetation to be cleared, clearing for most the project is unlikely to cause substantial land degradation. However clearing within the areas mapped as having a high probability of occurrence of ASS occurring may cause further land degradation within the survey area and surrounds.</p>		
<p>(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.</p>	<p>No reserves, conservation areas or other DPaW-managed estates are located within the survey area. The closest DPaW-managed conservation area is an Unnamed Nature Reserve (Class C), located adjacent to the northern section of the survey area. The survey area is connected to this nature reserve by native vegetation; however the small and linear nature of the proposed clearing reduces the likelihood for impacts to this conservation area.</p> <p>The majority of the survey area has been historically cleared or otherwise highly modified (e.g. by roads, tracks), with some remaining remnant vegetation located on the edges of the drain. Large sections of this vegetation have further been degraded by historical clearing and subsequent weed invasion.</p> <p>Locally, there is a corridor in the north of the survey area running in an east west direction, associated with the wetland. Bushland adjacent to the middle of the survey area also provide corridors in the local area. In the south of the survey area, a vegetated corridor extends from the survey area further south along the drain.</p> <p>Overall, due to the degraded nature of the majority of the survey area and the long and linear nature of the native vegetation to be cleared, clearing for the Project is</p>	<p>Unlikely to be at variance to this Principle.</p>	<p>DPaW Estate spatial dataset</p>

Principle	Assessment	Outcome	Data sources
	unlikely to impact on the environmental values of any adjacent or nearby conservation areas.		
(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.	<p>The survey area is located in the <i>Perth Rights in Water and Irrigation Act 1914</i> (RIWI Act) 'Busselton-Capel Groundwater Area' Groundwater area.</p> <p>Seven Geomorphic Wetlands occur within the survey area, including two Conservation Category wetlands and five Multiple Use wetlands. The Geomorphic Wetlands located in the middle of the survey area are also associated with the Vasse-Wonerup system, a Ramsar listed wetland. A small area of <i>Melaleuca</i> shrubland vegetation occurs with the wetlands in the middle of the survey area and clearing of this vegetation may alter the hydrology and changes to surface water flows of the wetlands.</p> <p>An Environmental Protection Policy (EPP) lake protected under the <i>Environmental Protection (Swan Coastal Plain Lakes) Policy 1992</i> occurs within the survey area. The EPP lake is associated within the wetlands located north of the Busselton Bypass. Clearing of vegetation (<i>Melaleuca</i> shrubland vegetation) associated with the EPP lake, may result in impacts of the proposed project on the EPP lake.</p> <p>While the survey area contains 6.45 ha of native vegetation, the majority is degraded, and clearing is unlikely to cause deterioration in the quality of surface or underground water for most of the survey area. Clearing of the <i>Melaleuca</i> shrubland vegetation within the Geomorphic Wetlands in the middle of the survey area, may alter the hydrology and changes to surface water flows of the wetlands.</p>	Likely to be at variance to this Principle.	DoW (2016) EPA (2010)
(j) – Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding	<p>The soils in the north of the survey area are mostly sandy and porous and the area is generally well-drained. In the middle to the south of the survey area, the soils are composed of a loam and were inundated with water in some sections at the time of the survey. Seven Geomorphic Wetlands occur within the survey area, including two Conservation Category wetlands and five Multiple Use wetlands. A large Multiple Use wetland occurs over a large section of the south of the survey area.</p> <p>Clearing of the <i>Melaleuca</i> shrubland vegetation located within the Geomorphic Wetlands north of the Busselton Bypass for this project may cause and/or exacerbate the incidence or intensity of flooding in the local area.</p>	Likely to be at variance to this Principle.	DAFWA (2007) DoW (2016)

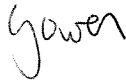
Principle	Assessment	Outcome	Data sources
	The survey area is susceptible to waterlogging due to several wetlands located throughout and the soils being composed of a loam, and not easily draining. Clearing is likely to cause and/or exacerbate waterlogging within the survey area.		

2.3 Recommendations

The following recommendations have been made regarding the proposal:

- Clearing of Black Cockatoo habitat should be avoided as far as practicable. Should the final upgrade works require clearing of any Black Cockatoo breeding habitat and/or clearing of >1 ha of foraging habitat, the proposal should be referred to the DotEE under the EPBC Act.
- Clearing of Western Ringtail Possum habitat should be avoided as far as practicable. Should the final upgrade works require clearing of any habitat of >0.5 ha of core and supportive habitat, the proposal should be referred to the DotEE under the EPBC Act. A management plan is also recommended to be developed for the clearing process.
- Disturbance to the Carters Mussel habitat (Vasse Drain) should be avoided as far as practicable. A management plan is also recommended to be developed for the clearing process.
- Clearing of the *Melaleuca* shrubland vegetation, associated with the Vasse Wonnerup System Ramsar Site and Conservation Category Wetlands should be avoided as far as practicable. A management plan is also recommended to be developed for the clearing process.
- Clearing of vegetation types Marri and Flooded Gum woodland and Peppermint woodland (total of 2.88 ha) should be avoided as far as practicable, as these vegetation types align with the DPaW Priority 1 listed PEC, *Eucalyptus rudis* (flooded gum), *Corymbia calophylla*, *Agonis flexuosa* Closed Low Forest (near Busselton).

Kind regards
GHD Pty Ltd



Gaynor Owen
Ecologist
+61 8 6222 8512

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