



## 1. Application details

### 1.1. Permit application details

Permit application No.: 804/1  
 Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Water Corporation (Water Corp)

### 1.3. Property details

Property: ROAD RESERVE ( SABINA RIVER 6280)  
 LOT 590 ON PLAN 126664 ( YALYALUP 6280)  
 LOT 1361 ON PLAN 256710 (House No. 33 WONNERUP EAST YALYALUP 6280)  
 LOT 1478 ON PLAN 140412 ( YOONGARILLUP 6280)  
 ROAD RESERVE ( YOGANUP 6275)  
 Local Government Area: Shire Of Busselton  
 Colloquial name: Vasse Hwy

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
0.66	95	Mechanical Removal Mechanical Removal	Dam construction or maintenance Road construction or maintenance

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Beard Vegetation Association 27: Low Woodland; paperbark (Melaleuca sp.) (Hopkins et al. 2001, Shepherd et al. 2001).	The proposal includes clearing of 95 native trees for construction of a compensation basin, and an additional 0.66ha for an upgrade of an access road to the proposed borrow pit.	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Observed during site visit: the majority of the area under application is parkland cleared with the ground cover dominated by pasture species (DEC Site Visit 2006).  24 individual trees have been marked for clearing along Piggott Rd, and some understorey will be removed. GHD (2006) indicate variable condition of the vegetation in this area from excellent to degraded. No clearing of the P1 species will occur.
Beard Vegetation Association 1136: Medium Woodland; marri with some jarrah, wandoo, river gum and casuarina (Hopkins et al. 2001, Shepherd et al. 2001).	The vegetation under application for the compensation basin is completely degraded, with no native understorey. Three tree species were noted: Corymbia calophylla, Eucalyptus rudis and Melaleuca sp. (DEC Site visit 2006).		
Mattiske Vegetation Complex AB (Abba): woodland and open forest of marri (Mattiske Consulting 1998).	The vegetation under application along the road reserve includes a woodland/forest on the plain, comprising Nuytsia floribunda, Corymbia haematoxylon, Agonis flexuosa, Corymbia calophylla, with sparse Xanthorrhoea preissii, Melaleuca sp. (DEC Site visit 2006). GHD (2006) indicated the vegetation to be highly variable condition between excellent and degraded.		
Mattiske Vegetation Complex Ad (Abba): woodland of marri - peppermint - sheoak - christmas tree (Mattiske Consulting 1998).			

### 3. Assessment of application against clearing principles

#### (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

**Comments** **Proposal may be at variance to this Principle**

The vegetation under application for the compensation basin is in a completely degraded state (DEC Site visit 2006, GHD 2005). Only three native tree species are present, and the area is predominately cleared with the ground cover dominated by pasture species. Graham (2004) indicated that the area under application was subject to heavy weed infestation, including taxa ranked as High Risk as environmental weeds.

GHD (2006) states that the condition of vegetation under application along Piggott Road varies from degraded to excellent condition. No threatened flora were observed during the surveys carried out within these areas (GHD 2006).

The vegetation representation for the area proposed to be cleared Abba has only 2% remaining. Given the low vegetation representation it is considered that the proposal clearing may be variance to this clearing principle.

**Methodology** DEC Site visit (2006);  
GHD (2006);  
GHD (2005);  
Graham (2004);  
GIS Databases:  
- Matiske Vegetation - CALM 23/3/98;  
- CALM Managed Lands and Waters - CALM 1/06/04

#### (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.

**Comments** **Proposal is not likely to be at variance to this Principle**

The clearing proposed for the compensation basin consists of several small areas totalling 95 native trees with no connectivity to larger remnants of native vegetation. During the site visit (DEC 2006) only three native tree species, *Corymbia calophylla*, *Eucalyptus rudis* and *Melaleuca* spp. were observed.

Graham (2004) indicated 'there appears to be no impediments to the project on the basis of the presence or specific habitat requirements of significant fauna'.

The high level of disturbance at the site, close proximity to a main road, extensive weed invasion and limited diversity of native species suggests that the original biodiversity and habitat value has been significantly compromised.

The clearing proposed along Piggott Road consists of approximately 24 native trees and associated understorey species with no connectivity to larger remnants of native vegetation.

The vegetation under application is therefore unlikely to provide a significant habitat for indigenous fauna.

**Methodology** DEC Site visit (2006);  
Graham (2004)

#### (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

**Comments** **Proposal is not likely to be at variance to this Principle**

There are twenty two Declared Rare Flora populations found within the local area (10km radius) of the proposed clearing. Graham (2004) indicates the presence of *Verticordia plumosa* var. *vassensis* (DRF) adjacent to the Sabina Diversion Drain, approximately 100-300m south of the area proposed for the compensation basin. Ministerial approval has been granted for the removal of up to 12 plants of the above mentioned species for the underlining purpose (CALM 2005). However, no DRF populations were observed within the area under application along Piggott Road (GHD 2006).

Five Priority 1 populations are found within the local area (10km radius). The closest, *Caustis* sp. *Boyanup*, is found 4.4km south west of the area proposed to be cleared for the basin, and 500m northwest of the area under application along Piggott Road (GHD 2006).

Seven Priority 2 populations are found within the local area (10km radius). The closest, *Leptomeria furtiva*, is located 6.9km south west of the area proposed to be cleared for the basin and 2.2km southwest of the area under application along Piggott Road (GHD 2006).

Sixteen Priority 3 populations are found within the local area (10km radius). *Grevillea brachystylis* subsp. *brachystylis* is found on the area proposed for the basin and drain, however Graham (2004) indicates that works in this area will not directly impact the species recorded in this area, as no clearing is proposed in the areas

which the above mentioned species have been identified. No P3 species were recorded along Piggott Road (GHD 2006).

There are seventeen Priority 4 populations found within the local area of the proposed clearing. The closest, *Chamelaucium erythrochlorum*, is located 3.5km south east of the area proposed to be cleared for the basin, and one population is found within the roadside of Piggott Road. GHD, 2006 indicated that no threatened flora were observed during the surveys carried out within these areas.

Therefore, the proposed clearing is unlikely to be at variance with this principle.

**Methodology** CALM, Permit to Take DRF (2005);  
GHD (2006);  
Graham (2004);  
GIS databases:  
- Declared Rare and Priority Flora List - CALM 13/08/03  
- Busselton 50cm Orthomosaic - DLI 03

**(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.**

**Comments Proposal is not likely to be at variance to this Principle**

There are twenty-three Threatened Ecological Communities (TEC) within the local area (10km radius), with the closest 3km south of the area proposed to be cleared for the basin (2.6km northeast of Piggott Road). This TEC is located in the same vegetation type as the area proposed for the basin. However, no TECs were recorded by GHD (2006) and Graham (2004) during their surveys of the areas proposed to be cleared.

**Methodology** GHD (2006)  
Graham (2004)  
GIS database:  
- Threatened Ecological Communities - CALM 15/7/03  
- Busselton 50cm Orthomosaic - DLI 03

**(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.**

**Comments Proposal is at variance to this Principle**

The application is located in the Swan Coastal Plain Bioregion in the Shire of Busselton. The extent of native vegetation in these areas is 41.8% and 44.5% respectively (Shepherd et al. 2001).

The vegetation of the area applied to clear is a component of Beard Unit 27 (Hopkins et al. 2001) of which there is 66.1% (Shepherd et al. 2001) of the pre-European extent remaining, and therefore of 'least concern' status for biodiversity conservation (Department of Natural Resources and Environment 2002).

The vegetation of the area applied to clear is a component of Beard Unit 1136 (Hopkins et al. 2001) of which there is 8.8% (Shepherd et al. 2001) of the pre-European extent remaining, and therefore of 'endangered' status for biodiversity conservation (Department of Natural Resources and Environment 2002).

The vegetation of the area applied to clear is a component of Mattiske Abba (AB) (Havel 2002) of which there is 2% of the pre-European extent remaining and therefore of a 'endangered' status for biodiversity conservation (Department of Natural Resources and Environment 2002).

The vegetation of the area applied to clear is also a component of Mattiske Abba (Aw) (Havel 2002) of which there is 2% of the pre-European extent remaining and therefore of a 'endangered' status for biodiversity conservation (Department of Natural Resources and Environment 2002).

The existing vegetation in the areas under application is in a fragmented state and varies from degraded to excellent condition.

Given the low vegetation representation the proposal is considered to be at variance with this principle. An offset conditions has been imposed.

**Methodology** Department of Natural Resources and Environment (2002)  
Havel (2002)  
Hopkins et al. (2001)  
Shepherd et al. (2001)  
GIS database:  
- Mattiske Vegetation - CALM 24/3/98  
- Interim Biogeographic Regionalisation of Australia - EM 18/10/00  
- Local Government Authorities - DLI 8/07/04

**(f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.**

**Comments Proposal may be at variance to this Principle**

The area proposed to be cleared is within a multiple use wetland. Multiple use wetlands have 'few important ecological attributes and functions remaining' (WRC 2001). This wetland is, however, completely degraded with the only remaining vegetation isolated paddock trees.

The Vasse River is located 3km west of the area proposed to be cleared for the compensation basin (8.7km west of Piggott Road).

The Sabina River is located 1.1km east of the area proposed to be cleared along Piggott Road (3km east of the basin).

There are three EPP lakes found within the local area of the proposed clearing. The closest is located 5.3km north of the area proposed to be cleared.

There is a RAMSAR wetland 5.5km north of the area proposed to be cleared.

There is an ANCA wetland 5.5km north of the area proposed to be cleared.

There are no vegetation links between the area proposed to be cleared and local watercourses and wetlands, therefore it is unlikely the proposed clearing is at variance with this principle.

**Methodology WRC (2001) Water and Rivers Commission Position Statement: Wetlands (6/6/01)**

GIS databases:

- ANCA, Wetlands - CALM 08/01
- EPP Lakes - DEP 28/07/03
- Geomorphic Wetlands (Mgt Categories) Swan Coastal Plain - DoE 15/9/04
- Hydrography Linear - DoE 1/2/04
- RAMSAR, Wetlands - CALM 21/10/02
- Busselton 50cm Orthomosaic - DLI 03

**(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.**

**Comments Proposal is not likely to be at variance to this Principle**

The area proposed to be cleared has a low Acid Sulphate Soils risk, a low salinity risk and a groundwater salinity of 500-1000 mg/L.

The clearing proposed is unlikely to cause land degradation due to its size.

**Methodology GIS database:**

- Acid Sulfate Soil Risk Map, SCP - DoE 01/02/04
- Salinity Risk LM 25m - DOLA 00.
- Groundwater Salinity, Statewide - 22/02/00

**(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.**

**Comments Proposal is not likely to be at variance to this Principle**

Several CALM Managed Lands are within the local area (10km radius), with the closest being Fish Road Nature Reserve, located 2.8km south south west of the area proposed to be cleared for the basin (4.2km northwest of Piggott Road). Several other Nature Reserves and State Forests are located within a 4km+ radius.

The Whicher National Park, Blackwood and Millbrook State Forests and a small timber reserve are all located between 500m-1km from the area under application along Piggott Road.

Two Registered National Estates are within the local area of both areas under application (10km radius) - the Ludlow-Wonnerup Area is located 4.5km north of the proposed basin (10km north of Piggott Road), and the Whicher Range Area is located 1.7km south of Piggott Road (8.6km south east of the basin).

Several System 1 areas are located approximately 5km north of the area proposed for the basin. The Whicher Range (System 1) is also located approximately 500m south of Piggott Road.

There are no vegetation links between the area proposed to be cleared and local conservation reserves,

therefore it is unlikely that the proposed clearing is at variance with this principle.

**Methodology** GIS database:  
 - CALM Managed Lands and Waters - CALM 1/06/04  
 - Register of National Estate - EA 28/01/03  
 - System 1-5 and 7-12 Areas - DEP 06/95  
 - Busselton 50cm Orthomosaic - DLI 03

**(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.**

**Comments** **Proposal is not likely to be at variance to this Principle**  
 The area proposed to be cleared is within the Upstream Vasse-Sabina hydrographic catchment area and the Busselton-Capel RIWI ground water area.  
  
 The quality of this groundwater resource is not likely to deteriorate as a result of the proposed clearing due to the size of proposed clearing.

**Methodology** GIS databases:  
 - Hydrographic Catchments, Catchments - DoE 3/4/03  
 - RIWI Act Groundwater Areas WRC 13/06/00

**(j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.**

**Comments** **Proposal is not likely to be at variance to this Principle**  
 Due to the scale of the proposed clearing, flooding impacts are unlikely to occur.

**Methodology** GIS databases:  
 - Topographic Contours, Statewide - DOLA 12/09/02

**Planning Instrument, Native Title, Previous EPA decision or other matter.**

**Comments**  
 The area proposed to be cleared is zoned general farming in the Town Planning Scheme.  
  
 The area proposed for the basin is not within a proclaimed surface water area, therefore a surface water licence is not required from the DoW.  
  
 The Shire of Busselton have no objections to the clearing proposed however advise that the following be taken into account:  
 1. That the clearing only be permitted for the areas required for construction of the dam wall.  
 2. The vegetation within the influence area of the dam provides important landscape values and potentially habitat values.  
 3. The road verge contains endangered and poorly represented vegetation communities.  
 4. Construction of the dam wall should not affect vegetation growing in the Vasse Highway road reserve.  
 5. There should be adequate setback from the highway to allow for the provision of a vegetation buffer to screen the dam wall from the road.  
  
 These issues have been addressed within the clearing principles and areas granted to be cleared and conditions imposed.  
  
 A local community group submitted a response to the proposal stating that they have no objection to the proposed clearing.

**Methodology** GIS database:  
 - Town Planning Scheme Zones - MFP 8/98

**4. Assessor's recommendations**

Purpose	Method	Applied area (ha)/ trees	Decision	Comment / recommendation
Dam construction or Removal maintenance	Mechanical	95	Grant	The proposal is considered to be at variance to principle (e) and may be at variance to principles (a) and (f). Conditions have been imposed to avoid, minimise clearing and to implement an appropriate offset.
Road construction or Removal maintenance	Mechanical	0.66	Grant	

## 5. References

- DEC Site Visit (2004). Department of Environment and Conservation, Bunbury.
- Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.
- EPA (2001) Environmental Protection of Wetlands. Preliminary Position Statement No.4. Perth, Western Australia.
- GHD (2005). Busselton Flood Protection Sabina Diversion Drain - Significant Flora Survey (Supplementary report), July 2005.
- GHD (2006). Upgrade of Yoongarillup and Piggott Roads - Significant Flora Survey, Busselton.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Mal Graham Environmental Services (2004). Flora Investigation - Busselton Flood Protection Project, Katanning.
- Mattiske Consulting (1998) Mapping of vegetation complexes in the South West forest region of Western Australia, CALM.
- 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.

## 6. Glossary

Term	Meaning
CALM	Department of Conservation and Land Management
DAWA	Department of Agriculture
DEP	Department of Environmental Protection (now DoE)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DoE)