

Our Ref: JT1 2011 12136v01  
Enquiries: Bree Atkinson  
Telephone: (08) 9420 2893



3 October 2014

Dr Paul Vogel  
Chairman  
Environmental Protection Authority  
Locked bag 10  
East Perth WA 6892

Dear Dr Vogel

Environmental Protection Authority	
File: <i>AC01-2014-0150</i>	
<i>2014-0000951448</i>	
<i>10 OCT 2014</i>	
A:	
fA:	
<input type="checkbox"/> General Manager	<input type="checkbox"/> For Information
<input type="checkbox"/> Dir.AC	<input type="checkbox"/> For Discussion
<input type="checkbox"/> Dir. SPPD	<input type="checkbox"/> For Consideration/ Advice
<input type="checkbox"/> Dir. Bus Ops	<input type="checkbox"/> Draft Response
<input type="checkbox"/> Exec Assist	<input type="checkbox"/> No Further Action

**RE: BALANNUP WASTEWATER PRESSURE MAIN REFERRAL UNDER S38 OF  
THE ENVIRONMENTAL PROTECTION ACT 1986**

The Water Corporation is pleased to refer the Balannup Wastewater Pressure Main proposal to the Environmental Protection Authority (EPA) under section 38 of *The Environmental Protection Act 1986* (EP Act).

The proposed Balannup Wastewater Pressure Main involves the construction and operation of a 4.5 km wastewater pressure main from the Collared Street Pump Station (PS) to the Waterworks Road PS in Armadale. The proposed pressure main is required to meet the increased capacity requirements within the Balannup Sewer District. Recent subdivision developments in suburbs such as Piara Waters, Southern River and Harrisdale, with the resultant population increase, mean that existing Water Corporation wastewater assets and their operating arrangement within the Balannup sewerage district are no longer adequate.

The proposed pressure main alignment intersects a number of environmentally sensitive areas including;

- Bush Forever Site 342;
- Gibbs Road Swamp System (Nationally Important Wetland);
- Conservation Category Wetlands; and
- Regionally significant Flora and Fauna

Based on the results of the flora and fauna survey undertaken during Spring 2012 it was determined the proposal is unlikely to have a significant impact on Matters of National Environmental Significance (MNES). The Flora and Fauna assessment undertaken by ENV during spring 2012 identified no federally listed Threatened Ecological Communities (TEC) within the proposed construction footprint. Accordingly the project was not referred under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

A TEC is present within the Bush Forever site 342 and is groundwater dependent. However as it is proposed to install the pipeline using trenchless technology, dewatering will not be required thereby substantially minimizing the potential impact on the TEC.



The Water Corporation considers that the construction of the proposed pressure main does not require formal assessment under part IV of the EP Act and can be appropriately managed in accordance with the management plans to be developed specifically for this proposal and in accordance with a clearing permit issued under Part V of the EP Act.

Please find enclosed the referral form, relevant supporting documentation and spatial data.

If you have any questions relating to the proposal please contact Bree Atkinson on 9420 2893 or by email [bree.atkinson@watercorporation.com.au](mailto:bree.atkinson@watercorporation.com.au).

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Rupert Duckworth', with a long horizontal flourish extending to the right.

Rupert Duckworth  
Manager EIA and Approvals  
Environment and Aboriginal Affairs Branch  
Water Corporation

*Encl:*            Attachment 1:        Section 38 Referral Form  
                         Attachment 2:        Supporting Documentation including Appendices  
                         Spatial Data:         Pipeline alignment



BALANNUP WASTE WATER  
PRESSURE MAIN

ATTACHMENT 1  
SECTION 38 REFERRAL FORM





**Environmental Protection Authority**

**EPA REFERRAL  
FORM  
PROPONENT**

**Referral of a Proposal by the Proponent to the Environmental Protection Authority under Section 38(1) of the *Environmental Protection Act 1986*.**

**PURPOSE OF THIS FORM**

Section 38(1) of the *Environmental Protection Act 1986* (EP Act) provides that where a development proposal is likely to have a significant effect on the environment, a proponent may refer the proposal to the Environmental Protection Authority (EPA) for a decision on whether or not it requires assessment under the EP Act. This form sets out the information requirements for the referral of a proposal by a proponent.

Proponents are encouraged to familiarise themselves with the EPA's *General Guide on Referral of Proposals* [see Environmental Impact Assessment/Referral of Proposals and Schemes] before completing this form.

A referral under section 38(1) of the EP Act by a proponent to the EPA must be made on this form. A request to the EPA for a declaration under section 39B (derived proposal) must be made on this form. This form will be treated as a referral provided all information required by Part A has been included and all information requested by Part B has been provided to the extent that it is pertinent to the proposal being referred. Referral documents are to be submitted in two formats – hard copy and electronic copy. The electronic copy of the referral will be provided for public comment for a period of 7 days, prior to the EPA making its decision on whether or not to assess the proposal.

**CHECKLIST**

Before you submit this form, please check that you have:

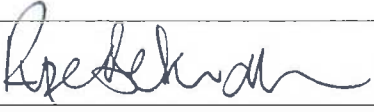
	Yes	No
Completed all the questions in Part A (essential).	✓	
Completed all applicable questions in Part B.	✓	
Included Attachment 1 – location maps.	✓	
Included Attachment 2 – additional document(s) the proponent wishes to provide (if applicable).	✓	
Included Attachment 3 – confidential information (if applicable).		✓
Enclosed an electronic copy of all referral information, including spatial data and contextual mapping but excluding confidential information.	✓	

Following a review of the information presented in this form, please consider the following question (a response is optional).

Do you consider the proposal requires formal environmental impact assessment?		
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not sure
If yes, what level of assessment?		
<input type="checkbox"/> Assessment on Proponent Information	<input type="checkbox"/> Public Environmental Review	

**PROPONENT DECLARATION** (to be completed by the proponent)

I, Rupert Duckworth, declare that I am authorised on behalf of the Water Corporation (being the person responsible for the proposal) to submit this form and further declare that the information contained in this form is true and not misleading.

Signature: 	Name: Rupert Duckworth
Position: Manager EIA & Approvals	Company: Water Corporation
Date: 2/10/2014	



**PART A - PROPONENT AND PROPOSAL INFORMATION**

(All fields of Part A must be completed for this document to be treated as a referral)

**1 PROPONENT AND PROPOSAL INFORMATION**

**1.1 Proponent**

Name	Water Corporation
Joint Venture parties (if applicable)	Not Applicable
Australian Company Number (if applicable)	ABN: 28 003 434 917
Postal Address (where the proponent is a corporation or an association of persons, whether incorporated or not, the postal address is that of the principal place of business or of the principal office in the State)	PO Box 100 Leederville WA 6902
Key proponent contact for the proposal: <ul style="list-style-type: none"><li>• name</li><li>• address</li><li>• phone</li><li>• email</li></ul>	Bree Atkinson Water Corporation 629 Newcastle St Leederville WA 6007 Ph: 9420 2893 Bree.atkinson@watercorporation.com.au

**1.2 Proposal**

Title	Balannup Wastewater Pressure Main
Description	The construction and operation of a 4.5 km wastewater pressure main connecting Collared Road Wastewater Pump Station (WWPS) and Waterworks Road WWPS. "Trenchless" technology will be used to install 1.5km of the pressure main through an Environmentally Sensitive Area. (See Attachment 2 Section 3.1)
Extent (area) of proposed ground disturbance.	Temporary impact on approximately 3.6 ha (assuming 10 m construction width for 3 km and 4m construction width through the Bush Forever for 1.5km). Less than 0.1 ha of native vegetation will be disturbed.
Timeframe in which the activity or development is proposed to occur (including start and finish dates where applicable).	Construction and commissioning is programmed for 2015
Details of any staging of the proposal.	No staging
Is the proposal a strategic proposal?	No
Is the proponent requesting a declaration that the proposal is a derived proposal? If so, provide the following information on the strategic assessment within which the referred proposal was identified: <ul style="list-style-type: none"><li>• title of the strategic assessment;</li><li>and</li><li>• Ministerial Statement number.</li></ul>	No

<p>Please indicate whether, and in what way, the proposal is related to other proposals in the region.</p>	<p>This proposal is not related to any other proposal in the region.</p>
<p>Does the proponent own the land on which the proposal is to be established? If not, what other arrangements have been established to access the land?</p>	<p>No the Water Corporation does not own all of the land for this proposal. The Water Corporation will liaise with vesting authorities to obtain access as required.</p> <p>The land with Bush Forever site 342 is owned by WAPC and is managed by DPaW for the State of Western Australia. Consultation with WAPC has commenced and an in principle agreement for the Water Corporation to access WAPC land has been reached (Attachment 2, Appendix F)</p> <p>The remainder of the land on which the proposal is to be established is within existing road reserves.</p>
<p>What is the current land use on the property, and the extent (area in hectares) of the property?</p>	<p>Land use is either existing road or proposed road along the length of the proposed pressure main. The initial 1 km section from the Collared Road WWPS to Skeet Road is a built road. The section between Skeet Road and Anstey Road is the proposed, but as yet unbuilt section of Keane Road. This section is within Bush Forever site 342. The final 2 km to Waterworks Rd WWPS is along existing road (Keane Road and Hanlin Road), with a crossing at Armadale Road and Tonkin Highway.</p>

### 1.3 Location

Name of the Shire in which the proposal is located.	City of Armadale
For urban areas: <ul style="list-style-type: none"> <li>• street address;</li> <li>• lot number;</li> <li>• suburb; and</li> <li>• nearest road intersection.</li> </ul>	Keane Road, Armadale (Nicholson Road to Armadale Road) Hanlin Road (Armadale Road to Tonkin Highway)
For remote localities: <ul style="list-style-type: none"> <li>• nearest town; and</li> <li>• distance and direction from that town to the proposal site.</li> </ul>	
Electronic copy of spatial data - GIS or CAD, geo-referenced and conforming to the following parameters: <ul style="list-style-type: none"> <li>• GIS: polygons representing all activities and named;</li> <li>• CAD: simple closed polygons representing all activities and named;</li> <li>• datum: GDA94;</li> <li>• projection: Geographic (latitude/longitude) or Map Grid of Australia (MGA);</li> <li>• format: Arcview shapefile, Arcinfo coverages, Microstation or AutoCAD.</li> </ul>	Enclosed?: Yes /No

### 1.4 Confidential Information

Does the proponent wish to request the EPA to allow any part of the referral information to be treated as confidential?	Yes/ No
If yes, is confidential information attached as a separate document in hard copy?	NA

### 1.5 Government Approvals

Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.		Yes / No	
Is approval required from any Commonwealth or State Government agency or Local Authority for any part of the proposal? If yes, please complete the table below.		Yes / No	
Agency/Authority	Approval required	Application lodged Yes / No	Agency/Local Authority contact(s) for proposal
City of Armadale/WAPC	Development Approval	No – Awaiting Environmental Approvals	
WAPC	Land access within Bush Forever site	Yes	Alex Harrison (6551 9420)
Department of Environment Regulation	Clearing Permit	No	

## PART B - ENVIRONMENTAL IMPACTS AND PROPOSED MANAGEMENT

### 2. ENVIRONMENTAL IMPACTS

Describe the impacts of the proposal on the following elements of the environment, by answering the questions contained in Sections 2.1-2.11:

- 2.1 flora and vegetation;
- 2.2 fauna;
- 2.3 rivers, creeks, wetlands and estuaries;
- 2.4 significant areas and/ or land features;
- 2.5 coastal zone areas;
- 2.6 marine areas and biota;
- 2.7 water supply and drainage catchments;
- 2.8 pollution;
- 2.9 greenhouse gas emissions;
- 2.10 contamination; and
- 2.11 social surroundings.

These features should be shown on the site plan, where appropriate.

For all information, please indicate:

- (a) the source of the information; and
- (b) the currency of the information.

#### 2.1 Flora and Vegetation

2.1.1 Do you propose to clear any native flora and vegetation as a part of this proposal?

[A proposal to clear native vegetation may require a clearing permit under Part V of the EP Act (Environmental Protection (Clearing of Native Vegetation) Regulations 2004)]. Please contact the Department of Environment and Conservation (DEC) for more information.

- (please tick)     Yes            **If yes**, complete the rest of this section.  
                          No                **If no**, go to the next section

2.1.2 How much vegetation are you proposing to clear (in hectares)?

0.1 ha of native vegetation is proposed to be temporarily cleared within Bush Forever site 342 with minor pruning and trampling along the existing fire access track. More details about the vegetation impacts are included in Section 6.2 of Attachment 2.

2.1.3 Have you submitted an application to clear native vegetation to the DEC (unless you are exempt from such a requirement)?

- Yes                 No            **If yes**, on what date and to which office was the application submitted of the DEC?

Are you aware of any recent flora surveys carried out over the area to be disturbed by this proposal?

Yes

No

If **yes**, please attach a copy of any related survey reports and provide the date and name of persons / companies involved in the survey(s).

If **no**, please do not arrange to have any biological surveys conducted prior to consulting with the DEC.

A Flora, Vegetation and Fauna Assessment was undertaken in 2012 by ENV for this Proposal. See Section 6.2 and Appendix D of Attachment 2.

2.1.4 Has a search of DEC records for known occurrences of rare or priority flora or threatened ecological communities been conducted for the site?

Yes

No

If you are proposing to clear native vegetation for any part of your proposal, a search of DEC records of known occurrences of rare or priority flora and threatened ecological communities will be required. Please contact DEC for more information.

The review of previous surveys and DEC database searches identified 26 threatened and Priority flora previously recorded within 5 km of the study area. Of these six were listed as threatened taxa, four P1 taxa, one P2 taxa, five P3 taxa and ten P4 taxa (Env 2012).

2.1.5 Are there any known occurrences of rare or priority flora or threatened ecological communities on the site?

Yes

No

If **yes**, please indicate which species or communities are involved and provide copies of any correspondence with DEC regarding these matters.

No Threatened Species were recorded during the survey. One Priority Flora Species, *Jacksonia gracillima* (Priority 3) was recorded in the recent survey. See Section 6.2 of Attachment 2.

2.1.6 If located within the Perth Metropolitan Region, is the proposed development within or adjacent to a listed Bush Forever Site? (You will need to contact the Bush Forever Office, at the Department for Planning and Infrastructure)

Yes

No

If **yes**, please indicate which Bush Forever Site is affected (site number and name of site where appropriate).

The section of the proposal between Skeet Road and Anstey Road is within Bush Forever site 342 (Anstey/Keane Dampland and Adjacent Bushland, Forrestdale).

2.1.7 What is the condition of the vegetation at the site?

Vegetation condition ranged from Completely Degraded to Excellent. The proposal follows an existing degraded track through much of Bush Forever site 342, however some vegetation in Excellent condition (0.1 ha) will be impacted within the Bush Forever site along the edge of this track. The remaining alignment, outside Bush Forever Site 342 does not contain native vegetation and is considered completely degraded.

## 2.2 Fauna

2.2.1 Do you expect that any fauna or fauna habitat will be impacted by the proposal?

- (please tick)       Yes      **If yes**, complete the rest of this section.  
 No      **If no**, go to the next section.

2.2.2 Describe the nature and extent of the expected impact.

There will be the loss of potential black cockatoo habitat due to the clearing of 0.1 ha native vegetation during construction. A fauna management plan will be implemented during construction to prevent further loss of habitat and minimise the risk of fauna mortality.

2.2.3 Are you aware of any recent fauna surveys carried out over the area to be disturbed by this proposal?

- Yes       No      **If yes**, please attach a copy of any related survey reports and provide the date and name of persons / companies involved in the survey(s).  
**If no**, please do not arrange to have any biological surveys conducted prior to consulting with the DEC.

The fauna survey report is attached in Attachment 2, Appendix D.

2.2.4 Has a search of DEC records for known occurrences of Specially Protected (threatened) fauna been conducted for the site?

- Yes       No      (please tick)

2.2.5 Are there any known occurrences of Specially Protected (threatened) fauna on the site?

- Yes       No      **If yes**, please indicate which species or communities are involved and provide copies of any correspondence with DEC regarding these matters.

Whilst they have not been recorded within the proposal area, it is expected that all three species of threatened black cockatoos will utilise habitat within Bush Forever site 342.

## 2.3 Rivers, Creeks, Wetlands and Estuaries

2.3.1 Will the development occur within 200 metres of a river, creek, wetland or estuary?

- (please tick)       Yes      **If yes**, complete the rest of this section.  
 No      **If no**, go to the next section.

2.3.2 Will the development result in the clearing of vegetation within the 200 metre zone?

- Yes       No      **If yes**, please describe the extent of the expected impact.

The extent of vegetation clearing within 200 m of a wetland will not exceed 0.1 ha and will be temporary.

2.3.3 Will the development result in the filling or excavation of a river, creek, wetland or estuary?

Yes       No      **If yes**, please describe the extent of the expected impact.

The proposal will involve the ploughing and burying of a wastewater pressure main. The 450 mm pipe will be buried at least 900 mm below the existing ground surface.

Within the Bush Forever site, the pipe would be laid using the EcoPlough process where:

- A large plough loosens the surface soil within a 4m corridor
- The pipe is laid into the soft ground
- The soil is re-compacted on top of the pipe
- Construction within the Bush Forever site takes less than a week.

Advantages of this method are that there is no dewatering required, there is no open trench which may trap small fauna and the corridor of disturbance is very narrow. The soil profile integrity will be maintained through this methodology, as there will be minimal mixing between layers. Any potential acid sulfate soil will remain at depth and is unlikely to be exposed to oxygen.

Refer to Attachment 2 for further details on the EcoPlough methodology.

2.3.4 Will the development result in the impoundment of a river, creek, wetland or estuary?

Yes       No      **If yes**, please describe the extent of the expected impact.



2.3.5 Will the development result in draining to a river, creek, wetland or estuary?

Yes       No      **If yes**, please describe the extent of the expected impact.

Works will occur in summer and autumn, in order to minimise or avoid the requirement to dewater. Dewatering will not be required for the laying of the pressure main using the EcoPlough system within the bush forever site. Outside the Bush Forever site, conventional trenching will be used to lay the pressure main. Trenching may involve dewatering. This will not have an impact upon vegetation within the Bush forever site through drawdown due to the timing of construction. A dewatering management plan has been prepared for this project (Attachment 2, Appendix C).

2.3.6 Are you aware if the proposal will impact on a river, creek, wetland or estuary (or its buffer) within one of the following categories? (please tick)

Conservation Category Wetland	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Environmental Protection (South West Agricultural Zone Wetlands) Policy 1998	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
Perth's Bush Forever site	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Unsure
Environmental Protection (Swan & Canning Rivers) Policy 1998	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
The management area as defined in s4(1) of the <i>Swan River Trust Act 1988</i>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure
Which is subject to an international agreement, because of the importance of the wetland for waterbirds and waterbird habitats (e.g. Ramsar, JAMBA, CAMBA)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Unsure

2.4 Significant Areas and/ or Land Features

2.4.1 Is the proposed development located within or adjacent to an existing or proposed National Park or Nature Reserve?

Yes       No      **If yes**, please provide details.

2.4.2 Are you aware of any Environmentally Sensitive Areas (as declared by the Minister under section 51B of the EP Act) that will be impacted by the proposed development?

Yes       No      **If yes**, please provide details.

The section of the proposal from Skeet Road to Waterworks Rd WSPS is within a declared ESA.

The area is an ESA due to being within the Bush Forever site, conservation category wetlands and being partially within the Gibbs Road Swamp System, a nationally important wetland.

2.4.3 Are you aware of any significant natural land features (e.g. caves, ranges etc) that will be impacted by the proposed development?

Yes      ✓ No      **If yes**, please provide details.

## 2.5 Coastal Zone Areas (Coastal Dunes and Beaches)

2.5.1 Will the development occur within 300metres of a coastal area?

(please tick)       Yes      **If yes**, complete the rest of this section.  
   ✓ No      **If no**, go to the next section.

2.5.2 What is the expected setback of the development from the high tide level and from the primary dune?

2.5.3 Will the development impact on coastal areas with significant landforms including beach ridge plain, cusped headland, coastal dunes or karst?

Yes       No      **If yes**, please describe the extent of the expected impact.

2.5.4 Is the development likely to impact on mangroves?

Yes       No      **If yes**, please describe the extent of the expected impact.

## 2.6 Marine Areas and Biota

2.6.1 Is the development likely to impact on an area of sensitive benthic communities, such as seagrasses, coral reefs or mangroves?

Yes      ✓ No      **If yes**, please describe the extent of the expected impact.

2.6.2 Is the development likely to impact on marine conservation reserves or areas recommended for reservation (as described in *A Representative Marine Reserve System for Western Australia*, CALM, 1994)?

Yes      ✓ No      **If yes**, please describe the extent of the expected impact.

2.6.3 Is the development likely to impact on marine areas used extensively for recreation or for commercial fishing activities?

Yes      ✓ No      **If yes**, please describe the extent of the expected impact, and provide any written advice from relevant agencies (e.g. Fisheries WA).

## 2.7 Water Supply and Drainage Catchments

### 2.7.1 Are you in a proclaimed or proposed groundwater or surface water protection area?

(You may need to contact the Department of Water (DoW) for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

Yes       No      **If yes**, please describe what category of area.

Yes the proposal lies within a proclaimed groundwater protection area (Perth Groundwater Area).

The power given to the Water Corporation by Section 139(2)(a) of the *Water Services Act 2012* overrides the generic requirements of Sections 5C and 26D of the *Rights in Water and Irrigation Act 1914* and therefore the Water Corporation is exempt from the requirement to obtain a dewatering license.

### 2.7.2 Are you in an existing or proposed Underground Water Supply and Pollution Control area?

(You may need to contact the DoW for more information on the requirements for your location, including the requirement for licences for water abstraction. Also, refer to the DoW website)

Yes       No      **If yes**, please describe what category of area.

The proposal is 4.6 km east of the Jandakot Underground Water Pollution Control Area.

### 2.7.3 Are you in a Public Drinking Water Supply Area (PDWSA)?

(You may need to contact the DoW for more information or refer to the DoW website. A proposal to clear vegetation within a PDWSA requires approval from DoW.)

Yes       No      **If yes**, please describe what category of area.

The proposal is 4.6 km east of the Jandakot Underground Water Pollution Control Area.

### 2.7.4 Is there sufficient water available for the proposal?

(Please consult with the DoW as to whether approvals are required to source water as you propose. Where necessary, please provide a letter of intent from the DoW)

Yes       No      (please tick)

### 2.7.5 Will the proposal require drainage of the land?

Yes       No      **If yes**, how is the site to be drained and will the drainage be connected to an existing Local Authority or Water Corporation drainage system? Please provide details.

Dewatering may be required during construction, in areas outside of the Bush Forever site (see Section 6.5 of Attachment 2). Construction outside of the Bush Forever site will use conventional trenching technology to lay the pressure main and may require dewatering during excavation.

### 2.7.6 Is there a water requirement for the construction and/ or operation of this proposal?

(please tick)

Yes

**If yes**, complete the rest of this section.

No

**If no**, go to the next section.

2.7.7 What is the water requirement for the construction and operation of this proposal, in kilolitres per year?

Water will be required to pressure test the pipeline once installed. No water is required during operation.

2.7.8 What is the proposed source of water for the proposal? (e.g. dam, bore, surface water etc.)

Potable water will be sourced from Water Corporation owned assets.

## 2.8 Pollution

2.8.1 Is there likely to be any discharge of pollutants from this development, such as noise, vibration, gaseous emissions, dust, liquid effluent, solid waste or other pollutants?

(please tick)       Yes      **If yes**, complete the rest of this section.

No      **If no**, go to the next section.

See section 2.8.9

2.8.2 Is the proposal a prescribed premise, under the Environmental Protection Regulations 1987?

(Refer to the EPA's *General Guide for Referral of Proposals to the EPA under section 38(1) of the EP Act 1986* for more information)

Yes       No      **If yes**, please describe what category of prescribed premise.

2.8.3 Will the proposal result in gaseous emissions to air?

Yes       No      **If yes**, please briefly describe.

2.8.4 Have you done any modelling or analysis to demonstrate that air quality standards will be met, including consideration of cumulative impacts from other emission sources?

Yes       No      **If yes**, please briefly describe.

2.8.5 Will the proposal result in liquid effluent discharge?

Yes       No      **If yes**, please briefly describe the nature, concentrations and receiving environment.

Construction: The pressure test water will either be infiltrated outside the bush forever section or will be discharged to a nearby existing sewer.

Operation: There will be no discharge outlets (scour/air valves) installed along the wastewater pressure main.

2.8.6 If there is likely to be discharges to a watercourse or marine environment, has any analysis been done to demonstrate that the State Water Quality Management Strategy or other appropriate standards will be able to be met?

Yes       No      **If yes**, please describe.

There will be no discharges to watercourses or the marine environment.

2.8.7 Will the proposal produce or result in solid wastes?

Yes      ✓ No      If **yes**, please briefly describe the nature, concentrations and disposal location/ method.

2.8.8 Will the proposal result in significant off-site noise emissions?

Yes      ✓ No      If **yes**, please briefly describe.

2.8.9 Will the development be subject to the Environmental Protection (Noise) Regulations 1997?

✓ Yes       No      If **yes**, has any analysis been carried out to demonstrate that the proposal will comply with the Regulations?

Please attach the analysis.

Construction works will be subject to the *Environmental Protection (Noise) Regulations 1997*. During operation the proposal will not be subject to the *Environmental Protection (Noise) Regulations 1997*.

2.8.10 Does the proposal have the potential to generate off-site, air quality impacts, dust, odour or another pollutant that may affect the amenity of residents and other "sensitive premises" such as schools and hospitals (proposals in this category may include intensive agriculture, aquaculture, marinas, mines and quarries etc.)?

Yes      ✓ No      If **yes**, please describe and provide the distance to residences and other "sensitive premises".

2.8.11 If the proposal has a residential component or involves "sensitive premises", is it located near a land use that may discharge a pollutant?

Yes       No      ✓ Not Applicable

If **yes**, please describe and provide the distance to the potential pollution source

## 2.9 Greenhouse Gas Emissions

2.9.1 Is this proposal likely to result in substantial greenhouse gas emissions (greater than 100 000 tonnes per annum of carbon dioxide equivalent emissions)?

Yes      ✓ No      If **yes**, please provide an estimate of the annual gross emissions in absolute and in carbon dioxide equivalent figures.

2.9.2 Further, if yes, please describe proposed measures to minimise emissions, and any sink enhancement actions proposed to offset emissions.

## 2.10 Contamination

2.10.1 Has the property on which the proposal is to be located been used in the past for activities which may have caused soil or groundwater contamination?

Yes      ✓ No       Unsure      **If yes, please describe.**

2.10.2 Has any assessment been done for soil or groundwater contamination on the site?

Yes      ✓ No      **If yes, please describe.**

2.10.3 Has the site been registered as a contaminated site under the *Contaminated Sites Act 2003*? (on finalisation of the CS Regulations and proclamation of the CS Act)

Yes      ✓ No      **If yes, please describe.**

## 2.11 Social Surroundings

2.11.1 Is the proposal on a property which contains or is near a site of Aboriginal ethnographic or archaeological significance that may be disturbed?

Yes      ✓ No       Unsure      **If yes, please describe.**

A search of the Department of Aboriginal Affairs Aboriginal Heritage Inquiry System was conducted. No known registered sites or other heritage sites occur within the proposal.

Two registered Aboriginal heritage sites occur in close proximity to the terminus of the proposal within the Waterworks Rd WSPS (Brookfield Archaeological Site 001 & 002).

The Water Corporation has consulted with the Department of Aboriginal Affairs and the South West Aboriginal Land and Sea Council (SWALSC). SWALSC acknowledged receipt of the letter, but did not provide comment.

2.11.2 Is the proposal on a property which contains or is near a site of high public interest (e.g. a major recreation area or natural scenic feature)?

✓ Yes       No      **If yes, please describe.**

The Bush Forever site is an area of high public interest as it has a Friends group and the community value it highly. The proposal has been designed to have minimal long term impacts on the bush forever site. Once the pipe is buried it will not be noticeable to visitors to the site.

2.11.3 Will the proposal result in or require substantial transport of goods, which may affect the amenity of the local area?

Yes      ✓ No      **If yes, please describe.**

### 3. PROPOSED MANAGEMENT

#### 3.1 Principles of Environmental Protection

3.1.1 Have you considered how your project gives attention to the following Principles, as set out in section 4A of the EP Act? (For information on the Principles of Environmental Protection, please see EPA Position Statement No. 7, available on the EPA website)

- |  |   |                             |
|--|---|-----------------------------|
| 1. The precautionary principle.  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. The principle of intergenerational equity.  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. The principle of the conservation of biological diversity and ecological integrity. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Principles relating to improved valuation, pricing and incentive mechanisms.        | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. The principle of waste minimisation.  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No |

See Section 5 of Attachment 2 for further detail.

3.1.2 Is the proposal consistent with the EPA's Environmental Protection Bulletins/Position Statements and Environmental Assessment Guidelines/Guidance Statements (available on the EPA website)?

- Yes       No

#### 3.2 Consultation

3.2.1 Has public consultation taken place (such as with other government agencies, community groups or neighbours), or is it intended that consultation shall take place?

- Yes       No      If **yes**, please list those consulted and attach comments or summarise response on a separate sheet.

Water Corporation has conducted consultation with relevant government agencies, local and state politicians, the City of Armadale and a number of interest groups regarding the Balannup Wastewater Pressure Main. A summary of the stakeholder consultation conducted is included in Section 7 of Attachment 2. This includes a summary of the main issues raised by stakeholders and how Water Corporation has addressed the issues.