GOVERNMENT OF WESTERN AUSTRALIA

Environmental Protection Authority

EPA REFERRAL FORM

Referral of a Proposal to the Environmental Protection Authority under Section 38 of the *Environmental Protection Act 1986*.

PURPOSE OF THIS FORM

Section 38 of the *Environmental Protection Act 1986* (EP Act) makes provision for the referral to the Environmental Protection Authority (EPA) of a proposal (significant proposals, strategic proposals and proposals under an assessed scheme) by a proponent, a decision making authority (DMA), or any other person.

The purpose of this form is to ensure that EPA has sufficient information about a proposal to make a decision about the nature of the proposal and whether or not the proposal should be assessed under Part IV of the EP Act. Information provided in the referral form must be brief (no more than 30 pages), sharp and succinct to achieve the purposes of this form.

This form does not prevent the referrer from providing a supplementary referral report. Should a referrer choose to submit a supplementary referral report please ensure the following.

i. Information is short, sharp and succinct.
ii. Attachments are below eight megabytes (8 MB) as they will be published on the EPA's website (exemptions apply) for public comment. To minimise file size, "flatten" maps and optimise pdf files.
iii. Cross-references are provided in the referral form to the appropriate section/s in the supplementary referral report.

This form is to be used for all proposals[1] which can be referred to the EPA under section 38 of the EP Act; i.e. referrals from: **proponents** of proposals (significant proposals, strategic proposals, derived proposals, proposals under an assessed scheme); **DMAs** (significant proposals); and **third parties** (significant proposals).

This form is divided into several sections, including; Referral requirements and Declaration; Part A - Information of the proposal and proponent; and Part B Environmental Factors. Guidance on successfully completing this form is provided throughout the form and is also available in the EPA's *Environmental Assessment Guideline for Referral of a Proposal under s38 of the EP Act (EAG 16)*.

Send completed forms to
Office of the Environmental Protection Authority
Locked Bag 10, East Perth WA 6892

or

Email: Registrar@epa.wa.gov.au

Enquiries
Office of the Environmental Protection Authority
Locked Bag 10, East Perth WA 6892
Telephone: 6145 0800
Fax: 6145 0895
Email: info@epa.wa.gov.au
Website: www.epa.wa.gov.au

[1] Please note that this form consolidates and replaces the following forms: *Referral of a Proposal by the Proponent to the EPA under section 38(1) of the EP Act*; *Referral of a Proposal by a third party to the EPA under section 38(1) of the EP Act*; and *Referral of a development proposal to the EPA by the decision making authority*.

Referral requirements and Declaration

The following section outlines the referral information required from a proponent, decision making authority and third party.

(a) Proponents

Proponents are expected to complete all sections of the form and provide GIS spatial data to enable the EPA to consider the referral. Spatial GIS data is necessary to inform the EPA's decision.

The EPA expects that a proponent will address Part B of the form as thoroughly as possible to demonstrate whether or not the EPA's objectives for environmental factors can be met.

If insufficient information is provided the EPA will request more information and processing of the referral will commence once the information is provided or the EPA decides to make a precautionary determination on the available information.

Proponent to complete before submitting form	
Completed all the questions in Part A (essential)	√ Yes ☐ No
Completed all the questions in Part B	√ Yes ☐ No
Completed all other applicable questions	√ Yes ☐ No
Included Attachment 1 – any additional document(s) the proponent wishes to provide	√ Yes ☐ No
Included Attachment 2 – confidential information (if applicable)	☐ Yes ☐ No N/A
Enclosed an electronic copy of all referral information, including spatial data and contextual mapping but clearly separating any confidential information	√ Yes ☐ No
Completed the Declaration	√ Yes ☐ No
What is the type of proposal being referred? ** a referred proposal seeking to be declared a derived proposal*	√ significant ☐ strategic ☐ derived* ☐ under an assessed scheme
Do you consider the proposal requires formal environmental impact assessment?	☐ Yes √ No
If yes, what level of assessment? *API = Assessment of Proponent Information* *PER = Public Environmental Review*	☐ API Category A ☐ API Category B ☐ PER

NB: The EPA may apply an Assessment on Proponent Information (API) level of assessment when the proponent has provided sufficient information about:

- the proposal;
- the proposed environmental impacts;
- the proposed management of the environmental impacts; and
- when the proposal is consistent with API criteria outlined in the *Environmental Impact Assessment (Part IV Division 1 and 2) Administrative Procedures 2012*.

If an API A formal level of assessment is considered appropriate, please refer to Environmental Assessment Guideline No. 14 *Preparation for an Assessment on Proponent Information (Category A) Environmental Review Document EAG 14* (EAG14).

Declaration

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 Roni Oma		Name (print) RONI OMA Rupert Duckworth for RUPERT DUCKWORTH		
Position	Environmental Impact Assessment & Approvals Manager	Organisation	Water Corporation	
Email	Rupert.Duckworth@watercorporation.com.au			
Address	629	Newcastle Street		
	Leederville		WA	6007
Date	11th May 2015			

(b) Decision-making authority

The EPA expects decision-making authorities to complete applicable sections of Part A of the form and provide the proponent an opportunity to provide additional information in Part B of the form where appropriate.

Wherever possible the DMA should obtain relevant spatial information from the proponent and provide this to the EPA with the referral.

DMA to complete before submitting form	
Completed all the questions in Part A (essential)	☐ Yes ☐ No
Provided Part B to the proponent for completion	☐ Yes ☐ No
Completed all other applicable questions	☐ Yes ☐ No
Included Attachment 1 – any supporting information	☐ Yes ☐ No
Enclosed an electronic copy of all referral information, including spatial data and contextual mapping	☐ Yes ☐ No
Completed the below Declaration	☐ Yes ☐ No
Do you consider the proposal requires formal environmental impact assessment?	☐ Yes ☐ No
What is the type of proposal being referred?	☐ significant proposal ☐ significant proposal under an assessed scheme

Declaration

I, ……., *(full name)* submit this referral to the EPA for consideration of the environmental significance of its impacts.

Signature		Name (print)	
Position		Organisation	
Email			
Address			
Date			

(c) Third Party

Third parties are asked to have consideration for the Significance Test outlined in Part A Section 1.5 of this form before referring a significant proposal to the EPA. The EPA will only consider proposals that are likely, if implemented, to have a significant effect on the environment.

Third parties are to provide sufficient information to clearly identify the significant proposal, the proponent, and their reasons for referring the proposal. This can be done by completing as much of Part A of the form as possible, taking into consideration the information available. Third parties may wish to fill in Part B of the form to advance their own views of the significance of the environmental impacts and the need for EPA assessment.

In most cases the EPA will seek additional information from the proponent. This will be to confirm or amend the identity of the proponent, the proposal, and to allow the proponent opportunity to provide its views on the significance of the environmental impacts and the need for EPA assessment.

Third Party to complete before submitting form	
Complete all applicable questions in Part A and B	☐ Yes ☐ No
Completed the Declaration	☐ Yes ☐ No
Do you consider the proposal requires formal environmental impact assessment?	☐ Yes ☐ No

Declaration

I, ……., *(full name)* submit this referral to the EPA for consideration of the environmental significance of its impacts.

Signature		Name (print)	
Email			
Position		Organisation	
Address	Street No.	Street Name	
	Suburb	State	Postcode
Date			

PART A: Information on the proposal and the proponent

All fields of Part A must be completed by the proponent and/or decision-making authority for this document to be processed as a referral. Third party referrers are only expected to fill in the fields they have information for.

1 PROPONENT AND PROPOSAL DESCRIPTION

1.1 The proponent of the proposal

Proponent and/or DMA to complete	
Name of the proponent	Water Corporation
Joint Venture parties (if applicable)	N/A
Australian Company Number(s) (if applicable)	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)*	629 Newcastle Street Leederville Western Australia 6007
Key proponent contact for the proposal *Please include: name; physical address; phone; and email.*	Rupert Duckworth Manager EIA & Approvals Environment and Aboriginal Affairs Water Corporation 629 Newcastle Street Leederville WA 6007 (08) 9420 3069 Rupert.Duckworth@watercorporation.com.au
Consultant for the proposal (if applicable) *Please include: name; physical address; phone; and email.*	N/A

1.2 Proposal

Proposal is defined under the EP Act to mean a "project, plan, programme policy, operation, undertaking or development or change of land use, or amendment of any of the foregoing, but does not include scheme". Before completing this section please refer to Environmental Protection Bulletin 17 – Strategic and derived proposals (EPB 17) and Environmental Assessment Guideline for Defining the Key Characteristics of a proposal (EAG 1).

Proponent and/or DMA to complete	
Title of the proposal	**Ellenbrook Reliable Water Storage Project (C-W00179)**
What project phase is the proposal at?	☐ Scoping ☐ Feasibility √ Detailed design ☐ Other _____
Proposal type *More than one proposal type can be identified, however for filtering purposes it is recommended that only the primary proposal type is identified.*	☐ **Power/Energy Generation** ☐ Hydrocarbon Based – coal ☐ Hydrocarbon Based – gas ☐ Waste to energy ☐ Renewable – wind

Proponent and/or DMA to complete	
	☐ Renewable – wave ☐ Renewable – solar ☐ Renewable – geothermal ☐ **Mineral / Resource Extraction** ☐ Exploration – seismic ☐ Exploration – geotechnical ☐ Development ☐ **Oil and Gas Development** ☐ Exploration ☐ Onshore – seismic ☐ Onshore – geotechnical ☐ Onshore – development ☐ Offshore – seismic ☐ Offshore – geotechnical ☐ Offshore – development ☐ **Industrial Development** ☐ Processing ☐ Manufacturing ☐ Beneficiation ☐ **Land Use and Development** ☐ Residential – subdivision ☐ Residential – development ☐ Commercial – subdivision ☐ Commercial – development ☐ Industrial – subdivision ☐ Industrial – development ☐ Agricultural – subdivision ☐ Agricultural – development ☐ Tourism ☐ **Linear Infrastructure** ☐ Rail ☐ Road ☐ Power Transmission ☐ Water Distribution ☐ Gas Distribution ☐ Pipelines √ **Water Resource Development** ☐ Desalination ☐ Surface or Groundwater ☐ Drainage √ Pipelines ☐ Managed Aquifer Recharge ☐ **Marine Developments** ☐ Port ☐ Jetties ☐ Marina

Proponent and/or DMA to complete	
	☐ Canal ☐ Aquaculture ☐ Dredging *If other, please state below:* √ **Other** __Water Storage_____
Proponent and/or DMA to complete	
Description of the proposal – describe the key characteristics of the proposal in accordance with EAG 1.	Ellenbrook is located approximately 20 km north east of Perth, within the City of Swan. The Ellenbrook Water Supply System (WSS), previously known as the Gnangara WSS, is located within the Northern System of Perth's Integrated Water Supply System (IWSS). The Ellenbrook water distribution system includes all assets supplied downstream of the Gaskell Avenue Pressure Reducing Valve (PRV), supplying the rapidly developing North East Urban Corridor, including areas of Ellenbrook, the Vines and the proposed Albion development. To ensure the security of the community's future water supply, the Water Corporation has determined that three 80 ML water storage tanks, and associated infrastructure, are required. The assets will be located within the Water Corporation's Reserve 49043, and will be progressed in three stages. The Water Corporation proposes to construct the following works: • earthworks and site works such as a sump and hardstand for three tanks, etc.; • A ground level water storage tank of 80 ML capacity, 90 metres diameter and 13.5 metres wall height.); • Chlorination Building of approximately 10 metres x 3.3 metres; • 1150 m of road works from the northern end of the existing Gaskell Avenue to the proposed tank site ('Gaskell Avenue extension'); • Associated pipework, valves and metres; • 2210 m of 1200 mm diameter outlet pipe; and • 4075 m of 900 mm diameter inlet

Proponent and/or DMA to complete	
	pipe. Refer to *Figure 1, Attachment 1*. These assets are required to be in operation by 2017. The second tank (Stage 2) is expected to be required at the Ellenbrook site around 2034 when Ellenbrook is nearly fully developed and the system is extended to supply Bullsbrook. The third tank will only be required if there is a high demand and is not expected to be required before 2058. Due to the risks associated with building large infrastructure, the hardstand for the ultimate development of the three tanks is proposed to be constructed during Stage 1 of the works (See *Figure 2, Attachment 1*). The Water Corporation is the Responsible Agency, and also has a Management Order for the Crown Land Reserve 49043 (A2145), extending from Gnangara Road to the 'Ellenbrook Tank Site', which is 27 ha in size. The construction area footprint is 24.8 ha in size and includes areas within and outside Reserve 49043 (*refers to Section 2.1.2)*. Within the construction footprint area, there is a total of 16.52 ha of vegetation proposed for clearing. 9.6 ha of which is located within the 'Ellenbrook Tank Site'. The 16.52 ha of clearing comprises: • 11.86 ha of *Banksia* Low Open Forest; • 3.38 ha of *Kunzea, Banksia* and *Jacksonia* shrubland (revegetation) carried out by Rocla following their mining activities (as a condition of their mining lease); • 0.82 ha of pine plantation; and • 0.46 ha of an Open Woodland of planted *Pinus* trees amongst naturally occurring *Melaleuca* and *Eucalyptus* species. The Water Corporation has taken all

Proponent and/or DMA to complete	
	possible steps to minimise the clearing of native vegetation while undertaking this essential community infrastructure.
Timeframe in which the proposal is to occur (including start and finish dates where applicable).	Construction for Stage 1 (Tank 1) of the project is proposed to commence late 2015. Stage 2 (Tank 2) is predicted to be required by 2034 and Stage 3 (Tank 3) is not expected to be required before 2058.
Details of any staging of the proposal.	See Above
What is the current land use on the property, and the extent (area in hectares) of the property?	The construction footprint area (24.8 ha) is located within: • Reserve 49043; • State Forest No. 65 ('Gnangara-Moore River State Forest'); and • Rocla Mining Lease ML70/238. Reserve 49043 is 27 ha in size, situated north of Gnangara Road, Ellenbrook, and vested in the Water Corporation for "Water Supply" purposes. Reserve 49043 includes Gaskell Avenue, which is currently also used by Rocla for access to Gaskell Quarry. A Deed agreement, namely the 'Gaskell Avenue Deed', currently exists between the Water Corporation and Rocla for the use of Gaskell Avenue. The construction footprint also includes vegetated areas within State Forest No. 65 ('Gnangara-Moore River State Forest'), which is managed by the Western Australian Department of Parks and Wildlife (DPaW), and Mining Lease ML 70/238, which is held by Rocla Pty Ltd, and is being progressively mined for silica sand. The project will require the utilisation of these areas for laydown, stockpiling, open-cut trenching and battering etc. during construction. Refer to *Figures, Attachment 1*.
Have pre-referral discussions taken place with the OEPA? If yes, please provide the case number. If a case number was not provided, please state the date of the meeting and names of attendees.	Yes Reference Number: CMS15134 Date:6th May 2015 Name of Attendees: Natalie Jackson (Water Corporation) Steve Ellwood (Water Corporation)

Proponent and/or DMA to complete	
	Leanne Thompson (EPA) Kathryn Schell (EPA)
DMA (Responsible Authority) to complete	
For a proposal under an assessed scheme (as defined in section 3 of the EP Act, applicable only to the proponent and DMA) provide details (in an attachment) as to whether: • *The environmental issues raised by the proposal were assessed in any assessment of the assessed scheme.* • *The proposal complies with the assessed scheme and any environmental conditions in the assessed scheme.*	

1.3 Strategic / derived proposals

Complete this section if the proposal being referred is a strategic proposal or you are seeking the proposal to be declared a derived proposal. Note: Only a proponent may refer a strategic proposal and seek a proposal to be declared a derived proposal.

Proponent to complete	
Is this referred proposal a strategic proposal?	☐ Yes ☑ No
Are you seeking that this proposal be declared a derived proposal?	☐ Yes ☑ No
If you are seeking that this proposal be declared a derived proposal, what is the Ministerial Statement number (MS #) of the associated strategic proposal?	MS #: _____ N/A

1.4 Location

Proponents and DMAs must provide spatial data. Please refer to EAG 1 for more detail.

Proponent, DMA and Third Party to complete	
Name of the Local Government Authority in which the proposal is located.	City of Swan
Location: a) street address; lot number; suburb; and nearest road intersection; or b) if remote the nearest town; and distance and direction from that town to the proposal site.	Reserve 49043 near Gaskell Avenue, Ellenbrook WA 6079. Refer to *Figures, Attachment 1*.
Have maps and figures been included with the referral (consistent with EAG 1 where appropriate)? *The types of maps and figures which need to be provided (depending on the nature of the proposal) include:* • *maps showing the regional location and context of the proposal; and* • *figures illustrating the proposal elements.*	☑ Yes ☐ No
Proponent and DMA to complete	

Proponent, DMA and Third Party to complete	
Have electronic copies of spatial data been included with the referral? ***NB:*** *Electronic spatial (GIS or CAD) data, geo-referenced and conforming to the following parameters:* • *GIS: polygons representing all activities and named;* • *CAD: simple closed polygons representing all activities and named;* • *datum: GDA94;* • *projection: Geographic (latitude/longitude) or Map Grid of Australia (MGA);* • *format: ESRI geodatabase or shapefile, MapInfo Interchange Format, Microstation or AutoCAD..*	√ Yes ☐ No Refer to *Enclosure 1.*

1.5 Significance test and environmental factors

Proponent, DMA and Third Party to complete	
What are the likely significant environmental factors for this proposal?	☐ Benthic Communities and Habitat ☐ Coastal Processes ☐ Marine Environmental Quality ☐ Marine Fauna √ Flora and Vegetation ☐ Landforms ☐ Subterranean Fauna ☐ Terrestrial Environmental Quality √ Terrestrial Fauna ☐ Hydrological Processes ☐ Inland Waters Environmental Quality ☐ Air Quality & Atmospheric Gases ☐ Amenity ☐ Heritage ☐ Human Health √ Offsets ☐ Rehabilitation and Decommissioning
Having regard to the Significance Test (refer to Section 7 of the *EIA Administrative Procedures 2012*) in what ways do you consider the proposal may have a significant effect on the environment and warrant referral to the EPA?	The proposal impacts 16.5 ha of native and non-native vegetation within the Environmental Protection (Gnangara Mound) Policy 1992 area. The project area intersects Bush Forever Site No. 399 (*Melaleuca Park and Adjacent Bushland, Bullsbrook/ Lexia)*, which is listed as being part of a regionally significant contiguous bushland/wetland linkage. It is of particular significance as it provides corridors through otherwise highly cleared lands and provides linkages of regional significance.

Proponent, DMA and Third Party to complete	
	The Priority 3 Ecological Community (PEC) 'Swan Coastal Plain *Banksia attenuata* - *Banksia menziesii* woodlands', (SCP23b) is present within the northern section of the project area and is associated within the vegetation type *Banksia* Low Open Forest (11.86 ha). 6.06 ha of the proposed clearing occurs within the Gnangara-Moore River State Forest (State Forest No. 65). There is potential for the project area to support threatened Flora and Fauna protected under WC Act and listed by the DER, however none were found during the field surveys.

1.6 Confidential information

All information will be made publically available unless authorised for exemption under the EP Act or subject to the Freedom of Information Act 1992.

Proponent to complete	
Does the proponent request that the EPA treat any part of the referral information as confidential? *Ensure all confidential information is provided in a separate attachment in hard copy.*	☐ Yes √ No

2 REGULATORY CONSIDERATIONS

This section applies to the Local, State and Commonwealth regulatory considerations for the referred proposal.

2.1 Government approvals

2.1.1 State or Local Government approvals

DMA to complete	
What approval(s) is (are) required from you as a decision-making authority?	
Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.	☐ Yes ☐ No

2.1.2 Regulation of aspects of the proposal

Complete the following to the extent possible.

Proponent to complete

Proponent to complete	
Do you have legal access required for the implementation of all aspects of the proposal? *If yes, provide details of legal access authorisations / agreements / tenure.* *If no, what authorisations / agreements / tenure is required and from whom?*	Tenure: √ Yes ☐ No Refer to *Appendix B, C and D Attachments 1*. Formal authorisation will be sought from Conservation Commission in relation to access/ clearing in State Forest, and from Rocla for access to Mining Lease (ML70/238).

Outline both the existing approvals and approvals that will be / are being sought as a part of this proposal.

Proponent to complete			
Aspects* of the proposal	**Type of approval**	**Legislation regulating this activity**	**Which State agency /entity regulate this activity?**
Clearing of vegetation within the 'Ellenbrook Tank Site' -12 ha (September/ October 1992)	Referral under the EP Act – Proposal Not Assessed Refer to *Appendix E, Attachments 1*	Environmental Protection Authority	Environmental Protection Authority
Geotechnical survey Clearing within the 'Ellenbrook Tank Site' (May 2014)	Referral under the EP Act – proposal not formally assessed Refer to *Appendix F, Attachments 1*	EP Act 1986 – Part IV	Environmental Protection Authority
Geotechnical survey Clearing within the 'Ellenbrook Tank Site' (June 2014)	Part V - Native Vegetation Clearing Permit Refer to *Appendix G, Attachments 1*	EP Act 1986 – Part V	Department of Environment Regulation
Clearing of vegetation within the construction footprint area (Stages 1, 2 and 3) -16.52 ha (January 2015)	Referral under EPBC Act – Proposal is a Controlled Action Refer to *Appendix H, Attachments 1*	EPBC Act 1999	Department of Environment
Clearing of vegetation within the construction footprint area (Stages 1, 2 and 3) -16.52 ha (still to be undertaken)	Part V - Native Vegetation Clearing Permit (still to be undertaken)	EP Act 1986 – Part V	Department of Environment Regulation

**e.g. mining, processing, dredging*

2.1.3 Commonwealth Government *Environment Protection and Biodiversity Conservation Act 1999* approvals

Refer to the assessment bilateral agreement between the Commonwealth of Australia and the State of Western Australia for assistance on this section.

Proponent to complete	
1. Does the proposal involve an action that may be or is a controlled action under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)?	√ Yes ☐ No *If no continue to Part A section 2.3.4.*
2. What is the status of the decision on whether or not the action is a controlled action?	☐ Proposal not yet referred ☐ Proposal referred, awaiting decision √ Assessed – controlled action ☐ Assessed – not a controlled action
3. If the action has been referred, when was it referred and what is the reference number (Ref #)?	Date: _13/02/2014_____ Ref #: _EPBC 2015/7421_____
4. If the action has been assessed, provide the decision in an attachment. Has an attachment been provided?	√ Yes ☐ No Refer to *Appendix I, Attachments 1*
5. Do you request this proposal to be assessed under the bilateral agreement?	☐ Yes √ No

Complete the following to the extent possible for the Public Comment of EPBC Act referral documentation.

Proponent to complete	
6. Have you invited the public to comment on your referral documentation?	√ Yes ☐ No Under the EPBC Act referral process
7. How was the invitation published?	☐ newspaper √ website
8. Did the invitation include all of the following?	
(a) brief description of the action	√ Yes ☐ No
(b) the name of the action	√ Yes ☐ No
(c) the name of the proponent	√ Yes ☐ No
(d) the location of the action	√ Yes ☐ No
(e) the matters of national environmental significance that will be or are likely to be significantly impacted	√ Yes ☐ No
(f) how the relevant documents may be obtained	√ Yes ☐ No

Proponent to complete	
(g) the deadline for public comments	√ Yes ☐ No
(h) available for public comment for 14 calendar days	√ Yes ☐ No
(i) the likely impacts on matters of national environmental significance	√ Yes ☐ No
(j) any feasible alternatives to the proposed action	√ Yes ☐ No
(k) possible mitigation measures	√ Yes ☐ No
9. Were any submissions received during the public comment period?	☐ Yes √ No The consultation period closed on 27/2/2015 under the EPBC Act.
10. Have public submissions been addressed? If yes provide attachment.	☐ Yes ☐ No N/A

2.1.4 Other Commonwealth Government Approvals

Proponent, DMA and Third Party to complete			
Is approval required from other Commonwealth Government/s for any part of the proposal?		☐ Yes √ No *If yes, please complete the table below.*	
Agency / Authority	Approval required	Application lodged?	Agency / Local Authority contact(s) for proposal
		☐ Yes ☐ No	
		☐ Yes ☐ No	

3. SUPPORTING INFORMATION

Please attach copies of any relevant information on the proposal, supporting evidence and / or existing environmental surveys, studies or monitoring information undertaken and list the documents below.

Proponent, DMA and Third Party to complete			
(1)	Ellenbrook Tank and the Inlet and Outlet Main Flora, Vegetation and Fauna Assessment.	GHD	Level Two Flora and Vegetation assessment and a Level One Fauna assessment (spring 2012) Refer to *Appendix J, Attachments 1*
(2)	Water Corporation Ellenbrook Inlet and Outlet Main Corridor Level 1 Flora and Fauna Assessment.	Ecologia	Level 1 supplementary Flora and Fauna survey (March 2014) Refer to *Appendix K, Attachments 1*
(3)	Ellenbrook Tanks and Pipeline Project. Phytophthora Dieback Occurrence Assessment	Glevan Consulting	Ellenbrook Dieback Assessment (June 2014) Refer to *Appendix L, Attachments 1*
	Ellenbrook Tanks and Pipeline Project. Phytophthora Dieback Management Plan	Glevan Consulting	Ellenbrook Dieback Management Plan (June 2014) Refer to *Appendix M, Attachments 1*

PART B: ENVIRONMENTAL FACTORS

The purpose of Part B is to assist the EPA to determine the significance of the likely environmental impacts of the proposal in accordance with the EPA's *Environmental Assessment Guideline for Environmental factors and objectives* (EAG 8) and *Environmental Assessment Guideline for Application of a significant framework in the EIA process* (EAG 9). Referrers completing Part B should refer closely to EAG 8 and EAG 9.

The EPA has prepared *Referral of a Proposal under s38 of the EP Act EAG No.16 - Appendix A* (Appendix A) to assist in identifying factors and completing the below table. Further guidance can be found in the guidance and policy documents cited in Appendix A under each factor.

How to complete Part B
For each environmental factor, that is likely to be significantly impacted by the implementation of the proposal, make a copy of the table below and insert a summary of the relevant information relating to the proposal. The table can be broken down into more than one table per factor, if the need arises. For example the hydrological processes factor can be presented in two separate tables, one for surface water and one for groundwater, or similarly one for construction and one for operations.

For complex proposals a supplementary referral report can be provided in addition to the referral form. If this option is chosen the table must still be completed (summaries are acceptable) to assist the Office of the EPA with statistical reporting and filtering proposals for processing.

Proponents expecting an API level of assessment must provide information in accordance with the EPA's *Environmental Assessment Guideline for Preparation of an API-A environmental review document* (EAG 14).

For each of the significant environmental factors, complete the following table (Questions 1 – 10).

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
1	Factor, *as defined in EAG 8*	Flora and Vegetation
2	EPA Objective, *as defined in EAG 8*	To maintain representation, diversity, viability and ecological function at the species, population and community level.
3	Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?	Environmental Protection (Gnangara Mound) Policy 1992. EPA's Guidance Statement No. 51 State Planning Policy 2.8 Bushland Policy for the Perth Metropolitan Region. EPA Guidance Statement No. 10.
4	Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including: • *anticipated level of public interest in the impact;* • *consultation with regulatory agencies; and* • *consultation with community.*	Consultation with the EPA via a Proposal Application with reference to a 12 ha area for the purposes of constructing the reservoir on the 'Ellenbrook Tank Site' was submitted by the then Water Authority in October 1992. This was subject to a public appeals period. The EPA decided to informally assess the proposal and provide

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
		advice in relation to the management of environmental issues during the project's implementation. Liaison during 1992 with the then CALM, as the vesting authority for State Forest, to acquire the site for the purpose of establishing a reservoir. On 1st December 1992 the then Water Authority obtained approval in principle from CALM. On 9th February 1995, the Water Authority requested CALM to initiate the statutory process to excise the land from State Forest No. 65. Parliamentary consent was obtained in November 1998 (Legislative Assembly) and March 1999 (Legislative Council), following a period during which members of Parliament were able to scrutinise the proposal. On 10th March 2014, the Water Corporation's proposal to undertake geotechnical work at the tank site was referred to the Western Australian Environmental Protection Authority (EPA) as required under the *Environmental Protection Gnangara Mound Crown Land Policy 1992.* On 26th May 2014, after a seven day public appeals period, the EPA determined the proposal to be 'Not Assessed – manage under Part V', in consultation with the Department of Environment Regulation. On 13th February 2015, a referral was submitted to the Federal Department of the Environment by the Water Corporation under the *Environment Protection and Biodiversity Conservation Act 1999.* The DoE has determined that the matter is a Controlled Action, in relation to likely significant impacts on Matters of National Environmental Significance (foraging habitat for the listed Endangered Carnaby's Black-Cockatoo). The Water Corporation has

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.			
			commissioned TPG to prepare a Development Application for submission to the City of Swan as the relevant Local Government Authority (LGA). The Water Corporation has discussed the project with the City of Swan. The Water Corporation's Communication's Branch is currently preparing information for public consultation. The following stakeholders have also been consulted: - Main Roads; and - Rocla Pty Ltd. Stakeholder consultation will also be required under Part V of the *Environmental Protection Act 1986* process, if the EPA does not assess the project.
5	Baseline information - describe the relevant characteristics of the receiving environment. *This may include: regional context; known environmental values, current quality, sensitivity to impact, and current level of cumulative impacts.*	1	The Project area is mapped within the Environmental Protection (Gnangara Mound) Policy (EPP) 1992 area.
		2	16.1 ha of the proposed clearing for the project is located within Bush Forever No. 399 (Melaleuca Park and Adjacent Bushland, Bullsbrook/ Lexia).
		3	The Priority 3 Ecological Community (PEC) 'Swan Coastal Plain *Banksia attenuata* - *Banksia menziesii* woodlands', (SCP23b) is present within the northern section of the project area and is associated within the vegetation type *Banksia* Low Open Forest (11.86 ha).
		4	6.06 ha of the proposed clearing occurs within the Gnangara-Moore River State Forest (State Forest No. 65).

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.			
		5	There is potential for the project area to support threatened and Priority Flora protected under the State's *Wildlife Conservation Act 1950* (refer to Table 1). However none were identified during the field surveys.
		Current Cumulative impacts: The project area is adjacent to existing and continuing degrading land uses (i.e. urban development, mining operations and the future Perth - Darwin National Highway). Surrounding mining activities will continue to expand into Rocla's 540 ha mining lease area predominately to the north, south and west of the project area and are likely to compromise the viability of the project area's remnant vegetation.	
6	Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.	Loss of vegetation and flora.	
7	Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed: • *Avoidance - avoiding the adverse environmental impact altogether;* • *Minimisation - limiting the degree or magnitude of the adverse impact;* • *Rehabilitate – restoring the maximum environmental value that is reasonably practicable; and* • *Offsets – actions that provide environmental benefits to counterbalance significant residual environmental impacts or risks of a project or activity.*	**Avoidance:** • The project has been designed with consideration to minimising the clearing footprint as much as possible. Careful arrangement of the tank site to one side of the site has minimised the construction footprint area, resulting in the preservation of 4 ha of in-situ *Banksia* Low Open Forest within the eastern part of the tank site. • The project area is currently not fenced and has already been exposed to ongoing degraded factors including the utilisation of the tank site by recreational off-road vehicles, resulting in the creation of several sandy tracks across the site. The proposal will result in fencing the tank site to exclude public access and prevent further associated degradation; • The proposal utilises as much as possible existing completely	

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
		cleared areas as part of the construction footprint area. This accounts for 33% of the construction footprint area (i.e. 8.3 ha of 24.8 ha); • 3.38 ha of the 16.52 ha of total clearing (i.e. 20%) is clearing of areas previously revegetated; and • Temporary office and material lay down areas will be located within already cleared areas. **Minimisation:** To minimise the impacts associated with the construction of the proposal, a Construction Environmental Management Framework (CEMF) will be developed to identify environmental risks to be managed and to set environmental outcomes to be met by the construction company. The following management outcomes will be implemented to ensure minimal impacts associated with the proposed clearing: • Clearing will be carried out in accordance with EPA Position Statement No. 2, *Environmental Protection Native Vegetation in Western Australia (2000).* • Clearing zone will be clearly marked so that no inadvertent clearing occurs; and • Vegetation clearing activities will be managed under Part V of State's EP Act. **Rehabilitate:** Cleared native vegetation areas will be rehabilitated where practical. **Offsets:** The Water Corporation have been in recent consultation with the Department of Parks and Wildlife (DPaW) and the Department of Environment Regulation (DER) to identify potential Environmental Offsets, including financial contribution to land acquisition and revegetation, to counterbalance any

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
		significant residual impacts associated with the project.

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
8	Residual impacts – review the residual impacts against the EPA objectives. *It is understood that the extent of any significant residual impacts may be hard to quantify at the referral stage. Referrers are asked to provide, as far as practicable, a discussion on the likely residual impacts and form a conclusion on whether the EPA's objective for this factor would be met if residual impacts remain. This will require:* • *quantifying the predicted impacts (extent, duration, etc.) acknowledging any uncertainty in predictions;* • *putting the impacts into a regional or local context, incorporating knowable cumulative impacts; and* • *comparison against any established environmental policies, guidelines, and standards.*	The proposed action involves the proposed clearing of 16.52 ha of vegetation to facilitate the construction of the hardstand for three tanks, to construct a single 80 ML tank, inlet and outlet main, overflow sump and other associated infrastructure. The Water Corporation proposes to construct the hardstand for the ultimate development of the three tanks during Stage 1 of the works. Consequently the whole 16.52 ha of vegetation will be cleared during Stage 1 of the project. The tanks, however, will be constructed over three stages. Stage 1 is proposed to commence in 2015. Based on predicted future demands it is estimated that Stage 2 (Tank 2) will be required in 2034, and Stage 3 (Tank 3) no earlier than 2058. The Water Corporation has considered building the hardstand in two stages in order to reduce the extent of clearing. However to build large infrastructure sequentially over time such as the Ellenbrook water supply tanks requiring site preparation, ground stabilisation and excavation in close proximity to one another poses an unacceptable risk of damage to the already established infrastructure. Additionally, the sloping topography of the site makes it impractical to consecutively construct hardstands adjacent to each other. Normal practice is to undertake all essential site preparation required for future construction, such as clearing, levelling and compaction to avoid intrusive ground disturbing activities that may put the existing infrastructure at risk in the future. Additionally, this will allow laydown areas to facilitate construction. The Water Corporation considers the impacts of the project can be managed and therefore the EPA's objective for this factor would be met. To demonstrate this, the following summarises the residual

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
		impacts of the project: • within the construction footprint area of 24.8 ha, only 13.14 ha comprises clearing of in-situ native vegetation; • The area of native vegetation to be cleared is not a significant isolated remnant as it is surrounded by similar vegetation. Extending predominately to the North West of the project area is Gnangara-Moore River State Forest (State Forest No. 65) which is managed by the DPaW and covers an area of about 71,000 hectares. It is estimated that within a 5 km radius of the tank site there is approximately more than 1300 ha of vegetation within the Gnangara-Moore River State Forest; • The project area represents a very small portion of native vegetation in the immediate area; and • Prior to 30th January 2007 the Reserve 49043 was included within the sand mining lease area (ML70/238). The sand mining lease over the site was relinquished with due compensation paid by the Water Corporation for the loss of revenue to the Government and the mining title holder. It is likely that the vegetation within the project area would probably already have been mined; if it had remained as a mining lease.
9	EPA's Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? *Refer to EAG 9*	☐ *meets the EPA's objective* √ *may meet the EPA's objective* ☐ *is unlikely to meet the EPA's objective*

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
10	Describe any assumptions critical to your conclusion (in Question 9). *e.g. particular mitigation measures or regulatory conditions.*	The project area is adjacent to existing and continuing degrading land uses within the Gnangara Mound EPP Area. The impacts associated with this project are minimal and therefore not considered significant. The Water Corporation is also currently investigating environmental offsets to counterbalance the residual impacts associated with clearing of 13.14 ha of native vegetation for the project

Table 1 – Summary of flora likelihood occurrence assessment

Family	Species	WC Act Status	Likelihood of Occurrence Assessment
Apiaceae	*Eryngium pinnatifidum* subsp. *palustre*	P3	Possible
Dasypogonaceae	*Calectasia* sp. Pinjar	P1	Possible
Euphorbiaceae	*Stachystemon* sp. Keysbrook	P1	Possible
Haemodoraceae	*Phlebocarya pilosissima* subsp. *pilosissima*	P3	Likely
Myrtaceae	*Chamelaucium* sp. Gingin	T	Possible
Myrtaceae	*Darwinia foetida*	T	Possible
Myrtaceae	*Verticordia lindleyi* subsp. *Lindleyi*	P4	Possible
Orchidaceae	*Caladenia huegelii*	T	Likely
Orchidaceae	*Thelymitra stellata*	T	Possible
Restionaceae	*Hypolaena robusta*	P4	Likely

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
1	Factor, *as defined in EAG 8*	Fauna
2	EPA Objective, *as defined in EAG 8*	To maintain representation, diversity, viability and ecological function at the species, population and community level.
3	Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?	EPA's Guidance Statement No. 56
4	Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including: • *anticipated level of public interest in the impact;* • *consultation with regulatory agencies; and* • *consultation with community.*	See *Flora and Vegetation Factor*
5	Baseline information - describe the relevant characteristics of the receiving environment. *This may include: regional context; known*	**Fauna Species** The project area has been identified as likely to be or possibly

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
	environmental values, current quality, sensitivity to impact, and current level of cumulative impacts.	being an area of habitat for seven conservation significant fauna protected under WC Act or listed by the DER (*refer to Table 2*). Regionally, the Swan Coastal Plain has been extensively cleared. However, locally the area is surrounded by the Gnangara-Moore River State Forest which covers an area of 71,000 ha in size. It is estimated that within a 5 km radius of the tank site there is approximately more than 1300 ha of vegetation within the Gnangara-Moore River State Forest. Although no direct observation of the three species of Black Cockatoos was recorded during the Spring 2012 survey, nor the March 2014 survey, Ecologia reported that there was evidence of Black Cockatoo (species unknown) foraging found through chewed pine cones (*Pinus* sp.) in two locations in and near the project area (refer to the survey report in *Appendix K, Attachments 1*). In the pine plantation, the evidence of feeding on the pine cones was extensive in the south with almost every pine cone on the ground having been chewed on by Black Cockatoos. Further foraging evidence (unidentified quantity of cones) was observed beneath isolated pine trees in the north of the 'Open Pine, *Melaleuca* and *Eucalyptus* woodland' habitat type on the eastern side of the road (outside of the project area). Personal communication between Ecologia and Bruce Hardy (Safety Training/ Project Coordinator, Rocla Quarry Products), reported that Black Cockatoos (species unknown) had been observed foraging in the Pine Plantation along 'St Patrick Road' just prior to the survey (dates unknown). Though not observed during the field survey it is considered likely that the Blackstriped Snake,

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
		Southern Brown Bandicoot and Western Brush Wallaby may also be present with the Project Area. **Fauna Habitat** It was identified that there are four main fauna habitats present within the project area: - *Banksia* Woodland - Revegetation *Banksia* Woodland - Pine Plantation - Open Pine, *Melaleuca* and *Eucalyptus* woodland Refer to Ecologia's Survey Report (*Appendix K, Attachments 1)* for descriptions. **Current Cumulative impacts:** The project area is adjacent to existing and continuing degrading land uses (i.e. urban development, mining operations and the future Perth - Darwin National Highway). Surrounding mining activities will continue to expand into Rocla's 540 ha mining lease area predominately to the north, south and west of the project area and is likely to compromise the viability of the project area's remnant vegetation.
6	Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.	Potential impact to fauna species and loss of fauna habitat.

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
7	Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed: • *Avoidance - avoiding the adverse environmental impact altogether;* • *Minimisation - limiting the degree or magnitude of the adverse impact;* • *Rehabilitate – restoring the maximum environmental value that is reasonably practicable; and* • *Offsets – actions that provide environmental benefits to counterbalance significant residual environmental impacts or risks of a project or activity.*	**Avoidance:** *Please refer to Flora and Vegetation Factor* **Minimisation:** To minimise the impacts associated with the construction of the Ellenbrook Water Supply Tanks and pipeline, a Construction Environmental Management Framework (CEMF) will be developed to identify where plans are needed to manage environmental impacts of the project. **Rehabilitate:** Cleared native vegetation areas will be rehabilitated where practical. **Offsets:** The Water Corporation is also currently in consultation with the DPaW and DER to investigate environmental offsets to counterbalance the residual impacts associated with the project. The proposal is a Controlled Action under the EPBC Act in relation to impacts on foraging habitat for the Endangered listed Carnaby's Black Cockatoo. The residual impacts on foraging habitat for the Carnaby's Black Cockatoo will be addressed under the EPBC Act, via suitable offsets to be determined in consultation with the DoE, which will also meet the requirements of the DER.

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
8	Residual impacts – review the residual impacts against the EPA objectives. *It is understood that the extent of any significant residual impacts may be hard to quantify at the referral stage. Referrers are asked to provide, as far as practicable, a discussion on the likely residual impacts and form a conclusion on whether the EPA's objective for this factor would be met if residual impacts remain. This will require:* • *quantifying the predicted impacts (extent, duration, etc.) acknowledging any uncertainty in predictions;* • *putting the impacts into a regional or local context, incorporating knowable cumulative impacts; and* • *comparison against any established environmental policies, guidelines, and standards.*	Based on the Keighery (1994) condition rating scale the vegetation condition of the project area ranged from *Pristine* to *Completely Degraded*. The native vegetation located in the northern section of the Project Area (tank site) rated between *Pristine* to *Excellent*. This area represents the *Banksia* woodland fauna habitat area. A small section of rehabilitated vegetation is located in the north of the Project Area. The vegetation condition of the rehabilitated area rated between *Good* to *Degraded* as the vegetation structure within the rehabilitated vegetation was basic and signs of clearing in the past were evident. Areas south of the rehabilitated area have previously been disturbed /cleared for mining and infrastructure. These areas were assigned a rating of *Completely Degraded*. Vegetation along Gaskell Avenue ranged between *Very Good* to *Completely Degraded*. More precisely, the western side of Gaskell Avenue supports less intact remnant native vegetation and is in poorer condition than the eastern side. The Dieback survey undertaken by Glevan Consultants between January and March 2014 found that no Phytophthora Dieback infestations were identified within the Ellenbrook Tank Site, however three small sections on the boundary of the tank were observed to be infested with another pathogen, namely *Phytophthora arenaria.* The remainder of the tank site was observed to be uninfested. Four areas infested with Phytophthora Dieback were observed within the outlet/ inlet project corridor. Many sections were also found to be unmappable due to the disturbance and insufficient coverage of reliable indicator species.

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
9	EPA's Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? *Refer to EAG 9*	☐ *meets the EPA's objective* √ *may meet the EPA's objective* ☐ *is unlikely to meet the EPA's objective*
10	Describe any assumptions critical to your conclusion (in Question 9). *e.g. particular mitigation measures or regulatory conditions.*	The project area is adjacent to existing and continuing degrading land uses. Of the four fauna habitats identified within the project area, one (*Banksia* woodland) is considered to be of conservation value. Management and mitigation measures are to be implemented to reduce the impacts to fauna. The Water Corporation is also currently in consultation with the DPaW and DER to investigate environmental offsets to counterbalance the residual impacts associated with the project under both the EP and the EPBC Acts.

In circumstances where there was some uncertainty on the level of significance of a particular factor it is recommended that a brief summary (no longer than 1 - 2 paragraphs) is provided on the steps taken to determine why a factor was not considered to be significant.

Table 2 – Summary of fauna likelihood occurrence assessment

Species	Common Name	WC Act / DER Status	Likelihood of occurrence in the project area
Falco peregrinus	Peregrine Falcon	Other specially protected fauna	*Possible* The species has been recorded within 5 km of the site and there is some suitable habitat. The surrounding development and disturbance may limit habitat values of the site however the proximity of the site to semi-rural areas may increase the likelihood of the species utilising the project area
Leipoa ocellata	Malleefowl	Threatened	*Unlikely* The Malleefowl usually occurs in shrublands and low woodland that are dominated by mallee vegetation. There is no suitable habitat present within the project area.
Calyptorhynchus banksii naso	Forest Red-tailed Black Cockatoo	Threatened	*Likely* Suitable foraging habitat present within project area and has been recorded within 5 km of the site. Foraging evidence has also been identified possibly from Forest Red-tailed

			Black Cockatoo within the project area but a direct observation was not made during any of the surveys.
Calyptorhynchus latirostris	Carnaby's Black Cockatoo	Threatened	*Likely* Suitable foraging habitat present within project area and has been recorded within 5 km of the site. Foraging evidence has also been identified within the project area likely to be Carnaby's Black Cockatoo but a direct observation was not made during any of the surveys.
Calyptorhynchus baudinii	Baundin's Black Cockatoo	Threatened	*Likely* Suitable foraging habitat present within project area, and the species has been recorded within 5 km of the site.
Rostratula australis	Australian Painted Snipe	Threatened	*Unlikely* The Australian Painted Snipe generally inhabits shallow terrestrial freshwater (occasionally brackish) wetland, including temporary and permanent lake, swamps and clay pans. There is no suitable habitat within the project area.
Dasyurus geoffroii	Chuditch	Threatened	*Unlikely* The project area has some vegetation connectivity between the northern tank site and surrounding Gnangara-Moore River State Forest that would provide some habitat for the Quoll, however, the high levels of disturbance from the mine, development, cats and foxes within the project area and in the surrounding area would greatly limit the likelihood of occurrence.
Isoodon obesulus fusciventer	Southern Brown Bandicoot	Priority 5	*Likely* Suitable habitat present within Project Area and has been recorded within 5 km of the site. This species is known to occur in urban bushland in some parts of Perth, and has been recorded both in Ellenbrook and within Whiteman Park.
Macropus irma	Western Brush Wallaby	Priority 4	*Likely* The Wallaby is known to occur at Whiteman Park and there is some connectivity to the surrounding undeveloped land that could provide suitable habitat. However, the high levels of disturbance, development and foxes within the Project Area and in surrounding areas would limit the population size of this species.

Hydromys chrysogaster	Water-rat	Priority 4	*Unlikely* The Project Area does not contain any permanent water bodies which would provide habitat for the water-rat. The Project Area is also not well connected to any other habitat which would provide habitat for the species. The species has been recorded within 5 km of the site, and may travel through the Project Area in search of suitable habitat such as to the south near Ellen Brook. However, the high levels of disturbance, development, cats and foxes within the Project Area and in surrounding areas would limit the likelihood of occurrence.
Neelaps calonotos	Black-striped Snake	Priority 3	*Likely* This species is restricted to the sandy coastal strip of dune habitat between Mandurah and Lancelin, and occurs on dunes and sand-plains vegetated with heaths and eucalypt/banksia woodlands. There is suitable habitat within the Project area, with the loose coastal sand providing burrowing habitat for the Black-striped snake. The species has also been recorded within 5 km of the Project Area.

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
1	Factor, *as defined in EAG 8*	Hydrological Processes
2	EPA Objective, *as defined in EAG 8*	To maintain the hydrological regimes of groundwater and surface water so that existing and potential uses, including ecosystem maintenance, are protected.
3	Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?	Environmental Protection (Gnangara Mound) Policy 1992.
4	Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including: • *anticipated level of public interest in the impact;* • *consultation with regulatory agencies; and* • *consultation with community.*	It is not anticipated that there will be a high level of interest from the community on the proposed activity.

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
5	Baseline information - describe the relevant characteristics of the receiving environment. *This may include: regional context; known environmental values, current quality, sensitivity to impact, and current level of cumulative impacts.*	The project overlays the Gnangara Mound. Lack of recharge due to a drier climate, maturation of the pine plantation and less frequent prescribed burning of native woodland is thought to have caused groundwater decline on Gnangara Mound in recent years. There are currently 24,620 ha of pine plantation and 45,120 ha of native woodland. The mound also provides about 60 % of water supply of Perth and is currently over-utilised. Rocla has a mining lease to clear native vegetation and extract sand over much of the area surrounding the project site.
6	Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.	No significant impacts to groundwater of the Gnangara Mound are anticipated as a result of implementation of this project. While some native and non-native vegetation will be removed, it will be replaced with hardstand, roads, etc. which will result in increased rainfall runoff and infiltration to groundwater. There is a small risk of groundwater contamination as a result of spills of fuel and oil leaks during construction works, but these risks will be appropriately managed through the implementation of a project Construction Environmental Management Plan. Dangerous goods will not be stored or used onsite during the operational phase, so there is negligible risk to groundwater quality post construction.
7	Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed: • *Avoidance - avoiding the adverse environmental impact altogether;* • *Minimisation - limiting the degree or magnitude*	The project's Construction Environmental Management Plan will detail management measures to minimise the risks of spills and leaks of fuel/chemicals during construction.

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
	of the adverse impact; • *Rehabilitate – restoring the maximum environmental value that is reasonably practicable; and* • *Offsets – actions that provide environmental benefits to counterbalance significant residual environmental impacts or risks of a project or activity.*	Areas of temporary clearing, which are not required to remain cleared after construction, will be revegetated to reasonably restore environmental values.
8	Residual impacts – review the residual impacts against the EPA objectives. *It is understood that the extent of any significant residual impacts may be hard to quantify at the referral stage. Referrers are asked to provide, as far as practicable, a discussion on the likely residual impacts and form a conclusion on whether the EPA's objective for this factor would be met if residual impacts remain. This will require:* • *quantifying the predicted impacts (extent, duration, etc.) acknowledging any uncertainty in predictions;* • *putting the impacts into a regional or local context, incorporating knowable cumulative impacts; and* • *comparison against any established environmental policies, guidelines, and standards.*	N/A
9	EPA's Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? *Refer to EAG 9*	√ *meets the EPA's objective* ☐ *may meet the EPA's objective* ☐ *is unlikely to meet the EPA's objective*

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
10	Describe any assumptions critical to your conclusion (in Question 9). *e.g. particular mitigation measures or regulatory conditions.*	Increased evapotranspiration and drying climate are considered to the principal causes, other than abstraction, for a decline in groundwater levels within the Gnangara Mound. Locally, vegetation removal and sand extraction by Rocla, will result in some impacts to local groundwater levels. The project proposes to remove native and non-native vegetation, and dangerous goods will be managed through the project's Construction Environmental Management Plan. Therefore it is anticipated that there will be no significant impacts to groundwater level and quality within the Gnangara Mound.