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 proposals¹ 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)	
Completed all the questions in Part B	
Completed all other applicable questions	
Included Attachment 1 – any additional document(s) the proponent wishes to provide	✓ YesReferral Support Document(RSD)☐ No
Included Attachment 2 – confidential information (if applicable)	☐ Yes ⊠ No
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 <u>Environmental Impact</u>
 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, Gavin Nicholls (full name) declare that I am authorised on behalf of Department of Defence (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	MILE.	Name: Gavin Nic	hols	
Position	Director Estate and Facility Services, Central and West Region	Organisation	Department of D	efence
Email	Gavin.nichols@defence.go	ov.au		
Address	PO Box 2188			
	Rockingham		WA	6967
Date	16 NOV 15			

(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 comp	letion] Yes □ No
Completed all	other applicable questions] Yes □ No
Included Attac	hment 1 – any supporting in	formation] Yes □ No
	lectronic copy of all referral i al data and contextual mapp] Yes □ No
Completed the	below Declaration] Yes □ No
	er the proposal requires forn impact assessment?	nal		Yes No
What is the typ	oe of proposal being referred	! ?	signific	cant proposal
			cant proposal under sessed 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	Street No.	Street Name		
	Suburb		State	Postcode
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	Complete all applicable questions in Part A and B		☐ Yes ☐ No	
Completed th	e Declaration			☐ Yes ☐ No
Do you consi assessment?	• •	es formal environmenta	l impact	☐ Yes ☐ No
Declaration I,, (full name) submit this referral to the EPA for consideration of the environmental significance of its impacts.				
Signature	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	Department of Defence
Joint Venture parties (if applicable)	NA
Australian Company Number(s) (if applicable)	NA
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)	Stirling Naval Base Garden Island WA
Key proponent contact for the proposal Please include: name; physical address; phone; and email.	Gavin Nicholls Director Estate Facility Services Central and West Region, Leeuwin Barracks, Riverside Road, East Fremantle, WA 6158 08 9311 2500 Gavin.Nicholls@defence.gov.au
Consultant for the proposal (if applicable) Please include: name; physical address; phone; and email.	Paul Everson, Environment Leader Aurecon Level 5, 863 Hay Street, Perth WA. 6000 Phone: (08) 6145 9650

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 <u>Environmental Protection Bulletin 17 – Strategic and derived proposals (EPB 17)</u> and <u>Environmental Assessment Guideline for Defining the Key Characteristics of a proposal (EAG 1)</u>.

Proponent and/or DMA to complete	
Title of the proposal	Maintenance Dredging of Garden Island Wharves
What project phase is the proposal at?	ScopingFeasibilityDetailed designOther
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	
Proponent and/or DMA to complete		
Description of the proposal – describe the key characteristics of the proposal in accordance with EAG 1.	Excavation of accumulated sediments at Garden Island berthing pockets alongside existing wharves and within vessel turning circle areas to return navigable depth to original so vessels can continue to access Garden Island (Figure 1).	
	Some 1,900m ³ to be excavated from four locations in Careening Bay (Figure 2) and some 5,480m ³ from the Armaments Wharf at Sulphur Bay (Figure 3). These figures also show the indicative location of the proposed spoil disposal grounds which have been selected to be retentive of spoil and remote from seagrass beds.	
	The material to be excavated at the Armaments Wharf is not contaminated and will be disposed of back into Cockburn Sound approximately 400 m East of the end of the wharf in deep waters (>15m) some 200 m from the existing spoil ground used for the previous dredging undertaken at this site in 2003 (Refer RSD).	
	About two-thirds (~1,300m³) of the material to be excavated from Careening Bay has detectable levels of antifouling paints (TBT) (Refer Sediment Characterisation Report – Appendix A, Refer RSD). However subsequent elutriate testing has returned concentrations well below the applicable Initial Management Trigger level established for a MEPA (90% species protection) by the State Environmental (Cockburn Sound) Policy 2005. It is therefore considered that this material is suitable for unconfined disposal into deeper waters (>15m) of Careening Bay.	
	The material to be dredged is predominantly fine sand. It is proposed to be excavated using dredging machinery similar to a long reach excavator with bucket fitted with a cutter suction pump attachment connected to a floating pipeline (Refer Figure 6 RSD). This is the preferred method because dredged material can be discharged direct to the seafloor via downpipe thereby minimising generation of turbidity in the water column.	
Timeframe in which the proposal is to occur (including start and finish dates where applicable).	Start and finish dates are not available, but the preferred timing for the works is February-	

Proponent and/or DMA to complete	
	March 2016. Conversely, December and January are not preferred as this is traditionally a period of high port operational requirement. Spring (September-November) is also not favoured by the WA Department of Fisheries because this is the crab and snapper spawning period, both of which fisheries are currently in decline. Hence the works could occur at any time of the year from February to August, but will not occur during Spring and will not occur during December and January. It is anticipated that excavation and disposal works at both locations will be no longer than two weeks in total duration and is likely to be no more than a few days at each location.
Details of any staging of the proposal.	No staging anticipated
What is the current land use on the property, and the extent (area in hectares) of the property?	Naval base
Have pre-referral discussions taken place with the OEPA?	Yes: Case Number CMS15182; Meeting on 24 June 2015 with Hans Jacob and Leanne Thompson of OEPA and again with Leanne
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.	Thompson on 6 November.
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 #:

1.4 Location

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

Proponent, DMA and Third Party to complete	
Name of the Local Government Authority in which the proposal is located.	City of Rockingham
Location:	HMAS Stirling Naval Base
 a) street address; lot number; suburb; and nearest road intersection; or 	Garden Island
b) if remote the nearest town; and distance and direction from that town to the proposal site.	
Have maps and figures been included with the referral (consistent with <u>EAG 1</u> where appropriate)?	⊠ Yes □ No
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.	
Proponent and DMA to complete	
Have electronic copies of spatial data been included with the referral?	⊠ Yes □ No
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 	

1.5 Significance test and environmental factors

Proponent, DMA and Third Party to complete		
What are the likely significant	Benthic Communities and Habitat	
environmental factors for this proposal?	☐ Coastal Processes	
	Marine Fauna	
	☐ Flora and Vegetation	
	☐ Landforms	
	☐ Subterranean Fauna	
	☐ Terrestrial Environmental Quality	
	☐ Terrestrial Fauna	
	☐ Hydrological Processes	
	☐ Inland Waters Environmental Quality	
	☐ Air Quality & Atmospheric Gases	

Proponent, DMA and Third Party to comp	olete		
	☐ 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?	Please outline in two paragraphs or less. The proposal is considered most unlikely to have a significant effect on the environment or values of Cockburn Sound. The short duration of dredging means that any turbidity created by the works will pose minimal risk to adjacent shallow water seagrass beds (Refer Seagrass Risk Assessment by Dr Julia Phillips, Appendix D RSD). Proposed timing restrictions on works will also pose minimal risk to resident marine fauna such as Little Penguins (Refer Ecology of Little Penguin Report by Dr. Belinda Cannell, Appendix C RSD) and the success of the crab and snapper spawning event during Spring in Cockburn Sound.		
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	☐ Yes No		
a separate attachment in hard copy.			
 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 decision-making authority?	а		
Is rezoning of any land required before the proposal can be implemented? If yes, please provide details.	e Yes No		

2.1.2 Regulation of aspects of the proposal

Complete the following to the extent possible.

Proponent to complete			
Do you have legal access required for the implementation of all aspects of the proposal?	⊠ Yes □ No		
If yes, provide details of legal access authorisations / agreements / tenure.	HMAS Stirling and Garden Island is owned by the Commonwealth.		
If no, what authorisations / agreements / tenure is required and from whom?	Control of access to Naval Waters is governed by the Control of Naval Waters Act 1918 and Regulations Under Regulation 4.1 the Superintendent of Naval Waters (Commanding Officer HMAS Stirling) may prohibit or restrict the entry of vessels into specified parts of Naval Waters		

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

Proponent to com	Proponent to complete					
Aspects* of the proposal	Type of approval	Legislation regulating this activity	Which State agency /entity regulate this activity?			
Dredging	Environmental approval	EP Act 1986	EPA			
Spoil disposal	Environmental approval to dispose of dredge spoil in Cockburn Sound in an area under Naval control. Note that the proponent is NOT applying for a Sea Dumping Permit from the Commonwealth DoE because Cockburn Sound is in State internal waters where the COMMONWEALTH ENVIRONMENT PROTECTION (SEA DUMPING) ACT 1981 does not apply.	EP Act 1986	EPA			
Proposed works	Conditional approval to undertake the works has been received from the DoD Directorate of Environment Protection and Assessment (DEPA)which has specified a minimum range of Environmental Protection Measures to be implemented when the works are undertaken (Refer RSD Appendix G)	EPBC Act 1999	DoD DEPA			

^{*}e.g. mining, processing, dredging

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

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

Pr	oponent to complete	
1.	Does the proposal involve an action that may be or is a controlled action under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)? (Note that proponent is not submitting an EPBC Referral to Commonwealth DoE. An Environment Review undertaken for the project concluded that the proposal is not likely to have a significant impact on MNES protected by the EPBC Act and therefore does not need to be referred to the Environment Minister for Assessment and Approval)	☐ Yes ☐ No If no continue to Part A section 2.1.4.
2.	What is the status of the decision on whether or not the action is a controlled action?	 ☑ Proposal not 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: Ref #:
4.	If the action has been assessed, provide the decision in an attachment. Has an attachment been provided?	☐ Yes ☐ No
5.	Do you request this proposal to be assessed under the bilateral agreement?	☐ Yes ⊠ No
	nplete the following to the extent possible for the Public (umentation.	Comment of EPBC Act referral
Pr	oponent to complete	
6.	Have you invited the public to comment on your referral documentation?	☐ Yes ⊠ No
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

Propo	Proponent to complete			
(f)	how the relevant documents may be obtained	☐ Yes	☐ No	
(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	
	/ere any submissions received during the public omment period?	☐ Yes	□No	
	ave public submissions been addressed? If yes provide ttachment.	☐ Yes	□No	

2.1.4 Other Commonwealth Government Approvals

Proponent, DMA and Third Party to complete				
Is approval require Commonwealth G part of the propos	overnment/s for any	☐ Yes ☐ No If yes, please complete the table below.		
Agency / Authority	Approval required	Applic lodg		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.

Pro	Proponent, DMA and Third Party to complete			
(1)	Referral Support Document (RSD)	Aurecon	A summary Environmental Review in the structure of an API Category A document in accordance with guidance provided in EAG 14.	
(2)	Appendix A Sediment Characterisation and Contaminant Assessment	Aurecon	Results of sediment sampling survey carried out in accordance with Environmental quality criteria reference document for Cockburn Sound 2015 and NAGD 2009 and analysed for contaminant status and PSD.	
(3)	Appendix B	Geo Oceans Pty	Results of towed camera survey in	

Proj	Proponent, DMA and Third Party to complete				
	Benthic Habitat Survey	Ltd	immediate vicinity of dredging locations and surrounds within 500m.		
(4)	Appendix C Ecology of Little Penguins of Garden Island	Dr. Belinda Cannell	Description of nesting locations and daily and seasonal activity of Little Penguin colony in Careening Bay.		
(5)	Appendix D Seagrass Risk Assessment	Aurecon (Dr. Julia Phillips)	Assessment of risk posed to nearshore shallow water seagrasses from short term and intermittent turbidity created by proposal.		
(6)	Appendix E Tidal Currents at dredge areas	Aurecon	Description of prevailing tidal and wind driven current direction in dredging and spoil disposal locations and spoil stability assessment.		
(7)	Appendix F Additional Stakeholder Consultation Information	Aurecon	Additional information on stakeholder consultations.		
(8)	Appendix G DoD DEPA Environmental Protection Measures	DoD DEPA	Specific Environmental Protection Measures to be implemented when undertaking the maintenance dredging works at Garden Island Wharves HMAS STIRLING WA.		

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 <u>Referral of a Proposal under s38 of the EP Act EAG No.16 - Appendix A</u> (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 \underline{each} of the significant environmental factors, complete the following table (Questions 1 – 10).

Propo	Proponent to complete. DMA and Third Party to complete to the best of their knowledge.			
1	Factor, as defined in <u>EAG 8</u>	BENTHIC COMMUNITIES AND HABITAT		
2	EPA Objective, as defined in <u>EAG 8</u>	To maintain the structure, function, diversity, distribution and viability of benthic communities and habitats at local and regional scales.		
3	Guidance - what established policies, guidelines, and standards apply to this	EAG 3 Protection of BPPH EAG 7 Marine dredging Proposals		
	factor in relation to the proposal?	EAG / Warnie dreuging Proposals		
4	Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including:	Consultation undertaken with key stakeholders including OEPA, CSMC, Fremantle Ports, DPaW, WA Department of Fisheries, DER, DoT and recreational fishing, yachting and boating clubs.		
	anticipated level of public interest in the impact;	Refer Stakeholder consultation summary, Table 5 of RSD.		
	consultation with regulatory agencies; and	Project considered too small and in Naval Controlled waters restricted to public access to warrant wide community consultation.		
	consultation with community.			

Proponent to complete. DMA and Third Party to complete to the best of their knowledge.

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. Cockburn Sound is the most heavily used body of water in WA. It is used for commercial and recreational fishing, aquaculture, industrial water supply and navigation and loading of export vessels. The Sound used to support extensive seagrass meadows in shallow (<10m) waters around its borders, but during the 70's much of the seagrass (~70%) along the eastern shores was lost as a result of light shading caused by nutrient enrichment of the water body. Remnant seagrass beds now occur only on the western (Garden Island) and southern (Rockingham) shores of the Sound and on Parmelia bank to the North.

The Sound is now managed by the Cockburn Sound Management Council (CSMC) which was established in 2000 by the State Government of WA. In 2005 the State Government released the State Environmental (Cockburn Sound) Policy (2005) (SEP) and supporting documents. The SEP defines environmental quality objectives and specific quality criteria against which to audit environmental performance. In the same year, the CSMC released its Environmental Management Plan for Cockburn Sound and its catchment. The State Environmental (Cockburn Sound) Policy was revised in 2013 but is still in draft form (SEP 2013).

In 2009, the Environmental Protection Authority issued an Environmental Assessment Guideline for Protection of Benthic Primary Producer habitats (BPPH) in WA's marine environment (EAG 3). Cockburn Sound is specifically identified in this EAG as a degraded area where a substantial portion of BPPH has already been lost. The EPA's objective in Cockburn Sound is to ensure no net loss of the remaining seagrass habitat and where possible, to generate a net gain. To this end, the CSMC regularly monitors the condition of seagrass health along the east coast of Garden Island.

The most recent State of Cockburn Sound Report 2014 (CSMC 2015) noted that meadows in shallow waters near the northern end of the Island and adjacent the naval base settlement north of Colpoy's Point are thinning, whilst meadows in deep water are expanding. The cause of the thinning is not known but does not appear to be linked to nutrient enrichment.

Propo	nent to complete. DMA and Third Party	to complete to the best of their knowledge.
5		The areas to be excavated in Careening Bay were originally dredged in 1973 and then again in 1993 when depths were increased to design depth of -11m CD. Careening Bay has not been dredged since that time.
		The Armaments Wharf approaches and berth were originally dredged in 1977 to -10.5m CD and then deepened to -13m CD in 2003 when ~ 12,500m ³ of material was dredged by CSD over a period of 7 days and disposed in a spoil ground located 200m NE of the seaward end of the jetty (DALSE 2003).
6	Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.	No direct impacts on seagrass habitat are anticipated as no seagrasses are present in the proposed dredging and spoil disposal areas. However seagrasses occur in shallow waters nearby the proposed dredging areas. Proposed spoil disposal locations are in deep water
		(>15m) where bioturbated fine sands and silts already occur and are known to be stable. The disposal site at Armaments Wharf was developed in 2003 and is known to be retentive.
		Potential indirect impacts to seagrass BPPH could arise from turbidity induced light attenuation and sedimentation generated by dredging and disposal works. However adverse impacts are considered most unlikely owing to the very short term duration of works, distance of works from nearest seagrasses and shallow depth of seagrasses (not light limited).
		Refer Seagrass Risk Assessment Appendix D RSD and Section 4.1 of RSD.
		Note: EAG 7 guidance for impact modelling has not been applied because the proposal is not considered to be a significant dredging project.
7	Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed:	Dredging is required to keep Fleet Base West operational. Negligible risk of adverse impact occurring to Benthic Primary Producer Habitat.
	Avoidance - avoiding the adverse environmental impact altogether;	Hence no mitigation measures are proposed other than using the selected spoil grounds
	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.	

Propo	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.	No residual adverse impacts to Cockburn Sound seagrass communities are anticipated.			
	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. 				
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	 			
10	Describe any assumptions critical to your conclusion (in Question 9). e.g. particular mitigation measures or regulatory conditions.				

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.

Propoi	Proponent to complete. DMA and Third Party to complete to the best of their knowledge.			
1	Factor, as defined in <u>EAG 8</u>	MARINE ENVIRONMENTAL QUALITY		
2	EPA Objective, as defined in <u>EAG 8</u>	To maintain the quality of water, sediment and biota so that the environmental values, both ecological and social, are protected.		
3	Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?	State Environment (Cockburn Sound) Policy 2013 (SEP 2013) and supporting documents as revised in March 2015. EAG 15 Protecting Quality of WA's Marine Environment.		

Propo	Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
4	Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including:	Consultation undertaken with key stakeholders including OEPA, CSMC, Fremantle Ports, DPaW, WA Department of Fisheries, DER, DoT and recreational fishing, yachting and boating clubs.	
	anticipated level of public interest in the impact;	Refer Stakeholder consultation summary, Table 5 of RSD.	
	consultation with regulatory agencies; and	Project considered too small and in Naval Controlled waters restricted to public access to warrant wide community consultation.	
	consultation with community.		
5	Baseline information - describe the relevant characteristics of the receiving environment. This may include: regional context;	Environmental values of Cockburn Sound specified in SEP 2005 as: • Ecosystem health; • Fishing and aquaculture;	
	known environmental values, current	Recreation and aesthetics;	
	quality, sensitivity to impact, and current level of cumulative impacts.	Cultural and spiritual values; and	
		 Industrial water supply. 	
		Careening Bay is designated a MEPA; Sulphur Bay a HEPA in SEP 2005.	
		The EQC Reference Document 2015 for Cockburn Sound specifies EQG's and EQS's for HEPA's and MEPA's.	
		Current quality of Cockburn Sound is summarised in State of Cockburn Sound Report 2014 (CSMC 2015). Analysis of nutrient enrichment data indicates that the Garden Island Settlement (GIS), monitoring sites are a concern. However water quality in the remainder of the western part of Cockburn Sound is generally considered satisfactory.	
6	Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.	A sediment characterisation study has been completed to determine the suitability of dredged material for unconfined disposal into deep waters of Cockburn Sound (Appendix A RSD). Environmental quality criteria from both the National Assessment Guidelines for Dredging 2009 and the EQC Reference Document for Cockburn Sound March 2015 were used to assess suitability for disposal. Results indicated that sediments were mostly uncontaminated except for TBT, where a level of contamination exists in sediments adjacent some of the wharves in Careening Bay. However subsequent elutriate testing of composite samples of these sediments reported concentrations below the Initial Management Trigger applicable to both MEPA's and HEPA's. Hence the material was considered suitable for disposal into deep water. Intermittent and localised water turbidity during excavation and disposal works is anticipated for a period of a few days at each dredging area.	

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:	Mitigation not required owing to short duration of works at each location and clean nature of sediments.
	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.	
8	Residual impacts – review the residual impacts against the EPA objectives.	No adverse residual impacts anticipated
	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. 	
9	EPA's Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? <i>Refer to</i> <u>EAG 9</u>	
10	Describe any assumptions critical to your conclusion (in Question 9). e.g. particular mitigation measures or regulatory conditions.	

Propoi	Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
1	Factor, as defined in <u>EAG 8</u>	MARINE FAUNA	
2	EPA Objective, as defined in <u>EAG 8</u>	To maintain the diversity, geographic distribution and viability of fauna at the species and population levels.	
3	Guidance - what established policies, guidelines, and standards apply to this factor in relation to the proposal?	State Wildlife Conservation Act 1950 Fish Resources Management Act 1999	
4	Consultation - outline the need for consultation and the outcomes of any consultation in relation to the potential environmental impacts, including:	Consultation undertaken with key stakeholders including OEPA, CSMC, Fremantle Ports, DPaW, Dr B.Cannel, WA Department of Fisheries, DER, DoT and recreational fishing, yachting and boating clubs.	
	 anticipated level of public interest in the impact; 	Refer Stakeholder consultation summary, Table 5 of RSD.	
	 consultation with regulatory agencies; and 	Project considered too small and in Naval Controlled waters restricted to public access to	
	consultation with community.	warrant wide community consultation	
5	Baseline information - describe the relevant characteristics of the receiving environment.	Cockburn Sound supports a mussel aquaculture industry and commercial and recreational crab fisheries and at times a recreational snapper fishery.	
	This may include: regional context; known environmental values, current quality, sensitivity to impact, and current	It also supports a resident population of bottlenose dolphins which form the basis of an ecotourism business based in Rockingham.	
	level of cumulative impacts.	A colony of Little Penguins has established in Careening Bay (Refer Appendix C RSD).	
		Carnac Island to the north of Garden Island is a haul-out area for young Australian Sea lions.	
		Of the above marine fauna, only the Little Penguin occurs in the immediate vicinity of the proposed works in Careening Bay.	

Propo	Proponent to complete. DMA and Third Party to complete to the best of their knowledge.		
6	Impact assessment - describe the potential impact/s that may occur to the environmental factor as a result of implementing the proposal.	Very short term (days) temporary disturbance in localised areas adjacent to wharves in Careening Bay and Sulphur Bay. Commercial and recreational fisheries are not at risk from proposal as works in Sulphur Bay will not be undertaken during the spring snapper and crab spawning period of September-January. Dolphin experience ecotourism venture also not at risk as access to works areas is restricted by Naval Waters control. Local population of penguins also not at risk, although individuals may be at risk if in area at time of dredging. However this is considered unlikely given their nocturnal daily migration and the fact that dredging will only occur during daylight hours and the dusk rafting area in Careening Bay will be avoided. Furthermore, penguins are known to be in lower abundance during February/March each year. Should slippage in timing of works occur into the April – June period, works at Sulphur Bay will be conducted during night time hours only. Introduction of Invasive Marine Pests from dredging equipment is a potential risk that can be managed by implementing WA Department of Fisheries risk assessment tool 'Vessel Check'. Refer Section 4.3 of RSD for a more detailed assessment.	
7	Mitigation measures - what measures are proposed to mitigate the potential environmental impacts? The following should be addressed:	Undertake IMP risk assessment and confirm cleanliness of dredging equipment prior to arrival. Works will only be conducted between February	
	Avoidance - avoiding the adverse environmental impact altogether;	and August to avoid spring - summer crab and snapper spawning period and penguin chick rearing	
	Minimisation - limiting the degree or magnitude of the adverse impact;	season. Restrict working hours in Careening Bay to daylight hours and avoid parking equipment near evening rafting area for penguins. If dredging between April-August work in Sulphur Bay will only be undertaken at night to avoid interruption of penguin foraging activities in northern waters of the Sound. Maintain marine fauna watch during operations and temporarily stop works if high risk of individual injury/mortality identified.	
	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.		

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.	No adverse residual impacts are anticipated.	
	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. 		
9	EPA's Objective – from your perspective and based on your review, which option applies to the proposal in relation to this factor? <i>Refer to</i> <u>EAG 9</u>	 	
10	Describe any assumptions critical to your conclusion (in Question 9). e.g. particular mitigation measures or regulatory conditions.	Marine fauna watch during daylight operating hours. Dredging equipment will be free of IMP.	

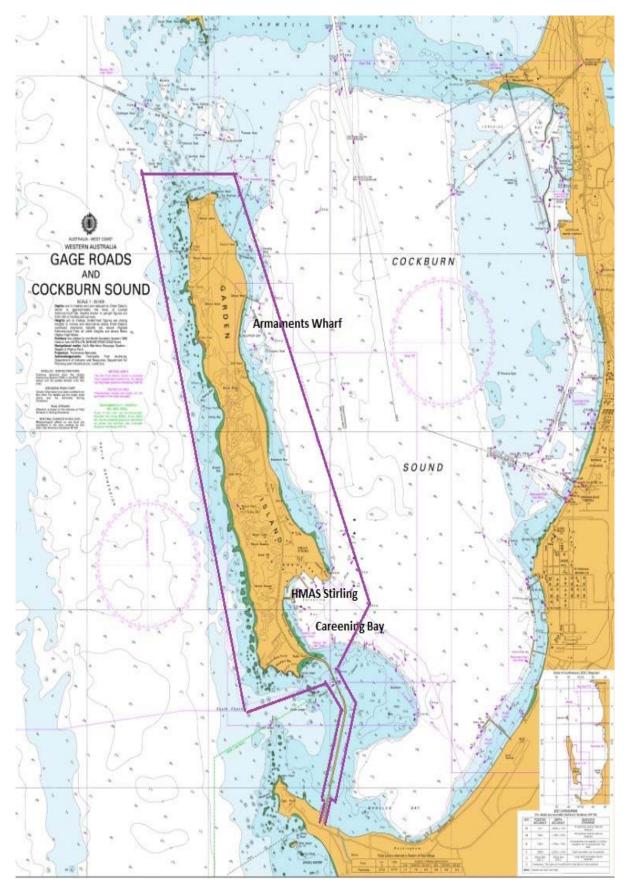


Figure 1 Project location showing HMAS Stirling, Careening Bay, Armaments Wharf and the naval waters boundary

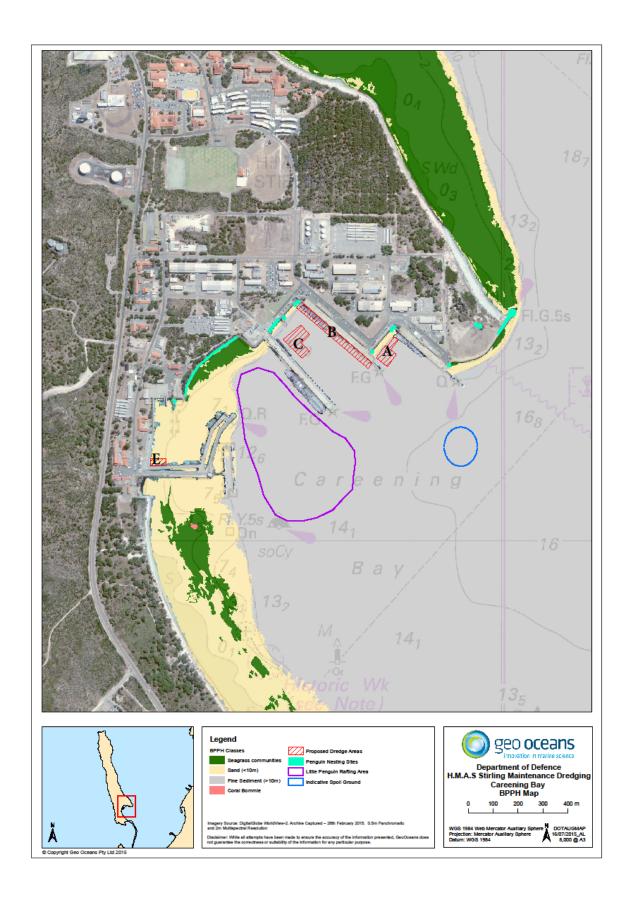
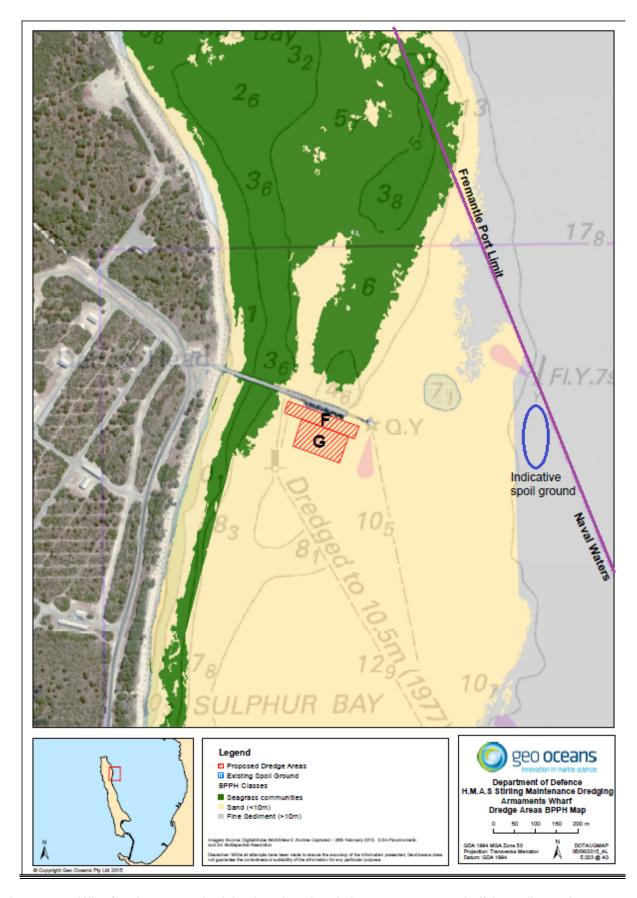


Figure 2 Careening Bay maintenance dredging locations in relation to seagrass, Little Penguin nesting sites, Little Penguin rafting areas and offshore disposal sites



<u>Figure 3 Armaments Wharf maintenance dredging locations in relation to seagrass and offshore disposal sites</u>

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