

Our ref: A516027 : ID3656
Your ref: AU000-HS-PLN-600-00010, Rev 0
Contact: [REDACTED]
Email: [REDACTED]

[REDACTED]
BP Developments Australia Pty Ltd
Level 8, QV1
250 St Georges Terrace
PERTH WA 6000

Dear [REDACTED]

ENVIRONMENT PLAN SUBMISSION – REQUEST FOR FURTHER WRITTEN INFORMATION – GREAT AUSTRALIAN BIGHT EXPLORATION DRILLING PROGRAM STROMLO-1 AND WHINHAM-1 ENVIRONMENT PLAN (EPP 37, EPP 39)

I write with regard to the Great Australian Bight Exploration Drilling Program Stromlo-1 and Whinham-1 Environment Plan (EPPs 37, 39) (Document No. AH000-HS-PLN-600-00010, Revision 0, submitted to NOPSEMA on 18 August 2016 by BP Developments Australia Pty Ltd. An assessment of the plan has commenced in accordance with NOPSEMA's assessment policies.

Subregulation 9A(1) of the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (the Environment Regulations) allows NOPSEMA to request the titleholder to provide further written information about any matter required by these Regulations to be included in an EP.

Prior to making a decision on whether to accept the plan, NOPSEMA requests that further written information is provided in relation to each matter outlined in Attachment 1. Please provide this information no later than **30** days from the date of this letter. If BP Developments Australia Pty Ltd requires a longer period of time, it must advise NOPSEMA in writing within 14 days of receipt of this letter with an alternative date for provision of the information.

Matters for which further information is requested are found throughout the EP and include the description of the environment, EPBC Act protected matters, underwater sound emissions, planned discharges, unplanned discharges, the OPEP, OSMP, consultation with stakeholders and key elements of the implementation strategy. Where examples are provided in the attached table please note that they are not an exhaustive list of matters requiring attention.

Due to the quantity of information required and to ensure an efficient assessment process, NOPSEMA requests that BP inserts the information in the EP for assessment and uses the attached table to provide references as to where the requested information has been incorporated in the EP.

NOPSEMA's preferred method for the submission of electronic documents is through the secure website: <https://securefile.nopsema.gov.au/filedrop/submissions>. Guidance on the use of the

submission system and support contacts may be found on the information page:
<http://www.nopsema.gov.au/secure-file-transfer>.

In accordance with subregulation 9A(3), all information provided becomes part of the EP and NOPSEMA must have regard to the information as if it had been included in the submitted EP.

Please be advised that in accordance with paragraph 10(1)(c) of the Environment Regulations, if NOPSEMA is unable to make a decision on the EP within 30 days of submission, NOPSEMA must give the titleholder notice in writing and set out a proposed timetable for consideration of the plan.

Given the timeframe afforded to the titleholder to respond to NOPSEMA's request for further written information, NOPSEMA is unable to make a decision within 30 days of the submission. Consequently, NOPSEMA proposes to provide you with an assessment decision within 30 days of receiving the requested information.

Should you require further information or clarification of the information contained in this letter, please contact [REDACTED], who is the lead assessor for your submission, on Tel: [REDACTED]

Yours sincerely,

[REDACTED]

28 September 2016

Attachment 1 – Environment Plan Response Note - request for further written information

cc: [REDACTED]



Environment Plan Response Note

(Request for further written information)

Date of Request:	28 September 2016
Specified Period:	30 days
Date information due:	28 October 2016

NOPSEMA Ref No:	3656	NOPSEMA Obj ID:	A516027
Activity name:	Great Australian Bight Exploration Drilling Program	Titleholder:	BP Developments Australia Pty Ltd
Submission Title:	Great Australian Bight Exploration Drilling Program Stromlo-1 and Whinham-1 EP (EPPs 37, 39)	Rev:	0
Document ID:	AU000-HS-PLN-600-00010	Date:	18 August 2016

Pursuant to regulation 9A of the Commonwealth Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009, further written information about each matter required by the regulations to be included in an environment plan (EP) is requested from the titleholder, as detailed in the table below.

Item	Section of Submission	Environment Regulation	Further written information requested	Response from Titleholder
Sensitive Environments – Oil Spill Monitoring Plan				
1	S4.4, S7.7, S7.8, OSMP	13(2), 13(5,6), 14(8D)	Seasonal variation in physical parameters Currently neither the description of the environment nor the risk assessment provide detailed information about seasonal variation in weather and ocean parameters and/or how this may affect impacts in the event of a spill in accordance with seasonal variation in some receptors. However, this information is provided in summary and has been used to inform the oil spill modelling. Will the documents that are still in development for the OSMP include summary tables or other means of ensuring timely implementation of monitoring where potential impacts to receptors can be reasonably predicted according to the season?	While the submission provides a framework for the monitoring that would be undertaken to assess impacts to the environment from oil pollution and response activities, a large amount of the preparation for this monitoring is yet to be done. It may be appropriate for some of this work to be undertaken prior to the commencement of the activity or in the event of a spill occurring, however, where this is the case please provide the reasoning as to why this approach is appropriate in relation to the spill risk presented (e.g. time periods between submission and commencement of activity, time frames until contact). Details for the monitoring not yet completed includes: baseline data compilation, sampling methods, contracting of service providers, ensuring the monitoring meets the requirements for management of protected matters and state and commonwealth reserves, identification of priority receptors and feasibility of mobilisation time frames. There are commitments in the EP to complete some of these aspects "prior to the commencement of the activity i.e. before spudding of the first well" (section 2.1 p9 OSMP), (e.g. Monitoring Implementation Plan (MIP) section 3.1 p16 OSMP, First Strike Mobilisation Plan (FSMP) section 3.3.6 p21 OSMP, assessment of readiness to implement s3.3.10 p22 OSMP and prior to spudding of the first well (e.g. Sampling and Analysis Plans (SAPs) s4 p29 OSMP). Further information is required to determine whether the final developed monitoring plans will be appropriate either through provision of this information in the submission or through a thorough demonstration of the process and timelines by which this information will be collected.

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2	S4.6.6, S4.6.8, S4.6.4, S4.5.1.6, OSMP	13(2), 13(5,6), 14(8D)	<u>Social and economic receptors</u> • Please identify and describe important areas in the AMBA for recreational fishing (section 4.6.6) and tourism (currently only identified and described for South Australia) (section 4.6.8). • Please describe the coastal settlements identified as at risk from a potential spill (section 4.6.4) and identify all relevant infrastructure (e.g. currently noted as present generally in section 4.5.1.6). • Please update the evaluation of potential impacts to these receptors from an oil spill and describe how this information would be used to inform development of an OSMP.	
3	S4.6.5, OSMP	13(2), 13(5,6), 14(8D)	<u>Commercial fishing and aquaculture in Victoria, Tasmania and NSW</u> Fisheries in Victoria, Tasmania and NSW are listed (section 4.6.5) but not described. • Please provide a description of these fisheries. • Please also identify and describe any aquaculture facilities present within the AMBA within these states (if any).	
4	S4.6.2.2, S4.6.3.3 S4.6.9, S7.8.10, OSMP	13(2), 13(5,6), 14(8D)	<u>State marine reserves or coastal protected areas</u> • Please provide information further to the general summary that has been provided in sections 4.6.2.2 and 4.6.3.3 to identify and describe all state marine reserves or other coastal protected areas in the AMBA. • Please also identify and describe shipwrecks or other heritage features protected under state legislation (if any) in the AMBA, noting external context provided in s7.8.10 p479 that SA DEWNR requested an assessment of potential impacts to State European Maritime Heritage. It is noted that Commonwealth shipwrecks are included in section 4.6.9.	
5	Table 1-1, S4.6.9.2, S4.6.3.1, Figure 4-45, S4.6.9.1, S4.5.2.6, S4.5.2.9, S4.5.2.10, S4.6.1.4, Table 4-9, Figure 4-41, Table 7-27, S4.5.2.7.f, OSMP	13(3), 13(4), 13(5,6), 14(8D)	<u>Identification and description of relevant matters protected under the EPBC Act</u> • Please provide further rationale for the inclusion and exclusion of items identified by the protected matters search in the EP and revision of the receptors where relevant, to ensure that the monitoring program that would be implemented in the event of a spill will be appropriate in terms of scope and management requirements. Noting that the EP states in Table 1-1 that the report contained terrestrial receptors that were considered outside the bounds of the AMBA, the basis for exclusion of other receptors, was not always clear. For example: ○ Of 17 National Heritage Places listed in the search, four are included and described, many are terrestrial; however, the basis for exclusion of the Western Tasmania Aboriginal Cultural Landscape, which includes coastal shoreline features has not been included or described in section 4.6.9.2. ○ Of 14 Wetlands of International Importance listed in the search, 11 are listed in the EP as intersecting the AMBA (section 4.6.3.1, Figure 4-45) and 9 are described, but the identities of the wetlands listed in the EP are not all the same as the wetlands identified in the search. Furthermore, for descriptions of relevant wetlands, please make specific reference to the "ecological character" as required under regulation 13(3)(c).	

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			- The EP states that there are no Commonwealth Heritage Places located within or immediately adjacent to the coast of the AMBA (section 4.6.9.1 p245), however further detail is required on the rationale for exclusion for some of these that were identified by the protected matters search e.g. Tasmanian Seamounts Area, Jervis Bay Territory, Malabar Headland, Beecroft Peninsula including Crocodile Head Area and Currarong Rock Shelters Area which appear marine or coastal in nature. - Seabirds and shorebirds that are described in full (section 4.5.2.6) and fish species that are described in full (sections 4.5.2.9 and 4.5.2.10) versus those that are not described. - The EP does not acknowledge or describe the Critical Habitat for the shy albatross, Albatross Island, the Mewstone and Pedra Branca, which is identified in the protected matters search. - The EP states that there are 15 KEFs (section 4.6.1.4, Table 4-9, Figure 4-41) and describes 18, while the search tool only lists the 13 spatially defined KEFs. However, a Western Rock Lobster KEF is identified on Figure 4-41 p208, is mentioned in brief in Table 7-27 p429 and western rock lobsters are described in brief in section 4.5.2.7.f.	
6	S4.6.3.1, Table 4-11, Table 4-10	13(3), 13(5,6), 14(8D)	<u>Description of relevant matters protected under the EPBC Act</u> Please provide further information to describe: - The 59 'marine and coastal zone' nationally important wetlands within the AMBA and listed in Table 4-11 with the exception of those already described in section 4.6.3.1 as Ramsar wetlands. - The representative habitats included in each CMR in Table 4-10 (relevant for the management of reserves under Australian IUCN Reserve Management Principles in the absence of a reserve management plan).	
7	Table 1-3, Table 1-4, section 2.3 and 4 of OSMP	13(2), 13(4), 14(8D)	<u>State legislative requirements</u> Tables 1-3 and 1-4 show a summary of relevant South Australian and Western Australian legislation that may be of relevance for oil spill response and monitoring. Currently, potentially relevant legislation from Victoria, Tasmania and New South Wales has not been included in the EP. - Please provide information describing the requirements of relevant legislation for all states in the AMBA. - In addition, please provide information about how arrangements for the OSMP will ensure that legislative requirements for state marine parks, coastal protection areas and declared wetlands for all states will be met in the implementation of an oil spill monitoring plan, noting that there is a commitment that they will be considered (section 2.3 p14 and section 4 29 of OSMP).	

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8	Table 1-1, section 2.3 and 4 of OSMP	13(3), 13(4), 14(8D)	<u>Legislative requirements under the EPBC Act</u> Table 1-1 shows a summary of legislative considerations under the EPBC Act. Noting the commitment that these will be considered (section 2.3 p14 and section 4 29 of OSMP), please provide further information to demonstrate that legislative requirements from the following will be identified and considered in the implementation of an oil spill monitoring plan: 1. Recent conservation advice such as for humpback whales, sei whales and fin whales 2. Industry guidelines for avoiding impacts to migratory shorebirds 3. Management plans for Ramsar wetlands in the AMBA 4. IUCN Reserve Management Principles for Commonwealth Marine Reserve Networks without in force management plans 5. Management Plan for the South East Commonwealth Marine Reserve Network 6. Please also provide information to describe that will be used to ensure that the most current management arrangements for listed species/communities and reserves will be identified and taken into account in the development/maintenance of monitoring plans and in the event of a spill.	
9	S7.7	13(5,6), 14(8D)	<u>Risk evaluation for a vessel spill</u> Section 7.7 of the EP provides the risk evaluation for the vessel collision spill scenario. Please provide further information about: • Potential variation in the level of impact to various receptors from the spill according to seasonal timing and location of a spill; and • Potential impacts on receptors other than the individual taxa described e.g. (ecological) functions and values of the GAB CMR, (commercial) SBT fishery and any others identified.	
10	Section 4, S7.8, OSMP	13(5,6), 14(8D)	<u>Receptors likely to be monitored according to the risk evaluation</u> • Please describe the process by which priority receptors and shorelines would be matched to the receptors described in section 4 of the EP to ensure an appropriate monitoring program would be implemented. Alternatively, provide information to detail the likely specific receptors that would be monitored in the event of a spill and the basis for this selection e.g. learnings from the Deepwater Horizon monitoring program, consultation with relevant stakeholders.	
11	S7.8.6.1.j, S4.5.2.9, S4.5.2.10, S7.8.8.a	13(2), 13(5,6), 14(8D)	<u>Risk evaluation for fish species</u> • Please provide further information on to evaluate the impacts from oil on fish species (section 7.8.6.1.j p 430) to address the variation in this group category as described in sections 4.5.2.9 (demersal fishes) and 4.5.2.10 (pelagic fishes, including listed and conservation dependent species). • Furthermore, noting coverage of potential impacts to commercial fishing and aquaculture in the EP (section 7.8.8.a p439) and the list of currently identified Commonwealth, SA and WA fisheries that could be impacted in the event of a spill, please provide information to identify and describe commercial fisheries and aquaculture that may be	

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12	S7.8.7.d, S7.8.10, S7.8.9	13(3), 13(5,6), 14(8D)	affected in other states in the AMBA (i.e. Vic, Tas, NSW) in the event of a spill or outline the process and time frames by which this will occur. <u>Risk evaluation for matters protected under the EPBC Act</u> - Please provide an updated detailed risk evaluation for potential impacts from an oil spill for all matters protected under the EPBC Act in accordance to updates from addressing item 5 in this letter e.g. include an evaluation for impacts to cultural heritage (section 7.8.7.d p438) (also noting external context provided in s7.8.10 p479 that SA DEWNR requested an assessment of potential impacts to State European Maritime Heritage), KEFs, CMRs, Ramsar wetlands and listed heritage places (section 7.8.9 p446). - In addition, please provide the basis by which this evaluation will be used to prioritise monitoring sites and programs in the event of a spill, and explain how conservation advices and plans have been “considered and applied” (Table 7-40) and how they will be considered and applied during the development of the sampling and analysis plans (section 2.3 p14 and section 4 29 of OSMP).	
13	S3.1 and S3.5.1 of OSMP, Table 3.2 OSMP, S7.8.10	14(8D)	<u>Baseline data compilation</u> - Please clarify the extent of the baseline data that will be established as part of the Monitoring Implementation Plan (s3.1 and s3.5.1 OSMP), compiled “upon notification” of a spill (Table 3.2 p20 OSMP) and compiled “during a spill” (Table 3.2 p20 OSMP). - Please demonstrate why this approach is appropriate, given to some extent baseline data will determine other factors in the design of the monitoring program such as for example, sampling methods, study sites, study receptors and considering requests by WA government agencies during consultation (DoF and DPAW) concerning baseline information (e.g. section 7.8.10 p479).	
Description of the Environment – Fisheries				
14	Section 4.6.5.2 EP p232	13(2)	The EP indicates that State managed fisheries are restricted to shallow waters along the coast which do not occur near the well locations (Page 232). However, activities at the well location may result in impacts and risks to several state fishery species, including the rock lobster and giant crab. In addition, other State managed fisheries such as the abalone and charter boat fishery have not been identified or described, with the marine scalefish fishery incorrectly noted as ‘not intersecting’ the drilling area (Table 4-13). Please provide additional information to ensure all relevant values and sensitivities in the receiving environment have been described.	
Description of the Environment - Commonwealth Marine Reserves				
15	Section	13(3)	The EP has not listed the relevant Australian IUCN reserve management principles that apply to the activity, or	

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	4.6.2.1, EP p209		demonstrated through reasoned and supported arguments that the activity is not inconsistent with the principles (see NOPSEMA's Environment Plan Content Requirements and Activities within Commonwealth Marine Reserves Guidance Notes). Please describe the reserve management principles that apply to the activity, and demonstrate through reasoned and supported arguments that the activity is not inconsistent with these principles.	
Protected Matters - Physical Interaction – Collision with Cetaceans				
16	Section 6.1 EP p271	13(5)	<u>Control measures associated with cetaceans</u> The 'Australian Guidelines for Whale and Dolphin Watching' (DEWHA, 2005) has been referenced as one control for mitigating collisions with marine fauna. However, not all aspects of the Guidelines have been identified for implementation. Please provide a justification for those control measures which will not be implemented during the activity.	
17	Section 6.1 EP p271	13(7)a	<u>Environmental Performance Standards</u> Please provide appropriate environmental performance standards (EPS) for the control measures identified to mitigate potential impacts from collisions with marine fauna (Page 271). Additional EPS may include (though are not limited to) controls outlined in the referenced 'Australian Guidelines for Whale and Dolphin Watching'.	
18	Section 6.1 EP p271	13(7)c	<u>Measurement Criteria</u> Please provide appropriate measurement criteria (MC) for the EPO and EPS identified to mitigate potential impacts from collisions with marine fauna (Page 271). Additional MC may include (though are not limited to) records of attending inductions, and any new controls to be implemented following items noted in this information request.	
Protected Matters - Underwater Sound				
<i>The evaluation of environmental impacts and risks for the planned underwater noise emissions has been outlined in Section 6.5 of the EP (Page 281). Further information is required to demonstrate that the extent of potential impacts (i.e. area contacted in the receiving environment), severity of environmental impacts (i.e. ecological receptors and biological effects), and selection of control measures (e.g. items of equipment, procedures or personnel to mitigate potential impacts) associated with planned underwater noise emissions are acceptable and ALARP. Aspects of the EP for which further information is requested include:</i> <i>Severity of environmental impacts</i> <i>Control measures to mitigate impacts</i> <i>Environmental performance standards</i> <i>Measurement criteria</i> <i>These are further detailed below.</i>				

Item	Section of Submission	Environment Regulation	Further written information requested	Response from Titleholder
19	Section 6.5	13(5)	<u>Severity of Environmental Impacts:</u> The extent of underwater noise emissions predicted to occur from both the continuous MODU and pulsed VSP activities during the well campaign is presented in the 'Prediction of underwater noise associated with the operation of a drilling rig in the Great Australian Bight' modelling report (CMST, 2016). Based on the extent of area which may be affected following the planned underwater emissions of noise, further information is required to place the features of the environment (i.e. relevant protected matters, values and sensitivities) into the context of the environmental impacts identified to ensure all impacts and risks have been evaluated. Please provide additional details which: • Identify the presence of all protected matters, values and sensitivities which may occur within the extent of noise disturbance such as invertebrates residing in the Benthic Protection Zone, site-attached fish species associated with benthic habitats (e.g. Murray's Mount and Anna's Pimple) or commercially important species such as the deep sea crab; • Describe the severity of all relevant impacts including lethal and sub-lethal effects (such as mortality, permanent threshold shift, recoverable injury, temporary threshold shift and masking effects) to the values and sensitivities identified within the area predicted to receive levels of increased underwater noise; and • Further describe cumulative impacts from co-occurring noise sources acknowledged in Section 6.5.5 to justify the conclusion regarding negligible impacts.	
20	Section 6.5	13(5)	<u>Control Measures to Mitigate Impacts</u> Based on the evaluation of extent and severity associated with the emission of underwater noise, the EP has considered a range of control measures for mitigating potential impacts (Page 302). Further information is required to ensure relevant control measures have been identified and demonstrated to manage potential impacts to levels which are acceptable and ALARP. Please supply additional details which: 1. Provide details of all the control measures that will be used to reduce impacts from underwater noise to a level that is ALARP. Examples include, (though are not limited to) temporal or spatial control measures, additional EPBC Act Policy Statement 2.1 - Part B measures (such as night-time and poor visibility procedures, and adaptive management) and reduced VSP source output; 2. Justify the restriction of increased precaution zones to the Whinham-1 well only during VSP activities, despite the similarity in predicted received sound levels and presence of cetaceans at the Stromlo-1 location; 3. Detail the control measures for mitigating behavioural responses in cetaceans from exposure to continuous noise up to 40 km from the MODU are acceptable and ALARP. The response must consider that the activity could occur for up to 150-days (each well) in a biologically important area for cetacean breeding, calving, feeding, resting and migration;	

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			4. Detail the monitoring and validation proposed in the sound management study that will continuously manage impacts and risks to ALARP. The response must provide a suitable level of detail outlining the objectives of the program, and how outcomes will adaptively manage impacts and risks during the drilling activity; and 5. Detail the monitoring and validation proposed in the sound management study that will continuously manage impacts and risks to ALARP. The response must provide a suitable level of detail outlining the objectives of the program, and how outcomes will adaptively manage impacts and risks during the drilling activity.	
21	Section 6.5	13(7)a	<u>Environmental Performance Standards</u> Please provide appropriate environmental performance standards (EPS) for the control measures identified to mitigate potential impacts from underwater noise emissions (Page 302). Additional EPS may include (though are not limited to) temporal or spatial control measures, additional EPBC Act Policy Statement 2.1 - Part B measures, marine fauna observer qualifications and the maximum VSP acoustic source output, and any new controls to be implemented following items noted in this information request.	
22	Section 6.5	13(7)c	<u>Measurement Criteria</u> Please provide appropriate measurement criteria (MC) for the EPO and EPS identified to mitigate potential impacts from underwater noise emissions (Page 307). Additional MC may include (though are not limited to) training and competency of marine fauna observers, and any new controls to be implemented following items noted in this information request.	
Protected Matters - Planned Discharges – Drilling Cuttings, Mud, Chemical Additives and Cement				
<i>The evaluation of environmental impacts and risks for the planned discharge of drill cuttings, mud and chemical additives has been outlined in Section 6.8 of the EP (Page 318). Further information is required to demonstrate that the extent of potential impacts (i.e. area contacted in the receiving environment), severity of environmental impacts (i.e. ecological receptors and biological effects), and selection of control measures (e.g. items of equipment, procedures or personnel to mitigate potential impacts) associated with the planned discharge of drill cuttings, mud and chemical additives are acceptable and ALARP.</i> <i>Aspects of the EP for which further information is requested include:</i> <i>Extent of benthic deposition</i> <i>Extent of water column plume</i> <i>Severity of environmental impacts</i> <i>Control measures to mitigate impacts</i> <i>Environmental performance standards</i> <i>Environmental performance outcomes</i> <i>Measurement criteria</i> <i>These are detailed below.</i>				

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23	Section 6.8 and 6.9	13(5)	<u>Extent of Benthic Deposition:</u> The extent of particulate deposition (including drill cuttings, mud and chemical additives) predicted to occur at the seabed following the planned discharge is presented in the 'GAB Exploration Project – Dispersion modelling of drilling discharges' report (BP, 2013). Given the extent of predicted seabed deposition area will inform the assessment of potential environmental impact(s), the maximum area of disturbance must be identified. • Please provide the rationale for why the modelled (i) well locations and (ii) base case well design parameters are representative of the proposed Stromlo-1 and Whinham-1 wells described in the EP; and, • Please confirm the full extent of seabed deposition expected at the Stromlo-1 and Whinham-1 well locations (for the individual and combined well area), noting that >50% of discharged mud and cuttings released in the model was transported outside the boundaries of the near-field model grid.	
24	Section 6.8 and 6.9	13(5)	<u>Extent of Water Column Plume:</u> The predicted extent of suspended particulates in the water column following the multiple-batch discharge of drill cuttings, mud and chemical additives at the surface is outlined in Section 6.8.3 and Figure 6-8. While the 17 ½" well section has been identified as the largest volume of drill cuttings to be discharged, the contribution of other well sections to the water column plume has not been presented in the evaluation. Given the plume area will inform the extent of potential impact(s), the maximum area of disturbance must be identified. Please provide additional information to demonstrate the extent of the water column plume has been adequately represented, including details which: • Demonstrate the modelled (i) well locations and (ii) base case well design parameters are representative of the proposed Stromlo-1 and Whinham-1 wells described in the EP; • Confirm drilling mud and chemical additives (in addition to drill cuttings) have been included in the discharge composition modelled; and • Identify the potential extent of water column plumes generated by the batch discharge of drill cuttings, mud and chemical additives.	
25	Section 6.8 and 6.9	13(5)	<u>Severity of Environmental Impacts:</u> Based on the extent of area which may be affected following the planned discharge of drill cuttings, mud, chemical additives and cement (i.e. benthic deposition and water column plume); the severity of environmental impacts from turbidity, smothering, toxicity and oxygen depletion have been identified for the evaluation of consequences to some relevant values and sensitivities in the receiving environment (Page 319 and 336). Further information is required to place the features of the environment (i.e. relevant protected matters, values and sensitivities) into the context of the environmental impacts identified to ensure all impacts and risks have been evaluated.	

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			Please provide additional details which: - Identify the presence of all protected matters, values and sensitivities (e.g. mammals, reptiles, birds and other invertebrates such as the deep sea crab), and benthic habitats (e.g. Murray's Mount and Anna's Pimple) within the extent of benthic deposition and water column plume; and, - Evaluate the severity of all identified impacts (i.e. potential biological effects resulting from turbidity, smothering, toxicity and oxygen depletion) to the values and sensitivities within the benthic deposition and water column plume area. In providing further information to address the severity of environmental impacts, please consider: - The threshold value used to evaluate impacts to marine invertebrates from turbidity (i.e. 100 mg/L total suspended solids) is under-protective by comparison with the ANZECC/ARMCANZ (2000) water quality guidelines for the protection of marine fish, molluscs and crustaceans; - Potential additive effects to receptors from repeat exposure to suspended particles in the water column plume (i.e. multiple batch discharges); - Information to describe the persistence, bioaccumulation and toxicity of drilling mud (water and synthetic based muds), fluids other chemical additives and cement; - The relevance of literature describing the recovery and recolonisation of cuttings piles in cold-water marine environments following the discharge of synthetic based mud (Jones et al., 2012) to the proposed Stromlo-1 and Whinham-1 drilling activity (Page 324).	
26	Section 6.8 and 6.9	13(5)	<u>Control Measures to Mitigate Impacts:</u> Based on the evaluation of extent and severity associated with the discharge of drill cuttings, mud and chemical additives, the EP has considered a range of control measures for mitigating potential impacts (Page 326 and 338). Further information is required to ensure relevant control measures have been identified and demonstrated to manage potential impacts to levels which are acceptable and ALARP. Please provide additional information which: - Details of all control measures that will be used to mitigate impacts from planned discharges of drilling mud and chemical additives that have been considered in the ALARP justification, including (though are not limited to) temporal or spatial control measures, maximum levels of priority contaminants in drilling additives, end-of-pipe chemical characterisation and/or toxicity testing; - Demonstrate that the toxicity and persistence associated with particulate retained-oil-on-cuttings (ROC of 6.9% wet-weight) and dissolved fluids (<1% by volume) to be discharged is acceptable over the extent of particulate deposition and water column plume; - Justify why the ROC limit has been based on 'wet-weight' given the referenced Department of Mines and Petroleum guidance is based on 'dry-weight'; - Clarify the chemical selection criteria for drilling mud, fluids and chemical additives (Table 2-4), including:	

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			- How the 'equivalency' of CHARM and non-CHARM chemicals will be determined; - Confirmation that chemicals listed on REACH Annex IV and V will not be exempt from a hazard assessment under OCNS; - An explanation of key requirements and criteria associated with any reference to an 'approved justification'; - The relevance of 'substitution warning' references in the selection of Category 2 chemicals; and - Clarity of all selection criteria outlined in Category 3. Provide details of the monitoring and validation proposed in the drilling cuttings management program (Page 334) and cementing management program (Page 340) to show that it will continuously manage impacts and risks to ALARP. The response must provide a suitable level of detail outlining the objectives of the program, and how outcomes will adaptively manage impacts and risks during the drilling activity.	
27	Section 6.8 and 6.9	13(7)a	<u>Environmental performance standards</u> Please provide appropriate environmental performance standards (EPS) for the control measures identified to mitigate potential impacts from the discharge of drill cuttings and cement (Page 326 and 338). Additional EPS may include (though are not limited to), preventative maintenance and calibration of critical equipment, frequency of ROC measurements, training and competency, quantification of discharge volumes, chemical characterisation and toxicity testing for composite drilling discharges, valve closure checklist, and maximum levels for contaminants-of-concern present in drilling muds and chemical additives, and any new controls to be implemented following items noted in this information request.	
28	Section 6.8 and 6.9	13(7)b	<u>Environmental performance outcomes</u> For the planned discharge of drilling cuttings and cement, please include suitable environmental performance outcomes (EPO) which provide a measurable level of performance to ensure impacts and risks will be of an acceptable level. For example, the EPO for the discharge of cuttings and cement currently refers to the implementation of controls, opposed to achieving an acceptable level of impact (Page 334 and 340).	
29	Section 6.8 and 6.9	13(7)c	<u>Measurement criteria</u> Please provide appropriate measurement criteria (MC) for the EPO and EPS identified to mitigate potential impacts from the discharge of cuttings and cement (Page 334 and 340). Additional MC may include (though are not limited to) end of well and daily reports, training records, contractor maintenance systems, and any new controls to be implemented following items noted in this information request.	
Emissions and Discharges (Unplanned) – Oil spill scenario				

Item	Section of Submission	Environment Regulation	Further written information requested	Response from Titleholder
30	OPEP Section 3.9.2	13(5)(6)	<u>Oil spill scenario – emulsification of oil</u> Please provide further information in response to the following: • Could BP please provide more information on the expected emulsification of the Stromlo oil ? • Please clarify whether the modelled volume of shoreline accumulations (e.g. OPEP p 92) take emulsification into account or are the oil volumes presented the pure oil content of oil strandings? If emulsification is not taken into account, please justify that the approach is appropriate to the nature and scale of the impacts.	
31	EP Section 8 OPEP Section 3 and 5	13(5a,c)	<u>Oil spill scenario – equipment selection</u> Please provide further information in response to the following: • Please provide information on the choice of skimmers, pumps, hoses, storage tanks, and other types of oil spill response equipment mentioned in the plan to demonstrate that they have been selected specifically with the physical/behavioural characteristics and significantly-multiplied volumes of emulsified oil in mind?	
32	EP Section 7.8.4	13(5)(6)	<u>Modelling</u> Please provide further information in response to the following: • Could BP provide more information to justify how the chosen deterministic modelling is representative of the suite of stochastic runs modelled? • Is the “single spill trajectory” illustrated in Figure 7-8 to 7-10 (EP 409-410) the deterministic run used for response planning purposes?	
33	EP Section 7.8.4 and 8.3 OPEP Section 3.9.2	13(5)(6)	<u>Modelling</u> In addition to the all-seasons presentation of modelling output charts for Stromlo-1 (p. 405-408) and the seasonal shoreline loadings described in the OPEP (p 92). Please provide further information in response to the following: • Could BP please provide details of the modelling outputs that show both the seasonal and spatial dimensions for Stromlo-1, in particular surface slicks and shoreline accumulations. This will enable a better understanding and assessment of the seasonal implications for response planning (EP, p 404, 484)	
34	EP Section 7.8.4 and 8.3	13(5)(6)	<u>Modelling</u> Please provide further information in response to the following: • Using its spatial and seasonal modelling outputs could BP please identify key seasonal vulnerabilities of identified sensitive priority receptors with oil spill response implications? (EP, p 404, 484)	

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35	EP Section 7.7 and 7.8	13(5)(6)	<u>Evaluation of impacts and risks identified by modelling</u> Please provide further information in response to the following: • Could BP please provide further, more contemporary, reasoned and supported information to back up their impact evaluation in the EP "receptor assessment" (p 416-445). In particular consider population effects/ impacts to turtles p 390, fish p 391, pinnipeds p. 392, cetaceans p 393 & 434, fishing activity p 439, 441-443.	
36	EP Section 8.16	13(5)(6)	<u>Modelling</u> Please provide further information in response to the following: • Could BP please explain how the AMBAs change when SSDI is applied? (i.e. Figures 8-5 and 8-6 do not show surface slicks or shoreline accumulations, for example, from oils released before SSDI begins). • Please provide appropriate spatial charts of areas affected with and without successful SSDI (including shoreline accumulations).	
37	EP Section 5.1	13(6b)	<u>Impact and risk evaluation process</u> Please provide further information in response to the following: • Could BP please provide details on how hazards and risks for unplanned events (in particular with regard to WCD) were identified as being appropriate to this activity? (i.e. provide a more detailed description of the ENVIID process, p 256)	
Emissions and Discharges (Unplanned) – Arrangements for oil spill response				
38	EP Section 8.6.4 OPEP Section 3 and 5	13(5c)	<u>Aerial capability and arrangements</u> The EP states that "AMSA FWADC aircraft are maintained in strategic locations to respond to oil spills on a 24/7 basis and can operate up to 200 nautical miles from the coast." (p 510). There are insufficient details of the control measure that will be used. Please provide further information in response to the following: 1. Can BP please explain in more detail the operational capability of the AMSA FWADC air tractors "up to 200 nautical miles from the coast"? In other words, does this mean that they can fly out and back to a location 200 nautical miles from the coast (i.e. return A-B) or does this mean that they can mount an effective spray operation at locations up to 200 nautical miles from the coast? How much effective spray time could, for example, be expected at a location 200 nautical miles from the coast? 2. Based on the modelling, where does BP expect that these aircraft will have to operate? Can BP please provide charts that show the potential spatial combat areas for the air tractors relative to their operations base(s) and safe	

Item	Section of Submission	Environment Regulation	Further written information requested	Response from Titleholder
			operational distances from those bases. 3. How is this single-engine-over-water capability documented such that they can operate to the required distances offshore? 4. Have aviation authorities and 3rd party service providers been consulted on the scenario and the proposed operational area and safety mitigation measures proposed for small dispersant aircraft? 5. Could BP please provide more detail on the applicable safety constraints for effectively operating single-engine aircraft far offshore to better understand the feasibility of the proposed use of these aircraft for the WDC scenario? 6. Considering the nature of aerial dispersant spraying (i.e. flight plans are typically not A-B), how far offshore (maximum) does BP anticipate utilising the small dispersant aircraft?	
39	EP Section 8.3 OPEP Section 3 and 5	14(8AA)	<u>Marine capability and arrangements – Vessels of opportunity</u> Please provide further information in response to the following: 1. Could BP please provide further information on their progress in pre-arranging offshore-capable (VoO) vessels suitable for both (1) offshore and (2) near-shore Containment and Recovery" operations? 2. How many offshore class vessels have been signed up to date? 3. How many potentially suitable vessels are known to be based in the region? 4. Has consultation begun with the vessel owners/ operators that have not yet signed up? 5. Can BP demonstrate that sufficient vessels of opportunity will be available to carry out effective operations as described in the EP (e.g. with "Enhanced Recovery and Containment Strike Teams")?	
40	EP Section 8.3 OPEP Section 3	13(6); 14(8AA)	<u>Oiled wildlife capability and arrangements</u> Please provide further information in response to the following: - When will the IGOWRP be complete? Please describe the status of the IGOWRP and how the plan will be completed in an appropriate time frame for timely response. - Will it be complete before operations are to begin?	

Item	Section of Submission	Environment Regulation	Further written information requested	Response from Titleholder
41	OPEP Section 3	14(8AA)	- Describe how State and other relevant parties (e.g. 3rd party service providers) have been consulted in the drafting of the IGOWRP. <u>Oil spill aerial surveillance</u> Please provide further information in response to the following: - Could BP please explain how three fixed wing aircraft on rota for twice daily overflights (OPEP p 44) will have sufficient range for surveillance of the areas that modelling indicates may require overflights?	
Emissions and Discharges (Unplanned) – Source control measures				
42	EP Section 8.6.2	13(5c)	<u>Source control operational constraints</u> Please provide further, more specific information in response to the following: - The weather allowances made with regard to the mobilisation and implementation of source control measures (in particular capping stack equipment and relief well rig)? - Justification for the 3 day waiting on weather (WOW) allowance for mobilisation (e.g. p 504)? - Options for having a dedicated capping-stack-installation-capable vessel on standby in Australia during drilling. Information on optimal standby location(s) for such a vessel, considering the probable landing/ staging location(s) for capping stacks. - The option(s) for staging a capping stack in country, in particular the technical solutions that would have to be found to locally-stage either an adapted existing capping stack or an entirely new capping stack. - The time allowances built in to the ranging phase 3 ranging of the relief well drilling operation (p 506)? - The use and determination of P90 values in the EP. - The expected effectiveness of “standard MODU’s” (EP p 503) for relief well drilling when a “harsh environment semi-submersible” has been sourced for drilling of the original well? - How will bad weather allowances make up for the fact that the MODU may not be able to operate at all in extended periods of poor weather?	
43	EP Section	13(5c)	<u>Source control seasonal constraints</u>	

Item	Section of Submission	Environment Regulation	Further written information requested	Response from Titleholder
	8.6		No mention is made of the specific seasonality of a source control operation. Please provide further information in response to the following: - Is there a good weather window of opportunity for drilling? - When is it and how do the key risk periods during drilling line up with these windows? - What are the timing implications for drilling a relief well with the particular relief well rigs proposed (i.e. generally non heavy-weather rigs)?	
44	EP Section 8 OPEP Section 3 and 5	13(5c)	<u>Subsea dispersant delivery system</u> Please provide further information in response to the following: - Could BP please describe the time line for getting the Houston-based equipment to site and what arrangements have been/ will be made in advance to minimise the mobilisation time/ risk? - What are the costs for alternative provisioning of this equipment (e.g. local stocking or alternative sources)?	
45	EP Section 8.6	13(5c)	<u>Source control options</u> The EP describes expected benefits from each additional air tractor day of operations in terms of treated oil (p 509). Please provide further information in response to the following: Could BP please describe the cost implications of having arrangements for more air tractors (or other suitable aircraft) arrive sooner to site in the case of an incident? (p 509)	
46	EP Section 8.6	13(5c)	<u>Source control options</u> Please provide further information in response to the following: - Could BP please list and describe global providers that in theory could provide suitable dispersant-capable large airframes for local standby during drilling operations? - Could BP please explain which other potential suppliers of large airframes suitable for the proposed dispersant operations have been contacted for availability and cost quotations? (p 511)	
47	EP Section 8.6 OPEP Section 3 and 5	13(5c)	<u>Source control vessel arrangements</u> Please provide further information in response to the following: - What specific arrangements have been made with the tuna fleet (EP p 511) or other relevant, potential suppliers of vessels to secure their availability for the VoO fleet capable of spraying dispersants, in particular in the first 10 days of an incident? - What pre-spud outfitting/ training would be required/ has been planned for such vessels/ crews?	

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Emissions and Discharges (Unplanned) – Containment and recovery				
48	EP Section 8.3 and 8.6	13(5c)	<u>Containment and recovery operations</u> Please provide further information in response to the following: - Could BP explain how the containment and recovery (C&R) strike teams will be able to "provide some benefit in areas away from the surface dispersant application zone, before SSDI operations begin" (EP p 486) if SSDI is to be on line by around Day 10 (p 508) and C&R is to be implemented by Day 11 (EP p 488)? - Could BP please evaluate in more detail the options (benefits and costs) of having C&R strike teams operating on site earlier? - Could BP please offer more detailed information on the availability/ costs/ suitability of alternative vessel standby arrangements and include this information in its ALARP demonstration (p 511) - Could BP provide a more detailed evaluation of the suitability and availability of the mentioned Tuna Fleet specifically for C&R operations. - What pre-spud outfitting/ training would be required/ has been planned for such vessels/ crews? - Could BP please explain why two containment and recovery (C&R) strike teams (EP p 487) is the most appropriate number and not three teams or some other number? (EP p 487).	
Emissions and Discharges (Unplanned) - In-Situ Burning				
49	EP Section 8.3 and 8.6	13(5c/6)	<u>In-Situ Burning</u> The potential and (considerable) limitations for in-situ burning (ISB) are outlined in the EP. Given BP has not ruled out ISB entirely (principally on weather grounds) (EP p 487) could BP please describe: - What further pre-spud preparedness actions could be undertaken to improve the timeliness and effectiveness of ISB provision should weather conditions prove amenable at the time of an incident? - What triggers will be used to begin ISB mobilisation, given the delivery time lag for equipment?	
Emissions and Discharges (Unplanned) – Shoreline strategies				
50	EP Section 8.3 and 8.7	13(5c/6)	<u>Shoreline protection</u> Could BP please provide further information on:	

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51	EP Section 8.3 and 8.7	13(5c/6)	<u>Shoreline clean-up</u> Could BP please provide further information on: - the capability required to manage shoreline protection needs commensurate with the worst case deterministic model run; and - the relative costs and benefits of alternative types/ levels/ timeliness of provision?	
			Could BP please provide further information on: - the capability required to manage shoreline clean-up needs commensurate with the worst case deterministic model run; - the relative costs and benefits of alternative types/ levels/ timeliness of provision; - the basis for the assumption that 3,400km of shoreline can be cleaned in 4 weeks (EP p493); and - the readiness of Tactical Response Plans (TRPs).	
Emissions and Discharges (Unplanned) – Oiled wildlife				
52	EP Section 8.3 and 8.7	13(5c/6)	<u>Oiled wildlife</u> Could BP please provide further information on: - how the proposed capability to manage oiled wildlife response needs is commensurate with the worst case deterministic model run; and - the relative costs and benefits alternative types/ levels/ timeliness of provision?	
Emissions and Discharges (Unplanned) – Impacts of oil spill response activities				
53	EP Section 8 OPEP Section 3	13(5c/6)	<u>Impacts and risks from spill response activities</u> Could BP provide more detailed information on the controls to be implemented to manage impacts and risks from oil spill response strategies, including but not limited to: - avoiding ground disturbance during shoreline clean-up; - the spraying of dispersant in shallow/ sensitive waters, near aquaculture facilities, or on/ near shorelines; - the implications of using non-OSCA dispersants (e.g. 9500A, OPEP p 54); and - the implications for aquatic life if such large quantities of SSD are used.	
Emissions and Discharges (Unplanned) – Incident Management Systems				
54	EP Section 8 OPEP Section 3	13(5c/6)	Could BP please provide further information to describe: 'How' the NEBA and IAP processes will be undertaken; and - What controls are in place to minimise secondary impact from the OSR controls; and	

Item	Section of Submission	Environment Regulation	Further written information requested	Response from Titleholder
Emissions and Discharges (Unplanned) – Environmental Performance Standards				
55	OPEP	13(7a)(c)	<u>Environmental performance standards</u> There are numerous environmental performance standards provided in the OPEP and EP, many of which are categorised as relating to 'preparedness' or 'response'. It is noted that a great number of these relate to contractual access to and the mobilisation (and demobilisation) timeframes of oil spill response resources. Please provide measurable statements of operational performance required when implementing each oil spill response control.	
Emissions and Discharges (Unplanned) – Implementation Strategy				
56	EP Section 9.9 OPEP	14(8)	<u>Provisions for maintaining currency of OPEP</u> Please provide further information in response to the following: Could BP provide information on their regular review and updating of the OPEP and its support documents, in particular the TRPs?	
57	EP/OPEP	14(8B)(b) 14(8B)(c) 14(8B)(d)	<u>Testing response arrangements</u> Please provide further detail as required by Reg 14(8B)(b), (c) and (d), specifically regarding the timing testing (relative to spud date) and the feedback mechanisms for addressing recommendations.	
58	OPEP p128	14(8AA)	<u>Arrangements in place</u> Please provide further information in response to the following: - Will the VoO programme including vessel register be in place prior to spud? - Can BP provide information to demonstrate now, before that register is complete that there is a sufficient pool of local vessels of the appropriate sea-going class to man the at-sea operations it has proposed in the OPEP?	
59	OPEP p128	14(8AA) 13(7a)	<u>Clarification of EPS</u> The OPEP identifies a 'preparedness performance standard' for the Vessels of Opportunity (VoO) programme which states that for the control measure, VoO Development, a performance standards is: 'Maintenance of best endeavours access to suitable numbers of suitable (surveyed) vessels'. [OPEP p128].	

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			It is not clear what this statement means. • Please clarify what specific level of performance this performance standard is to achieve. • In providing this information, please refer to the definition of an Environmental Performance Standard (EPS) and to section 3.6 of the NOPSEMA Guidance on EP content requirements for EPS's.	
Socio-Economic – Consultation with tourism operators				
60	S4.6.8	14(9)	<u>Consultation with tourism operators</u> The EP in section 4.6.8 describes tourism activities in coastal areas within the AMBA including marine mammal watching and shark cage diving. However Table 3.1 (EP, page 71), as well as Annex D, has only listed charter boat fisheries and Fowlers Bay Eco Tours as having been included in consultation to date with a note in Table 3-2 (EP, page 73) that coastal tourism stakeholders will only be contacted in the event of an actual spill event that may impact on these stakeholders. Information has been provided, however, that suggests that tourism issues have been raised in consultation. For example Document 1.6 [Annex E, 'Summary of themes raised in consultation'] notes that some stakeholders raised the possibility of a possible negative impact on "the 'clean green' brand of South Australian seafood or tourism opportunities". Further, a document that the TH made available to stakeholders, Document 1.7 [Annex E, 'Environment Plan Consultation'], states on page 6, that BP have "spoken to" tourism operators. • Please provide further information to demonstrate that consultation with tourism operators meets the requirements of the regulations, that tourism operators whose activities are within the AMBA, and that may be impacted in the event of an actual spill event, have had the opportunity to be included in consultation • In addressing this request, consideration must be given to providing further details as required by Regulation 16(b).	
General – Implementation Strategy				
61	EP s7.6	13(5,6)	<u>Unplanned riser disconnect Drilling mud discharge</u> The risk of unplanned riser disconnect is evaluated in section 7.6 and is stated to result in a discharge of drilling muds including SBM, with potential environmental impacts stated as the smothering of benthic substrate and acute toxicity to marine fauna from a reduction in water quality due to release of up to 368m3 of SBM [p384]. The consequence evaluation states that the potential impacts of smothering are considered "moderate degradation of the environment, reversible over the long-term" [p384]. However the acceptability statement for the same section then states that there would be "undetected or limited local degradation of the environment, rapidly returning to original state by natural action. Would not be expected to affect biological diversity or ecological integrity" [p386]. These statements appear contradictory and therefore the acceptability statement does not reflect the nature and scale of risk of the activity. • Please provide a consistent description of the evaluation of potential impacts from an unplanned riser disconnect event.	

Item	Section of Submission	Environment Regulation	Further written information requested	Response from Titleholder
62	EP Sections 6 to 8	13(7b)	<u>Environmental Performance Outcomes</u> There are a number of environmental performance outcomes (EPOs) which do not set a measurable level of environmental performance as required by the Regulations, and are not consistent with core concepts and considerations detailed in the NOPSEMA Guidance Note on Environment Plan content requirements. Examples include EPO's that are: - Procedural statements - E.g. EPO7 states 'lighting will be limited to that required for safe work and navigation' - which does not set out an environmental outcome against which the performance of the titleholder in protecting the environment can be measured. - Not reflecting an acceptable level of impact, by aiming to minimise impacts through the implementation of controls - E.g. EPO10 [on page 340] sets an outcome of 'minimising' environmental impacts associated with toxicity, smothering and turbidity from cement discharges and does not prohibit them from occurring in the first place; E.g. EPO11 - all cooling and brine water discharges are 'within specified operating parameters' - yet the parameters are not defined. - Ambiguous statements limiting EPO to apply only when planned E.g. - EPO15, EPO16, EPO17 which relate to 'no unplanned releases'. Please review all EPO's within the submission to ensure they are consistent with core concepts and considerations detailed in the NOPSEMA Guidance Note on Environment Plan content requirements.	
63	EP p555	14(3)	<u>Evaluation of the effectiveness of control measures</u> The EP states [p555] that a BP/Diamond gap analysis has been conducted to compare BP's OMS requirements to Diamond's GEMS and a bridging matrix developed [AU000-HS-MAT-600-00001]. This measure is to be applied during the campaign and would be used to monitor and measure compliance with the EPS outlined in the EP. This measure indicates a method to align practices and processes on commencement of the activity, however there is insufficient information on the process that will be used to resolve any conflicts between the systems during the conduct of the activity. Please describe the system or process that BP and Diamond Offshore will implement for assessment the effectiveness of control measures for this activity on an ongoing basis (ie during the activity), and how conflicts between the two companies systems will be resolved.	
64	EP s9.9.2	14(3)	<u>Measures for continuing to reduce impacts and risks to ALARP and acceptable levels</u> The EP recognises [S9.9.2] that new information may become available through the GAB Research Program; stakeholder input; monitoring studies; management plans; audit, inspections and investigations [section 9.9.2, p583-584]. Yet while the EP acknowledges new information may arise, there is insufficient information provided in the Section 9.9.2 of the	

Item	Section of Submission	Environment Regulation	Further written information requested	Response from Titleholder
			submission relating to what BP will do during the conduct of this activity in response to this new information, other than 'revise the EP accordingly'. Please provide further information regarding how BP proposes to manage and respond to new information from the above sources throughout the conduct of the activity.	
65	EP p583	14(3)	<u>Management of Change process</u> The EP states that the Management of Change (MoC) process is completed before being assessed against the EP by the Environment Manager/HSE Manager [p583] to ensure impacts and risks are ALARP and acceptable. This implies that a separate approval and authorisation process for the assessment of new or changed impacts or risks could occur after the MoC has been reviewed, approved and authorised and potentially implemented. This statement on page 583 is contradicted with an earlier paragraph on the same page which states that the potential impacts arising from the change or deviation shall be risk assessed and reviewed prior to the change or deviation being 'approved' in the final step of the MoC process. Please clarify how the MoC process will be applied, noting the above inconsistencies.	
66	EP s9.8.3	14(6)	<u>Sufficiency of audits</u> The 'compliance audits' and 'regular reviews and audits' are not sufficiently described in the submission. It is not clear that the frequency and scope of these auditing activities will be adequate to ensure that EPOS and EPSs are being met in timeframes which allow timely and meaningful corrective actions to be identified, actioned and closed out. In particular, please provide further information to describe: - The framework and typical scope of the EP compliance audits for the MODU and support vessels listed in Section 9.8.3; and - The scope and frequency of the regular review and audit of specific aspects of EP compliance by the onboard SDR in conjunction with the BP Environment Manager.	
67	EP p572	14(6)	<u>Management of non-conformances</u> In relation to management of non-conformances at the MODU, the EP defers to Diamond managing their response as outlined in their Safety Case [EP p572], yet there is no further information supplied in the EP submission regarding how these processes will address management of non-conformances to ensure EPOs and EPSs will continue to be met for the duration of the activity. Please describe how both BP and Diamond Offshore processes will address the management of non-conformances, and detail how these systems, practices and procedures will ensure that EPO's and EPS's will continue to be met.	

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68	EP s9.8.5	14(8AA)	<u>Actions in response to readiness reviews - OSMP</u> The EP states that an OSMP desktop readiness assessment will be undertaken <u>prior to spudding the first well</u> to confirm that the resources, companies/organisations, their personnel and equipment nominated in the OSMP still have the required capacity and capability to respond as described in the OSMP. While the OSMP readiness review is noted, and the commitment to complete the readiness review prior to drilling is incorporated as the first EPS for each operational and scientific monitoring study [App A and B of the OSMP], there is insufficient information regarding how the personnel and equipment will be prioritised for the OSMP as the monitoring implementation plan and sampling and analysis plans have not yet been developed. Further, the EP submission does not specify what processes will be in place to action any deficiencies identified during the OSMP readiness review such that arrangements are sufficient prior to spudding the well. • Please provide further information regarding the actions that will be taken in response to the pre-spud OSMP readiness review; and • Describe in particular, the systems, practices and procedures that will apply if OSMP preparedness measures are identified as incomplete at the pre-spud audit/readiness review.	
69	EP s9.8.5	14(8AA)	<u>Scope and actions in response to readiness review - OPEP</u> The EP states that an OPEP desktop readiness assessment will be undertaken 'prior to spud to ensure readiness for operations' [EP p581]. There is insufficient information regarding what processes will be in place to action any deficiencies identified during the OPEP readiness review such that arrangements are sufficient prior to spudding the well. • Please provide further information regarding the actions that will be taken in response to the pre-spud OPEP readiness review; and • Describe in particular, the systems, practices and procedures that will apply if preparedness measures are identified as incomplete at the pre-spud audit/readiness review.	
70	EP s9.7	14(7)	<u>Emissions and discharges monitoring:</u> The monitoring to be conducted in association with activity hazards are summarised in Table 9-8 and these reflect the monitoring and record keeping requirements identified in risk evaluation sections and tables throughout Section 6 to 7 of the EP, with the exception of two items. There are two monitoring requirements that have not been included in Table 9-8: • Discharge of drill cuttings and fluids - Fluid system and Solids Control Equipment - p334 • Discharge of cement - Confirmation of seabed disturbance from cementing program - p341 Please describe the monitoring and record keeping relating to drill cutting/fluid discharges and cement discharges in Table 9-8.	

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71	OPEP s3.13 OPEP s5.14	14(8AA)	<u>Monitoring effectiveness of controls and ensuring EPS are met</u> The EP states that lower level desktop exercises will be scheduled throughout the drilling program to ensure that 'plans remain current' and that skills are maintained [EP s9.8.4, p581]. It is not clear which 'plans' this statement refers to. • Please clarify which plans have been developed and are to be maintained for the duration of the activity as described in the EP. • In providing this list, please set out what process has been developed for monitoring the effectiveness of these plans for the duration of the activity.	
72	EP s9.6.2	16(c)	<u>Reportable incidents:</u> The submission presents contradictory information regarding which environmental incidents are deemed 'reportable'. Reportable incidents relating to the environment are described in Section 9.6.2 and Table 9-7, which identify several broad types of environmental reportable incidents. Table 9-7 states that reportable incidents are defined in accordance with the BP consequence severity matrix as category A/B, C/D and E/F for incidents (unplanned) and considers the following are considered reportable incidents: • Unplanned riser disconnect; • Vessel collision resulting in a diesel release; and • Well blowout. However there are further aspects of the planned activity that present risks of consequence 'E/F' that are not identified as a reportable incident. These include incidents associated with: • the introduction of marine pests; • underwater sound; • atmospheric emissions; • planned discharge of drill cutting and fluids; and • planned discharges of cement. Please provide further supporting information regarding why these incidents are /are not considered reportable incidents that are to be reported to NOPSEMA.	