



**Australian Government**

**Department of the Environment, Water, Heritage and the Arts**

## **Supplementary submission to the Commission of Inquiry**

This submission was prepared in response to the Montara Commission of Inquiry's (Inquiry) request for a further written submission addressing issues specified in the schedule of a letter dated 16 February 2010 to the Department of the Environment, Water, Heritage and the Arts (DEWHA). This submission should be read in conjunction with DEWHA's first submission.

**Part A** contains DEWHA's response to issues, relating to the exercise of approval and other legislative powers under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) relating to the Montara Oil Field Development, specified in item 'A' of the schedule to the Inquiry's letter to DEWHA.

**Part B** contains DEWHA's response to issues, relating to the response to the uncontrolled release of hydrocarbons from the Montara Wellhead Platform on 21 August 2009 (Uncontrolled Release), specified in item 'B' of the schedule to the Inquiry's letter to DEWHA.

**Part C** contains DEWHA's response to issues, relating to environmental monitoring and impacts, specified in item 'C' of the schedule to the Inquiry's letter to DEWHA.

**Part D** attaches copies of relevant documentation that DEWHA has referred to in this submission.

*NB: It is emphasised that this is the submission of DEWHA. It does not necessarily reflect the views of the Australian Government, the Minister for the Environment, Heritage and the Arts or any other agency or person.*

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## Part A – EPBC Act and Montara Oil Field Development

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**The exercise of approval and other legislative powers under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) relating to the Montara Oil Field Development (reference number 2002/755) including:**

- 1. What, if any, analysis DEWHA has undertaken to determine whether the Uncontrolled Release has resulted in a ‘significant impact’ to the environment of the Commonwealth marine area?**

- 1.1 DEWHA understands and applies the term ‘significant impact’ in the statutory context of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Under Part 3 of the EPBC Act, it is an offence to take an action which has, will have, or is likely to have a significant impact on a matter protected without approval (see, for example sections 23 and 24A). These actions are called controlled actions (see section 67). Section 75 of the EPBC Act allows the Minister for the Environment, Heritage and the Arts (the Minister) to make a binding decision in relation to whether a particular action is a controlled action. If the Minister determines that an action is a controlled action it must be assessed and approved under Parts 8 and 9 of the EPBC Act. The Minister can approve actions that may or will have a significant impact. Once approved the action can be taken without breaching Part 3, even where it may have a significant impact. For example subsection 24A(8) provides that the offence provisions in subsections 24A (1), (2), (3), (4), (5) and (6) do not apply to an action if a person has an approval for the taking of the action.
- 1.2 As the Montara Oil Field Development had an approval under the EPBC Act, the offences in Part 3 of the EPBC Act do not apply even if the action does have a significant impact.
- 1.3 Given that there was an approval in place in this instance, the analysis undertaken by DEWHA to ascertain whether there had been a contravention of the EPBC Act was:
  - a. was the action taken by PTTEPAA the same as that approved in EPBC 2002/755; or
  - b. was there any breach of the conditions of approval EPBC 2002/755.

In relation to (a) DEWHA, based on its current understanding of the facts, does not believe that the action taken differed from that which had been approved.

In relation to (b) DEWHA, based on its current understanding of the facts, does not believe that any breach of conditions occurred which was material to the Uncontrolled Release or to the response. DEWHA's

first submission to the Inquiry outlines non-compliance of a largely technical nature with the conditions related to the timing of the annual provision of a compliance certificate. DEWHA's first submission also draws attention to ambiguity in the wording of the condition related to the Oil Spill Contingency Plan.

- 1.4 While it would not constitute an offence in itself for an approved action to have a new significant impact not contemplated at the time of the approval, or to have an impact substantially greater than the impact that was identified in assessing the action, the Minister would be able to vary the conditions attached to the approval or suspend or revoke the approval (see subsections 143(b) and (ba), 144(2) and 145(1) and (2)). In relation to the Montara Oil Field, an oil spill of comparable impact was contemplated through the environmental assessment (although regarded as highly unlikely).
- 1.5 As noted in DEWHA's first submission (paragraphs 1.92-1.97), DEWHA is currently conducting an audit of PTTEPAA's compliance with the conditions and the EPBC Act more generally. DEWHA notes the Inquiry may produce findings regarding compliance.

**The exercise of approval and other legislative powers under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) relating to the Montara Oil Field Development (reference number 2002/755) including:**

- 2. Does DEWHA consider that the 'significant impact criteria' for the environment of the Commonwealth marine area as currently drafted is adequate for undertaking any analysis referred to in (1) above?**

- 1.6 The main purpose of the Significant Impact Guidelines (<http://www.environment.gov.au/epbc/publications/nes-guidelines.html>) is to assist any person who proposes to take an action to decide whether or not they should submit a referral to DEWHA for a decision by the Australian Government Environment Minister (the minister) on whether assessment and approval is required under the EPBC Act. Under the EPBC Act an action will require approval from the minister if the action has, will have, or is likely to have, a significant impact on a matter of national environmental significance (NES). These guidelines outline a 'self-assessment' process, including detailed criteria, to assist persons in deciding whether or not referral may be required. These guidelines may also assist members of the public or interest groups who wish to comment on actions which have been referred under the EPBC Act.
- 1.7 A 'significant impact' is an impact which is important, notable, or of consequence, having regard to its context or intensity. Whether or not an action is likely to have a significant impact depends upon the sensitivity, value, and quality of the environment which is impacted, and

upon the intensity, duration, magnitude and geographic extent of the impacts.

- 1.8 The current Significant Impact Guidelines do assist in making the determination at the referral stage of a proposal as to whether or not further assessment and approval of an action is required. If assessment and approval is required, the decision whether or not an action is acceptable and, therefore, can be approved under the EPBC Act, takes into account further detailed information provided by the proponent, social and economic information and, where necessary, other scientific and technical sources, to assess whether specific impacts on matters of NES are likely to be acceptable.

**The exercise of approval and other legislative powers under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) relating to the Montara Oil Field Development (reference number 2002/755) including:**

- 3. In the light of the Uncontrolled Release and subsequent response, what are DEWHA's views in relation to whether the current legislative framework and administrative arrangements provide adequate protection for the environment, and in particular, the environment of the Commonwealth marine area, including:**
- a. whether the current legislative framework will allow the imposition of additional conditions in future environmental approvals for petroleum developments to ensure proponents are responsible for managing and mitigating the environmental consequences of an uncontrolled release; and**
  - b. whether any additional legislative powers would assist DEWHA:**
    - i. in its response to future oil spills; and/or**
    - ii. to ensure that the proponent of an action is financially responsible for any monitoring, compensation and/or remediation if the action results in environmental impacts.**

- 1.9 DEWHA considers that the Uncontrolled Release and subsequent response have highlighted a number of deficiencies in the protection regime of the EPBC Act.
- 1.10 The EPBC Act does not contain provisions to deal comprehensively or quickly with an environmental incident. This is something that the recent independent review of the EPBC Act conducted by Dr Allan Hawke identified. Dr Hawke recommended this deficiency should be remedied through the provision of a power to issue Environment Protection Orders which could be used both to make someone stop doing something or require them to take particular action.

- 1.11 There is a power in the EPBC Act for the Minister to make Conservation Orders but this does not constitute a general ‘clean up’ power. Conservation Orders relate only to listed threatened species and communities and not the environment generally nor migratory or marine species – among the principal concerns in the Commonwealth marine area.
- 1.12 The particular legal problem in the case of the Uncontrolled Release is that the spill occurred during the course of taking an action that has EPBC Act approval. Unless a breach of conditions could be demonstrated, no direct compliance action could be taken. The approval means that sections 23 and 24A of the EPBC Act (the offence provisions) do not apply. Further, because the action was approved for sections 23 and 24A, the offences in Part 13 of the EPBC Act for killing/injuring/taking a ‘listed marine species’ in a Commonwealth area, also do not apply (see section 255(c)). The offences in Part 13 for killing/injuring/taking listed threatened and listed migratory species in a Commonwealth area would only apply where it was determined that the uncontrolled release was caused by negligence or recklessness (see sections 197(i) and 212(i)).
- 1.13 This means that, legally, DEWHA had no power under the EPBC Act or any other environmental legislation to immediately force PTTEPAA to take any particular action. DEWHA considered that the best option was to negotiate with the company through the Memorandum of Understanding process. The alternative, of awaiting the outcomes of compliance investigations, was not considered a valid option given the urgency of the situation. Because the spill was in Commonwealth waters, state powers to enforce action did not apply.
- 1.14 In order to enhance DEWHA’s power to effectively deal with unplanned events that cause harm to the environment, it would be useful to consider the inclusion of new provisions under the EPBC Act.
- a. New provisions related to causing serious harm or material harm to a protected matter (modelled on the South Australian Environmental Protection Act 1993).

New contravention provisions related to causing serious harm to a protected matter and material harm to a protected matter could be introduced, and would apply regardless of whether or not an EPBC Act approval is in place or an EPBC Act ‘action’ has been taken, in circumstances where there was intention, recklessness or negligence. Serious harm would be greater than material harm.

The remedies for the contraventions should include criminal and civil penalties as well as the other enforcement mechanisms under the EPBC Act.

Those mechanisms should be expanded to include Environmental Protection Orders along the lines recommended by Dr Hawke. Where there is no intention, negligence or recklessness it would still be appropriate to allow the Minister to issue an Environment Protection Order or take other measures to require the person causing the harm to remediate the damage or to cover the costs of remediation. This mechanism would be available to remedy harm quickly and unambiguously when it was caused by an unplanned, unintended or unauthorised incident, even where that occurs in the course of taking an action which is authorised by an approval. Events such as an oil spill satisfy this criteria.

The rationale for provisions of this type is the ‘Polluter Pays’ Principle. Even where there is no fault on the part of the person undertaking the activity, if the environmental harm is serious enough to require remediation, the principle requires the costs to be borne by that person rather than by the taxpayer.

Where any of these provisions were being considered for application in a area within state or territory jurisdiction, provision would also need to be made to avoid duplication with similar state or territory provisions.

These provisions would be in addition to the existing contravention provisions for having a significant impact without an approval or breaching conditions attached to an approval.

b. Inquiry power

The Minister should be given powers to initiate an inquiry, to investigate events that have resulted in serious or material environmental harm. The inquiry should have powers similar to those of a Royal Commission. The inquiry would be able to make both specific recommendations about enforcement action for contraventions under the EPBC Act and general recommendations for changes to law, policy or administration. The usual legal protections for members and witnesses would apply. Where other legislation provides for an inquiry covering the same or similar events, provisions would be needed to avoid duplication and ensure comity.

- 1.15 As noted in its first submission DEWHA, as a Canberra based agency, relies primarily on various Commonwealth and state service providers for operational activities outside its terrestrial national parks. The Uncontrolled Release demonstrated that these administrative arrangements are not necessarily optimal when there is potential for significant environmental damage to occur in the Commonwealth marine area. The Productivity Commission’s recommendation of a national offshore petroleum regulator may provide an answer provided it had, or had ready access to, the operational capability needed and provided the

issues raised in DEWHA's first submission regarding independence, environmental credibility and potential conflicts of interest could be adequately addressed.

- 1.16 DEWHA notes that the two recent reviews relevant to the regulation of offshore petroleum – the Productivity Commission Review of Upstream Petroleum Regulation and the Hawke Review of the EPBC Act – both identified the benefits of streamlined and efficient regulation. Dr Hawke noted that, while the regulatory burden imposed on offshore petroleum activities should not be unnecessarily high, there is a need for the Environment Minister to retain a role in their ecologically sustainable management. The Productivity Commission also found there would appear to be merit in retaining an independent decision maker of last resort, particularly in relation to matters of potential national environmental significance. The Commission noted this would be consistent with the underlying rationale of the EPBC Act.

## Part B – Response to the Uncontrolled Release

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- 4. Describe DEWHA's views and or knowledge about its role as Environmental and Scientific Coordinator (ESC) in relation to the Uncontrolled Release under the National Oil Spill Contingency Plan (the National Plan), including:**
- a. DEWHA's views as to the process by which it was appointed as / assumed the role of ESC under the National Plan;**
  - b. why DEWHA was not appointed / did not assume the role of ESC until 15 September 2009 when the Uncontrolled Release occurred on 21 August 2009; and**
  - c. whether DEWHA's ability to carry out its responsibilities as ESC was affected by the fact that it was located remotely from the Incident Management Team, and if so, what, if any, improvements DEWHA recommends in regard to these arrangements for future oil spill incidents.**

2.1 DEWHA's response to this question is framed against the background that DEWHA has only limited responsibilities ascribed to it under the National Plan. Section 2.10.3 of the National Plan clearly describes DEWHA's role in responding to an oil spill as providing advice on:

- obligations, including permitting and reporting of emergency dumping, under the *Environment Protection (Sea Dumping) Act 1981*;
- Australia's obligations under the London Dumping Convention and its 1996 Protocol<sup>1</sup>;
- potential impacts of oil spills on threatened marine and migratory species;
- proposals approved under the EPBC Act;
- habitats in Commonwealth Marine Reserves, Antarctic and sub-Antarctic flora and fauna; and
- rates of hydrocarbon biodegradation, dispersal and use of dispersants in cold climates.

2.2 The National Plan states, at Section 2.9.1.7, that the Commonwealth, each State and the Northern Territory shall pre-appoint an ESC. Commonwealth ESCs are appointed by AMSA under the National Plan and, in this instance, three AMSA officers were pre-appointed to the role.

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<sup>1</sup> The 1996 *Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972*, known as the London Protocol, limits the types of materials that may be considered for ocean disposal.

- 2.3 DEWHA participated in Incident Coordination Group (ICG) meetings throughout the incident. DEWHA attempted to address the potential for environmental impacts by providing ongoing advice to AMSA on the sensitive species and habitats in the region, that in DEWHA's view needed to be considered in deciding the most appropriate response option(s). In addition, on 25 August 2009 DEWHA provided initial high level information to AMSA on environmental sensitivities in the Montara region (Attachment A). This information had been prepared for DEWHA internal briefing purposes and included information from AMSA on the physical impacts of oil and the use of dispersants. Based on daily meetings of the ICG during the initial stages of the response, DEWHA formed the view that the oiled wildlife and environmental impact elements of the response required greater focus than was able to be provided by AMSA due to appointed ESCs being engaged on other key elements of the response.
- 2.4 DEWHA initiated wildlife response operations on 31 August 2009 in recognition of its management responsibilities for the Commonwealth marine reserves in the region and because it was apparent that this aspect of the overall response required greater attention. The extent of activities undertaken by DEWHA is outlined in the Department's first submission to the Commission of Inquiry. In conducting these activities, DEWHA carried a potentially significant unfunded liability as cost recovery from PTTEPAA for those activities was not assured at that time.
- 2.5 On 14 September 2009 DEWHA met with AMSA to discuss response operations and the situation where DEWHA was conducting operations activities, specifically the wildlife response, without formal authority to do so under the National Plan. While the National Plan clearly allocates responsibility for oiled wildlife response in state/territory waters to state/territory environment protection agencies (section 2.14), the National Plan is silent on the arrangements for remote offshore Commonwealth waters. Following the meeting with AMSA, it was agreed that DEWHA would assume the role of ESC, inclusive of:
- responsibility for oiled wildlife response in Commonwealth waters and working with relevant state/territory agencies responsible for oil affected wildlife in their jurisdictions;
  - providing advice regarding the likely environmental impacts of the oil spill, environmental priorities and preferred response options based on the available species and marine environment information; and
  - advising AMSA to seek specialist environmental and species advice and assistance (as appropriate).
- 2.6 This agreement was confirmed in writing on 15 September 2009 (Attachment B), thereby formalising DEWHA's operational authority for the duration of the response. This appointment also strengthened the capacity of DEWHA to negotiate the detail of the long term monitoring plan with PTTEPAA and assured relevant state and territory agencies of

cost recovery provisions and DEWHA's authority under the National Plan.

- 2.7 The role of ESC was assigned to DEWHA as an agency rather than the ESC being a nominated officer within DEWHA. In fact seven officers were responsible for DEWHA's involvement in responding to the incident, which included:
- ministerial, senior government, industry and media liaison;
  - environmental monitoring plan development and implementation;
  - coordination of oiled wildlife response operations;
  - development of and collaboration on environmental advice; and
  - operational engagement with relevant agencies.
- 2.8 Given these multiple responsibilities and the seriousness of the incident, DEWHA determined that decision-making needed to take place at senior levels within the department and, therefore, the ESC could not be co-located with the Incident Management Team (IMT), stationed initially in Canberra and later in Darwin. However, from 1 October to 24 November 2009, DEWHA seconded a liaison officer to the IMT to act as an information conduit for personnel with decision making authority in Canberra. DEWHA notes that Canberra based DEWHA officers continued to participate in regular ICG meetings following the secondment of a DEWHA liaison officer to the IMT.
- 2.9 DEWHA does not consider that remote location from the IMT affected its ability to carry out its responsibilities as ESC. A twenty four hour contact was provided to the IMT for matters requiring urgent attention, contact details for relevant DEWHA officers with decision making authority were provided for less urgent issues and between 1 October and 24 November 2009 a DEWHA liaison officer was stationed in the IMT to improve information flow between the IMT and DEWHA. Wildlife response was coordinated from DEWHA's Canberra-based operations in consultation with relevant state and territory agencies; it was DEWHA's expectation that these arrangements would be sufficient for the advisory role of the ESC.
- 2.10 Prior to the Uncontrolled Release, DEWHA had not been actively involved to this degree in the operational response to an oil spill. Officers of DEWHA had not been required to participate in training or exercises described at Section 2.16 of the National Plan given the agency's limited role under the National Plan.
- 2.11 DEWHA considers that the role of ESC would have been more appropriately undertaken by a pre-appointed individual who had participated in National Plan training and exercises, who was dedicated to this task and who could access advice from DEWHA and other parties more quickly. That said, DEWHA was able to access advice from other parties due to its strong pre-existing relationships with relevant

Commonwealth, state and territory agencies. Advice in response to queries was provided within short timeframes and prioritised.

- 5. Describe DEWHA's views as to whether the National Plan adequately provides for environmental monitoring and protection in Commonwealth waters and, if not, how it could be improved, including:**
- a. how effectively it sets out the responsibilities of government agencies in responding to incidents in Commonwealth waters and provides for the timely appointment of an ESC for an incident; and**
  - b. the appropriate agencies to fulfil such roles.**

- 2.12 The National Plan is designed primarily to ensure that Australia is prepared to respond to ship-sourced pollution incidents, although it does also address incidents associated with offshore oil and gas platforms. Pollution response in the marine environment requires an effective capacity to assess environmental impact so as to inform response operations and identify and address environmental damage. Because the National Plan provides for only limited monitoring to inform response operations DEWHA believes it does not provide effectively for monitoring to identify and address environmental impacts, particularly impacts over the long term.
- 2.13 DEWHA considers that adequate protection of the environment from a spill requires the following:
1. information regarding sensitive areas;
  2. coordination of environmental advice from relevant experts;
  3. coordination of control, clean-up and wildlife response operations;
  4. resources to implement wildlife response;
  5. coordination of environmental monitoring; and
  6. resources to implement short and long term environmental monitoring.
- 2.14 DEWHA considers that the National Plan adequately provides for points one to four in paragraph 2.13 in relation to shipping sourced incidents; however, the National Plan does not adequately provide for points five and six during shipping related incident response, nor does it adequately provide for incidents caused by activities other than shipping.
- 2.15 Based on the response to the Uncontrolled Release and the expectation that DEWHA would assume an operational role when the National Plan clearly describes DEWHA's role as advisory, DEWHA does not consider that the responsibilities of government agencies in responding to incidents in Commonwealth waters are adequately described. Moreover, the National Plan does not adequately assign responsibility for wildlife operations during responses to incidents occurring in remote Commonwealth waters.

- 2.16 In considering its own role in the National Plan, DEWHA notes it has limited operational capacity in the marine environment, mostly in relation to the management of Commonwealth Marine Reserves. However, even this function is predominantly a planning one, with most service delivery (e.g. surveillance and monitoring and other aspects of marine park management) generally contracted to either state agencies with an active on-water presence or to Australian Customs and Border Protection Command. DEWHA notes that any agency that was to take on the role of ESC during future incidents would need to be appropriately resourced and provided with sufficient decision-making authority.
- 2.17 DEWHA considers that the principal requirement for an ongoing capacity for adequate environmental advice, monitoring and protection in Commonwealth waters in the case of an oil spill is immediate access to relevant expertise and operational capability. This does not necessarily require the expertise and capability to reside within one organisation: however, given the extent of offshore activity, the National Plan should be clear about how that expertise and operational capability can be mobilised quickly Australia-wide. It may, for example, be most cost-effective to have arrangements in place to utilise the operational capability of the states and territories even in Commonwealth waters.
- 2.18 The National Plan should clearly spell out the arrangements to apply in Commonwealth waters including resourcing and decision-making so that, in the event of a spill, it is absolutely clear who is responsible for each of the various aspects of the response. This should be underpinned by appropriate training of response agencies, access to appropriate tools to support response roles and regular exercises, involving all relevant agencies, based on incidents in Commonwealth waters.

**6. DEWHA's submission refers to comments that were provided on the Net Environmental Benefit Analysis undertaken by AMSA in responding to the Uncontrolled Release:**

- a. **at what stage(s) of the response did DEWHA provide advice to AMSA on the net environmental benefit analysis**
- b. **what information did DEWHA provide AMSA or draw on to define the environmental sensitivities in the potentially affected areas; and**
- c. **to what extent did the advice provided by DEWHA convey information on the broader ecosystem functions in the area?**

- 2.19 On 25 August 2009, DEWHA provided AMSA with information about sensitive areas and the potential impacts on flora and fauna in the

region of the Uncontrolled Release (refer to paragraph 2.3). During the development of the advice on sensitive areas and potential flora and fauna impacts and throughout the response to the Uncontrolled Release, information was collected from a variety of sources, including:

- North-west Marine Bioregional Plan Bioregional Profile (2008)  
<http://www.environment.gov.au/coasts/mbp/north-west/index.html>;
- Ashmore Reef National Nature Reserve and Cartier Island Marine Reserve Management Plans (2002)  
<http://www.environment.gov.au/coasts/mpa/ashmore/resources.html>;
- Ashmore Reef National Nature Reserve and Cartier Island Marine Reserve Information for Visitors (2009)  
<http://www.environment.gov.au/coasts/mpa/ashmore/resources.html>;
- various published and unpublished research reports; and
- verbal advice from relevant experts and relevant government agencies.

It should be noted that this advice was provided for the sole purpose of describing the environmentally sensitive habitats and species in the region.

- 2.20 DEWHA first requested a copy of the Net Environmental Benefit Analysis (NEBA) on 3 September 2009. Prior to providing DEWHA with a copy AMSA assured DEWHA that the use of chemical dispersants was consistent with international best practice and was subject to a strict testing protocol, established by AMSA, to meet benchmark standards. DEWHA was also advised, informally, that AMSA had consulted with its counterparts in the United Kingdom prior to applying chemical dispersants in response to the Uncontrolled Release. On 11 September 2009, AMSA provided a copy of the NEBA to DEWHA, as an attachment to the Incident Action Plan (IAP). The NEBA cited the advice provided by DEWHA described in paragraph 2.19. Because this advice had not been intended for use in the NEBA, DEWHA requested these citations be removed on 11 September 2009.
- 2.21 DEWHA undertook a review of the NEBA following its appointment as ESC and provided AMSA with formal advice on the NEBA on 29 September 2009 (Attachment C). Advice on the NEBA assessed, *inter alia*, the comparative environmental risks of using chemical, mechanical and natural methods of dispersing an oil spill. Information sources used by DEWHA to develop this advice are cited in the document. It should be noted that DEWHA requested results from water quality monitoring, identifying the horizontal and vertical distribution of oil, dispersant and dispersed oil, to inform its advice; however, these results were not available until after DEWHA advised AMSA on the NEBA. Due to the scarcity of peer reviewed research in this area DEWHA recommends that further research be conducted to determine the fate, effect and toxicity of dispersed oil and dispersants so as to inform future oil spill responses.

- 2.22 DEWHA received advice from AIMS on 7 and 8 October 2009 indicating that a minor coral spawning event was expected to occur at the inter-tidal reefs and shoals in the region of the Uncontrolled Release between 11 and 14 October 2009 and that the application of dispersants on or near coral spawn was not recommended. DEWHA considered that AIMS's advice was consistent with that provided to AMSA on 29 September 2009.
- 2.23 DEWHA received preliminary monitoring results on the fate of dispersed oil on 22 October 2009 and final results on 31 October 2009. DEWHA determined that these results were inconclusive for the purposes of providing additional advice on the NEBA. DEWHA notes that the application of chemical dispersants ceased on 1 November 2009.
- 2.24 DEWHA notes that the availability of additional information regarding the fate of dispersed oil and dispersants generally and specifically relating to this incident would have allowed a more comprehensive review of the NEBA and may have influenced advice to AMSA regarding the NEBA.
- 2.25 DEWHA's advice on the NEBA included consideration of the potential impacts of the response operations on the broader ecosystem functions in the area. It provided a synopsis of relevant regional oceanography, ecology and sensitive habitats. The NEBA also included analysis of the potential impacts or interactions between various methods of dispersion (chemical, mechanical and natural) and each ecosystem function.

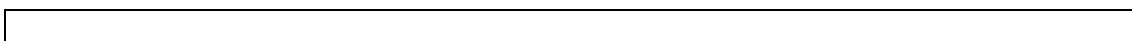
**7. The decision to use dispersants in responding to the Uncontrolled Release including:**

- a. The reasons for DEWHA supporting AMSA's decision to use chemical dispersants; and**
- b. Whether DEWHA considers the benefits of reducing oil on surface waters (and therefore the risk of the oil reaching coastal habitats) and the increased risk to pelagic, benthic organisms, coral spawn and fish larvae were appropriately balanced and the reasons for this view.**

- 2.26 As described in paragraph 2.21, attachment C, advice provided by DEWHA to AMSA on the NEBA and recommendations regarding the use of chemical dispersants, was based on information available to DEWHA at the time. DEWHA notes that the National Plan assigns the decision regarding the use of chemical dispersants to the Incident Controller.
- 2.27 As noted in paragraph 2.24, the availability of additional information, particularly the results of operational monitoring on the vertical distribution of oil, dispersant and dispersed oil in the water column would

have allowed more effective advice to be provided to AMSA regarding the use of chemical dispersants.

- 2.28 As described in paragraph 2.22 DEWHA received advice from AIMS (which was also sent to AMSA) regarding coral spawning activity in the region of the oil spill. DEWHA considered this advice, and determined that it was consistent with the advice DEWHA had previously provided to AMSA regarding the use of chemical dispersants. Therefore, it was concluded that it did not warrant the provision of additional advice on the NEBA to AMSA. DEWHA notes that the advice on the NEBA provided on 29 September 2009 included reference to the toxic effect oil, dispersants and dispersed oil have on coral, coral larvae and fish larvae.
- 2.29 DEWHA also sought information regarding fish and coral spawning activity in the region from a range of sources including the Marine Bioregional Profiles for the North and North-west marine regions and relevant fisheries agencies during the development of the advice on the NEBA. This did not conflict with information received after DEWHA provided its advice to AMSA. Consequently, DEWHA determined that additional advice regarding the use of chemical dispersants was not warranted.
- 2.30 DEWHA's advice on the NEBA included consideration of the benefits and problems associated with oil remaining on the surface of the water. The advice identified the effects that reducing this may have on the marine and coastal environments (see Attachment C). For example the NEBA:
- compares modelling results which show a significantly increased probability of sensitive coastal areas being impacted by oil without the use of chemical dispersants;
  - analyses the risk, based on available information, to pelagic organisms such as cetaceans, marine turtles, sea snakes and fish and recommends that all necessary steps be taken to avoid a situation where species mortality may arise;
  - compares the various methods of dispersion (chemical, mechanical and natural) and recommend a mix approach to use of these methods; and
  - cited research that examined the various chemical dispersant options and recommended the use of particular dispersants that have been shown to have had the least impact on marine environment including coral and fish larvae.
- 2.31 Results of water quality monitoring, particularly on the vertical distribution of oil, dispersant and dispersed oil in the water column were finalised on 31 October 2009 but were inconclusive. The absence of conclusive results during the operational response was of concern to DEWHA.



- 8. DEWHA's view that 'a clearer understanding of the overall picture may have been warranted during AMSA's development of the Net Environmental Benefit Analysis pertaining to the use of dispersants', including whether DEWHA considers that:**
- a. the extent of consultation regarding dispersant application (including the consultation with relevant experts regarding the comparative risks to the marine environment) was adequate;**
  - b. the advice that it and other parties provided to AMSA regarding environmental impacts was appropriately taken into consideration by AMSA in executing its response to the oil spill; and**
  - c. it was adequately consulted in relation to the application of dispersant throughout the response to the Uncontrolled Release.**

- 2.32 DEWHA is not aware of the extent of AMSA's consultation with other parties regarding dispersant application other than having been informally advised that AMSA had consulted with their United Kingdom counterparts. Other than the advice AIMS provided DEWHA and AMSA concurrently regarding coral spawning in the region, DEWHA is not aware of what other advice AMSA received from other parties regarding the use of chemical dispersants. Therefore DEWHA cannot comment on the extent of consultation, or whether advice received by AMSA was appropriately taken into consideration in executing the response to the oil spill.
- 2.33 As described in paragraph 2.20 DEWHA requested a copy of the NEBA on 3 September 2009 after DEWHA became aware that a NEBA was required prior to the application of chemical dispersants. DEWHA was not consulted during the development of the NEBA. The NEBA was provided to DEWHA, as part of the Incident Action Plan on 11 September 2009. DEWHA noted at the time that the NEBA referred to advice DEWHA had provided regarding environmentally sensitive habitats and species on 25 August 2009.
- 2.34 As noted in paragraph 2.21 DEWHA provided advice to AMSA on 29 September 2009 regarding the NEBA. While DEWHA supported the use of chemical dispersants, based on advice available at the time, DEWHA does not consider that the advice provided on 29 September 2009 was adequately referenced in the NEBA circulated in subsequent versions of the IAP. While this advice was considered by AMSA, it was not referenced in the NEBA, and in DEWHA's view the NEBA would have been strengthened by the explicit reference to these matters, which were:

- comprehensive consideration of stochastic modelling of dispersant effectiveness was omitted, including potential impacts to all sensitive environments at risk and likely impact simulation data;
- an analysis of the environmental costs and benefits associated with using chemical dispersants relative to other methods of dispersion (mechanical and natural) were not included;
- limitations and conditions of chemical dispersant use were not explicit; and
- gaps in toxicological data on oil and dispersant behaviour were not identified.

2.35 While recognising that operational response required judgements and decisions in real time, DEWHA notes that it was not consulted on any other aspects regarding the application or use of chemical dispersant, including operational aspects such as conditions associated with their use, for example minimum ambient and water temperatures. At the time of the first ICG AMSA had already commenced applying dispersants.

## Part C – Environmental Monitoring and Impacts

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### THE DEVELOPMENT OF THE MONITORING PLAN

- 9. According to DEWHA's submission to the Inquiry, it met with AMSA and PTTEPAA on 26 August 2009 to discuss the need for a long-term environmental monitoring plan. The Inquiry is interested on DEWHA's views about:**
- a. why a monitoring regime was not put in place until 9 October 2009;**
  - b. whether the plan could have been delivered more rapidly;**
  - c. whether DEWHA required PTTEPAA's agreement in relation to the Monitoring Plan before a monitoring regime was commenced and, if so, why; and**
  - d. what, if anything, prevented DEWHA from establishing its own monitoring plan.**

- 3.1 As noted in paragraph 1.13, DEWHA had no power under the EPBC Act nor any other environmental legislation to require PTTEPAA to take any particular action, including developing and implementing a monitoring plan. Such a plan required negotiating with PTTEPAA and their agreement to proceed. Further, it was important that the negotiated plan be subject to consultation and peer-review by the Western Australian and Northern Territory governments, as well as independent marine science experts from AIMS and CSIRO before finalisation. These were significant reasons why the agreed monitoring plan was not finalised until 9 October 2009.
- 3.2 DEWHA does not consider that the monitoring plan could have been developed more rapidly without additional human and other resources and corporate experience in oil spill response or the development of a monitoring plan template prior to spills occurring.
- 3.3 While the Monitoring Plan was not agreed until 9 October 2009, operational monitoring was initiated in the region on 21 August 2009. Operational monitoring in the early stages of the response included aerial and vessel surveillance, wildlife monitoring and oil and water sampling. DEWHA notes that agreement from PTTEPAA to full cost recovery was required before monitoring could commence. This is due to cost recovery provisions in the National Plan addressing ship sourced incidents, but being silent on cost recovery arrangements for oil and gas infrastructure sourced incidents.
- 3.4 DEWHA considers that if the existing legislative framework had required a spiller to undertake impact assessments in the short and long term,

this would have strengthened the Australian Government's position with respect to negotiating this outcome with PTTEPAA (i.e. consultation with PTTEPAA rather than negotiation), and may have also resulted in expedited agreement to the monitoring plan. DEWHA notes that such a legislative framework could extend beyond requiring spiller funded short and long term environmental impact assessment to include minimum monitoring requirements.

- 3.5 DEWHA focussed its efforts on the development and implementation of a monitoring plan that would be funded by PTTEPAA, to ensure a robust yet proportionate monitoring regime was instigated for short and long term monitoring. Recognising the very high costs of monitoring in such remote locations, DEWHA was mindful that it was not resourced for implementing post-spill environmental monitoring itself, that there is no legislative requirement for post-spill environment monitoring, and there was no access to cost-recovery arrangements. DEWHA considered that the best option was to negotiate a monitoring plan under which PTTEPAA accepted responsibility for funding. DEWHA notes that awaiting the results of compliance investigations was not considered a valid option given the urgency of the situation.
- 3.6 One future option is that monitoring plans could be developed as a matter of course and required in approval conditions as, for example, part of a project's Oil Spill Contingency Plan (OSCP). The Minister has broad discretion under section 134 of the EPBC Act to apply conditions to the taking of an action. It may, therefore, be possible to apply, as a standard condition of approvals which involve a risk of oil spills, a requirement that a monitoring plan be developed, which would be implemented in the event of a spill. However, a number of practical implications would need to be considered to determine if this approach would strengthen or improve environmental outcomes if generically applied to all actions approved under the EPBC Act. For example:
- could a generic requirement sufficiently address all risks with potential adverse impacts, both offshore and onshore?;
  - a monitoring plan could be developed and approved at the same time as the requirement for an OSCP. The monitoring plan could then be activated in the event of a spill. This approach would expedite the commencement of environmental monitoring although it would still be post incident monitoring;
  - in order to effectively determine if the "incident" has been a source of environmental harm, monitoring would also be required at an appropriate control site or measured against baseline monitoring (refer to paragraph 3.53 to 3.60) to demonstrate if environmental change can be attributed to the "incident";
  - would the cost of monitoring, in some circumstances, exceed the cost of remediating or compensating for environmental harm?

It should be noted that the requirement for a monitoring program would not reduce the likelihood of the risk event occurring.

**10. A description of the consultation undertaken during the development of the Monitoring Plan, including:**

- a. The extent to which relevant experts in monitoring and impact assessment, including the Australian Institute of Marine Science (AIMS) and the University of Western Australia were consulted during the development of the Monitoring Plan; and**
- b. The extent to which other government agencies or experts were consulted during the development of the Monitoring Plan.**

- 3.7 DEWHA initiated consultation with relevant Commonwealth, Northern Territory and Western Australian Government agencies on 2 September 2009. Consultation regarding the Monitoring Plan was initiated with AIMS on 4 September 2009 and with CSIRO on 15 September 2009. Consultation included oral discussions and written correspondence.
- 3.8 The consultation process DEWHA undertook included the following:
- a. initial discussions with relevant parties to apprise them of the situation;
  - b. providing copies of the first draft of the monitoring plan to relevant parties for comment;
  - c. discussion with all relevant parties on their comments;
  - d. considered comments received from all relevant parties;
  - e. providing consolidated comments to PTTEPAA;
  - f. meeting representatives from PTTEPAA to discuss amendments;
  - g. repeating points 'b' to 'f' for the second draft of the monitoring plan; and
  - h. agreeing the finalised monitoring plan which was distributed to relevant parties.
- 3.9 The University of Western Australia, and other academic research institutions, were not consulted by DEWHA during development of the Monitoring Plan because DEWHA was satisfied that AIMS and CSIRO had sufficient expertise to advise DEWHA on relevant matters. DEWHA notes that the University of Queensland and Curtin University were consulted on specific aspects of wildlife operational monitoring, in particular for the megafauna survey of the region and for conducting toxicology testing on collected wildlife.
- 3.10 DEWHA established a Technical Advisory Group (TAG) to assist in the development and implementation of the Environment Monitoring Plan agreed between DEWHA and PTTEPAA. The TAG was established to ensure that all relevant interests were captured and that monitoring was robust and undertaken by appropriately qualified and independent experts. Members of the TAG include representatives from AIMS,

CSIRO and relevant Western Australian and Northern Territory government agencies.

- 3.11 There was an expectation conveyed by DEWHA that, representatives on the TAG (particularly those representing the ESCs of state and territory jurisdictions) were to consult with the relevant experts in their jurisdiction during the development of the monitoring plan and provide this advice to DEWHA. Consequently, engagement with relevant experts in government agencies was broader than those listed above although DEWHA is unable to elaborate the extent of this secondary engagement.

**11. DEWHA's submission to the Inquiry notes that primary responsibility for potential impacts to fish and fisheries management rests with the relevant fisheries management agencies. The Inquiry is therefore interested in the extent to which DEWHA consulted these agencies during the development of the Monitoring Plan.**

- 3.12 As described in paragraph 3.7 DEWHA initiated consultation with relevant Commonwealth, Northern Territory and Western Australian Government agencies including the Australian Fisheries Management Authority (AFMA), the Northern Territory Department of Fisheries and the Western Australian Department of Fisheries on 2 September 2009.
- 3.13 These agencies were directly consulted during the initial development of the monitoring plan and the first draft. Consultation with state and territory fisheries agencies on the second draft of the plan was via the relevant state or territory ESC. DEWHA liaised directly with AFMA during consultation on the second draft of the Monitoring Plan.
- 3.14 In addition, DEWHA facilitated a workshop with the Northern Territory and Western Australian fisheries agencies and PTTEPAA to ensure that key components of the monitoring studies that relate to potential and actual fisheries impacts were agreed.
- 3.15 DEWHA notes that under the Monitoring Plan, input on scientific monitoring study proposals is sought from the Northern Territory and Western Australian ESCs prior to approval being issued. During this process DEWHA expects that the ESCs will consult with relevant agencies within their jurisdiction and return consolidated jurisdictional comments to DEWHA.

## THE ADEQUACY OF THE MONITORING PLAN

**12. According to Gagnon 2009 it was 'imperative to commence a monitoring program of fish health during the oil spill, and continue monitoring after the oil leak has been solved'. The Inquiry is therefore interested in the extent to which this recommendation implemented and, if it wasn't, the reasons for this.**

- 3.16 The purpose of Gagnon 2009 was to report on the results of toxicology analysis on four fish collected in the region of the oil spill. The analysis was undertaken as part of operational monitoring, specifically Wildlife Impact Monitoring (O5), and aimed to determine whether commercial fish catch from the region was safe for human consumption. .
- 3.17 Several other operational monitoring studies ran concurrently with the this study. For example, Monitoring of Oil Distribution and Marine and Coastal Resources (O1), including aerial and vessel surveillance had been initiated to determine the horizontal extent of oil in the water. Monitoring of Oil Character Fate and Effects (O2) had been initiated to determine the weathering process of oil and Monitoring of Dispersant Efficiency. Fate of Dispersed Oil (O4) had been initiated to determine the effectiveness of dispersant operations and the vertical distribution of oil in the water column. Each of these operational monitoring studies was also intended to inform longer term scientific monitoring studies, including fish health assessments.
- 3.18 A proposal for the Assessment of Current Effects on Timor Sea Fish and Fisheries (S4A) during response monitoring was received on 15 October 2009. The study was provided conditional approval, following peer-review, on 26 October 2009. Fieldwork for this study was conducted between 9 and 16 November 2009, during which time oil was still present in the environment, although the leak had been stopped.
- 3.19 The development of a proposal for the Assessments of Long Term Effects on Timor Sea Fish and Fisheries (S4B) is underway. DEWHA expects that this study will examine the actual and potential effects on commercially important fish species. This study will identify these effects by monitoring fish populations and comparing catch effort and species composition post-Uncontrolled Release with historical records. This will be conducted in a way that ensures any potential effects on various life stages of commercially important species are identified.

**13. A number of submissions to the Inquiry received by the Inquiry made observations regarding how the Monitoring Plan and studies under the Scientific Monitoring Program may be enhanced, or implied that further analysis of the studies would be possible when the results were made available. The Inquiry is therefore interested in whether DEWHA will be reviewing the Monitoring Plan, including the extent of studies and the**

**appropriateness of triggers, as results become available.**

- 3.20 Experts from AIMS, CSIRO and relevant Western Australian and Northern Territory government agencies were consulted during the development of the monitoring plan which included defining the extent of studies and the specifications for study triggers.
- 3.21 Analysis of studies will be conducted by DEWHA with input sought from the members of the Technical Advisory Group. The results will inform decisions about the need for further monitoring under the same study and the activation of other studies that may not have yet been triggered.
- 3.22 When accepted, final reports will be released on DEWHA's website, providing public transparency to the process and allowing the opportunity for experts not on the TAG to comments on the results.
- 3.23 The Memorandum of Understanding agreed between DEWHA and PTTEPAA provides scope to review the extent of studies, the appropriateness of triggers (ie reliance on operational monitoring study results which may not be conclusive) and the content of the monitoring plan, as results become available. The extent to which this is needed will be considered on a case by case basis as reports/results become available.

**14. A number of submission to the Inquiry also suggest that the use of operational monitoring results to trigger further scientific monitoring studies is not necessarily appropriate given the deficiencies in the operational monitoring data. The DEWHA submission also infers that operational water quality monitoring results were not provided to it in a timely manner, and were of limited assistance. The Inquiry is therefore interested in:**

- a. why the Scientific Monitoring Programme was not executed concurrently with the Operational Monitoring Program;**
- b. to what extent DEWHA supports the 'Type 1' and 'Type 2' approach to oil spill monitoring for the purpose of assessing environmental impacts;**
- c. whether DEWHA will be reviewing the use and appropriateness of the triggers within the Monitoring Plan; and**
- d. whether DEWHA considers that the Type 1 and Type 2 monitoring approach, as outlined in the National Plan, is appropriate or whether a more integrated approach to Operational and Scientific Monitoring Programs would be more appropriate.**

- 3.24 No scientific monitoring studies were executed until after the Monitoring Plan was agreed to between PTTEPAA and DEWHA on 9 October 2009. This was because without a plan to guide the execution, there would have been no agreement on what scientific monitoring would include. Issues around the time taken to finalise the Monitoring Plan are addressed above in paragraphs 3.1 to 3.6. Additionally, specification of the processes described in the MoU between PTTEPAA and DEWHA, regarding study proposal approval, was required to ensure scientific monitoring was conducted by appropriately qualified and independent experts.
- 3.25 Operational monitoring was initiated within days of the spill being reported and this continued until the response was terminated on 3 December 2009. Operational monitoring studies were designed to provide rapid delivery of information that was capable of informing scientific monitoring studies. For example, the rapid assessment of wildlife provided by Wildlife Impact Monitoring (O5) informed consideration of whether Marine Megafauna Aerial Assessment Surveys (S1) had been triggered, and the decision that the Shoreline Ecological Ground Survey (S6) has been triggered for seabirds, marine turtles, sea snakes and coral.
- 3.26 Some scientific monitoring studies were conducted concurrently with operational monitoring. Once the Monitoring Plan was agreed, and on the basis of results received from operational monitoring, PTTEPAA sought proposals for scientific monitoring studies that had been triggered from relevant experts. DEWHA received a proposal from PTTEPAA for scientific monitoring study S4A on 15 October 2009. The study was provided conditional approval, following peer-review, on 26 October 2009. The next proposal received by DEWHA for approval on 26 October 2009 was turned around in three days with conditional approval being issued on 29 October 2009. The fieldwork for this study was conducted between 8 and 18 November 2009 concurrently with operational monitoring.
- 3.27 In principle DEWHA supports the distinction between operational monitoring (Type I) and scientific monitoring (Type II) to monitor the environmental impact of oil spills. However, DEWHA considers that there are gaps in the way monitoring was conducted during the response to the Uncontrolled Release, and that better arrangements could be made for the future that ensure baseline monitoring commences earlier to provide benchmarks against which long term monitoring can be undertaken. Such early monitoring would still need to be determined case by case on the basis of potential environmental impacts associated with the particular incident.
- 3.28 DEWHA notes that during operational responses there are usually safety concerns necessitating limitations on the number and minimum training standards for individuals in the area of an oil spill. These considerations may have implications for the feasibility of conducting

scientific (Type II) monitoring during the operational response to an incident and lends support to the distinction between operational and scientific monitoring.

- 3.29 DEWHA acknowledges that operational monitoring is inherently focused on informing response agency decision-making, with the aim of minimising the environmental impacts of the spill. Therefore, operational monitoring data must be acquired and processed rapidly so that it can be quickly acted upon. Therefore it may not be as rigorous as scientific monitoring. However, DEWHA believes that the operational monitoring, particularly monitoring the vertical distribution of oil, dispersant and dispersed oil in the water column, conducted during the response could have been more timely and effective in terms of informing decision-making about the use of dispersants and potential impacts on marine species such as fish and corals/banks.
- 3.30 As described in paragraphs 1.13 and 3.1, Australia has no legislative basis to require that spillers undertake or fund scientific monitoring. Instead, responsibility for such monitoring must either be assigned to relevant government organisations, or requires a voluntary commitment by industry or research organisations.
- 3.31 DEWHA will use the results of implemented studies to inform the use and appropriateness of triggers within the Monitoring Plan, in consultation with the Technical Advisory Group, on a case-by-case basis. Decisions regarding the need for further monitoring under the same study or whether the conduct of other studies should be triggered will be determined in consultation with PTTEPAA, in accordance with the agreement reached between DEWHA and PTTEPAA.

**15. DEWHA notes in its submission that it does not have a role in assessing or reviewing the veracity of the reports received under the Scientific Monitoring Program studies. The Inquiry is interested in:**

- a. what analysis of the reports and the results of the individual studies will be undertaken;**
- b. whether the results of the individual scientific studies will be peer reviewed; and**
- c. to what extent DEWHA considers that it can require the modification of studies under the Scientific Monitoring Program, should the results of individual studies indicate the study design or execution is flawed?**

- 3.32 Prior to implementation, scientific monitoring study proposals are reviewed by DEWHA and the TAG to ensure they are adequate and are implemented by appropriately qualified and independent experts.

- 3.33 Analysis of study results will be conducted by DEWHA and peer reviewed by members of the Technical Advisory Group. Should DEWHA or the TAG judge it necessary, further review may be sought (ie where specific technical expertise, beyond that provided by the Technical Advisory Group, is required). The public release of study results will provide additional transparency and allow the veracity of the monitoring and the results to be further tested. The results will inform further monitoring under the same study and the implementation of other studies that have been, or should be triggered.
- 3.34 Reviewing the extent of studies and the appropriateness of triggers, as results become available, is possible under the terms of the agreement reached between DEWHA and PTTEPAA. The requirement for this will be considered on a case-by-case basis as reports/results become available.
- 3.35 Under the MoU, DEWHA and PTTEPAA will in consultation, agree whether a trigger has been met, approve experts and monitoring studies, provide any other agreement or approval required under the MoU or the Monitoring Plan and agree to amendments of the Monitoring Plan, which may include modification of studies if results indicate study design or execution is flawed.

## ENVIRONMENTAL IMPACTS

**16. The extent to which the Monitoring Plan has enabled or will enable DEWHA to determine the extent of the impact of the Uncontrolled Release on the environment, including:**

- a. the extent to which the results of the Operational Monitoring Program have assisted in determining the nature and extent of environmental impacts;**
- b. when the result of the Scientific Monitoring Program, particularly studies S2 and S3, will be available; and**
- c. why studies S1 and S5 have not been triggered.**

- 3.36 Results from a number of operational monitoring studies have assisted DEWHA in determining the nature and extent of environmental impacts. Wildlife patrols of Ashmore, Cartier and Browse (O5), aerial and vessel surveillance of the region (O1), and toxicology analysis of fish and sea snake specimens (O5), have assisted in determining the nature of environmental impacts. Moreover, these results have triggered scientific monitoring studies, including: Shoreline Ecological Ground Surveys (S6) for sea snakes, marine turtles, sea birds and corals, Assessment of Fish Catch for the Presence of Oil (S3) and Assessment of Effects on Timor Sea Fish and Fisheries (S4) which are intended to determine the extent of the impacts on these species/communities.

- 3.37 Shoreline Ecological Assessment Aerial Surveys (S2) were triggered, based on aerial surveillance for the region (O1), for baseline monitoring of the coast between Darwin and Broome. The field work for this survey was conducted between 8 and 18 November 2009 and DEWHA expects to receive the report in February 2010.
- 3.38 A proposal for the assessment of Fish Catch for the Presence of Oil (S3) was approved on 10 December 2009, based on the results of toxicology analysis conducted as part of operational monitoring study O5. Field work was conducted in January 2010 following postponement due to Tropical Cyclone Laurence. DEWHA expects a report in March/April 2010.
- 3.39 Study 1 has not yet been triggered because the defined triggers have not been breached. Potential impacts to marine megafauna, including cetaceans, associated with contamination of prey species will be identified through the implementation of scientific monitoring study S3, the results of which will inform any decisions regarding the activation of scientific monitoring study S1.
- 3.40 Triggers for study S5 are contingent upon the results of monitoring study O2 indicating the detection of oil at a depth of more than 5m. Due to the issues with the adequacy of O2, this trigger can not be activated. PTTEPAA and DEWHA have agreed to use the results of S7 to determine if S5 requires activation. Monitoring of coral impacts at the offshore banks will be conducted as part of triggered coral studies under scientific monitoring study S6.

**17. Study 5 would, if triggered, examine the impact of the Uncontrolled Release on offshore banks. However the triggers for this study do not take into account the fact that coral spawning from these banks is likely to have coincided with the Uncontrolled Release. According to the submission to the Inquiry from the University of Western Australia, coral spawn are highly susceptible to both hydrocarbons and dispersants. The Inquiry is therefore interested in DEWHA's views on whether the Uncontrolled Release's impact on coral recruitment on these banks and other reef systems is adequately addressed by the Monitoring Plan.**

- 3.41 To date, no data is available to DEWHA regarding the actual impact of the Uncontrolled Release on coral recruitment on offshore banks.
- 3.42 Scientific monitoring study S6 has been triggered for coral to assess the extent of impacts on coral populations in the region, including at offshore banks and other reef systems. This study will assess the extent of any impacts from the oil spill on coral at Ashmore, Browse, Cartier, Hibernia and the offshore banks in the region.

3.43 Scientific monitoring study 5, if triggered, will:

- identify the biota and community structure of the banks;
- identify and quantify the physical character of the banks;
- estimate the potential exposure to oil and dispersant;
- and identify any obvious damage to the banks and associated communities.

3.44 DEWHA notes that advice received from AIMS indicates that the coral spawning event that occurred during the Uncontrolled Release was minor compared to that which typically occurs in autumn each year.

3.45 DEWHA recognises that there is a high level of natural annual variability in coral recruitment in the North West marine region. Scientific monitoring is designed to assess whether coral reefs are able to recover from any impact that may have occurred or if catastrophic failure of recruitment over subsequent spawning events can be expected.

**18. The DEWHA submission to the Inquiry reports a limited number of fauna deaths that can be connected to the oil spill. The Inquiry is interested in any views DEWHA may have as to whether these numbers accurately represent the level of fauna fatalities from the spill.**

3.46 It is unknown whether the numbers of fauna fatalities reported in DEWHA's submission to the Inquiry accurately represents the actual levels of fatalities from the spill. As outlined in DEWHA's first submission to the Inquiry, wildlife monitoring included:

- daily aerial surveillance by trained wildlife observers;
- daily survey of Ashmore Reserve by Customs officers stationed there;
- aerial surveillance of region by wildlife response expert on 31 August 2009;
- on-ground survey of Ashmore and Cartier Reserves between 8 and 13 September 2009;
- wildlife response officer stationed at Ashmore Reserve between 8 September 2009 and 5 December 2009;
- rapid assessment of the impacts of the Montara oil leak on birds, cetaceans and marine reptiles between 25 September 2009 and 4 October 2009;
- shoreline assessment survey of Ashmore and Cartier Reserves and Hibernia Reef between 21 and 25 October 2009;
- survey of Browse Island on 14 November 2009; and
- daily vessel surveillance of the region with all wildlife sightings reported.

3.47 Scientific monitoring study S6 is designed to observe and if possible quantify actual exposure of fauna, flora, habitats or communities to oil and their post-impact status. The study will also attempt to quantify

recovery from any harmful effects of oil impact on fauna in the subject area. To date, this study has been triggered for sea snakes, marine turtles, sea birds and corals.

- 3.48 DEWHA expects that these studies will provide a clearer picture of the impact of the spill on fauna populations in the area.

**19. Whether DEWHA is undertaking any monitoring of the impact of the spill on commercial and traditional fishers.**

- 3.49 The Monitoring Plan agreed between DEWHA and PTTEPAA describes two scientific monitoring studies that are designed to assess the impacts of the oil spill on Timor sea fish and fisheries:

- study 3 (S3) - Assessment of Fish Catch for the Presence of Oil; and
- study 4 (S4) - Assessment of Effects on Timor Sea Fish and Fisheries.

The design of these studies involved extensive consultation with relevant Commonwealth, state and territory fisheries agencies. Both studies have been triggered, and DEWHA has responsibility for approving the design and scope of proposals for these studies.

- 3.50 A proposal for the assessment of Fish Catch for the Presence of Oil (study S3) was approved on 10 December 2009. Field work was conducted in January 2010 following postponement due to Tropical Cyclone Laurence. DEWHA expects the report from this study in March/April 2010.
- 3.51 Assessments of the Effects on Timor Sea Fish and Fisheries have been triggered for during-response and post-response assessments. Fieldwork for during-response assessments was conducted between 6 and 19 November. The Department expects to receive the report in March 2010. Field work for post-response assessments is expected to be conducted in February 2010.
- 3.52 DEWHA expects that long-term monitoring of the effects on Timor Sea Fish and Fisheries will include further assessments of the effects of the Uncontrolled Release on commercially important fish species and stocks. DEWHA notes that the agreed environmental monitoring plan is designed to identify impacts to biodiversity and the environment, it is not designed to identify socio-economic impact.

**20. Whether, and if so how, DEWHA is seeking to improve the quality of marine baseline information in the Timor Sea.**

- 3.53 DEWHA is in the process of completing Marine Bioregional Planning in Australia's marine jurisdiction, including in the Timor Sea. Marine Bioregional Plans will provide a framework within which Australia can progress the implementation of an ecosystem-based approach to marine management. Marine bioregional plans will provide guidance to government and industry so as to better ensure the ecological sustainable use of marine resources. The focus of marine bioregional planning is on biodiversity conservation.
- 3.54 For the purposes of marine planning, Australia's marine jurisdiction adjacent to the continent has been divided into five marine regions (Attachment D). The Timor Sea straddles both the North and North-west Marine Regions.
- 3.55 Through the marine bioregional planning process, conservation values, conservation priorities and indicators of marine ecosystem health are being identified in each marine region. Conservation values comprise species protected under Commonwealth legislation as well as key ecological features. Key ecological features can be broadly defined as those biophysical features that play a crucial role in the maintenance of natural marine systems at the regional scale. The waters surrounding Ashmore Reef and Cartier Island, for example, have been identified as a key ecological feature of the North-west marine region because they are areas of enhanced localised biological productivity in relatively unproductive waters resulting in the presence of relatively high biodiversity, including feeding and breeding aggregations.
- 3.56 DEWHA has also been working with scientists to identify areas of importance for the life cycles of protected species in each marine region. Termed, biologically important areas, these are areas associated in particular with breeding and feeding.
- 3.57 Conservation priorities are being identified through an assessment of the risks to conservation values in each region. These priorities will inform future government investment and assist the DEWHA to better target its activities in each marine region, including in addressing important gaps in information and understanding.
- 3.58 DEWHA is working with CSIRO to develop a national set of regionally-relevant indicators of marine ecosystem health. These indicators will monitor a number of key ecological features in each region and are based on our understanding of the biophysical processes underpinning these features. The indicators developed through marine bioregional planning should enable DEWHA to monitor significant changes in the health of the marine environment.
- 3.59 The first step in the marine bioregional planning process was the collation and analysis of available biophysical and socio-economic information to produce a Bioregional Profile of each region. These

profiles provide the information base underpinning the planning process and are assisting DEWHA to identify key gaps in knowledge base.

- 3.60 The assessment and approval process under the EPBC Act provides a mechanism for gathering baseline information relevant to individual projects. This information is traditionally aimed at informing the decision whether or not to approve a project. It has not been sought for the specific purpose of providing a baseline for measuring the degree of impact of an oil spill. One possible option would be to require project proponents to gather baseline information to also meet this goal. As discussed in 3.6 above this approach would require consideration of a number of practical factors, including monitoring of control sites, in addition to sites in the project footprint to determine if environmental change can be attributed to the project.

## PERCEPTIONS OF CONFLICT OF INTEREST

**21. The Monitoring Plan is strongly tied to the continued engagement of PTTEPAA. In particular, the scope and timing of studies, and the production of any results are to be submitted directly to PTTEPAA for approval prior to going to DEWHA for review. The Inquiry is interested in any views that DEWHA may have on this aspect of the Monitoring Plan.**

- 3.61 To ensure that the environmental impacts of the spill are identified and addressed now and in the long-term, DEWHA has worked in conjunction with PTTEPAA and AMSA on developing and implementing robust operational and long-term scientific monitoring of the environmental impacts on the Uncontrolled Release.
- 3.62 Long-term monitoring studies rely on specified criteria being reached to trigger activation. Once triggered detailed proposals are sought by PTTEPAA and provided to DEWHA for approval. These proposals are peer-reviewed by experts from a TAG consisting of representatives from AIMS, CSIRO and relevant state and territory agencies. Responsibility for the implementation of each study will be assigned to a qualified, independent expert approved by DEWHA following peer-review by members of the Technical Advisory Group.
- 3.63 Once approved the implementation of each study is managed by PTTEPAA and a final report is provided to DEWHA following the conclusion of each study. DEWHA notes AIMS's recommendation to the inquiry that finalised study proposals should be provided to the Technical Advisory Group. This will occur.
- 3.64 DEWHA recognises that there may be a perception of risk to the monitoring plan by virtue of its funding being dependent on the continuing support of PTTEPAA. The processes for triggering,

conducting and finalising the scientific studies under the monitoring plan have been addressed elsewhere in this submission. DEWHA is confident there is a low risk to the monitoring plan under existing funding arrangements given the continuing interests of PTTEPAA in Australia. DEWHA believes the monitoring plan and funding for it were the best outcome achievable given the absence of resourcing for DEWHA to conduct such a study independently, the absence of legislative arrangements to enforce post-spill environmental monitoring, and the absence of effective cost-recovery mechanisms under the National Plan.

- 3.65 DEWHA notes that the peer-review processes implemented during the development of the monitoring plan, prior to the approval of triggered scientific monitoring studies and prior to DEWHA's acceptance of scientific monitoring study results/reports as well as the public release of reports are intended to minimise the risk of conflict of interests and/or misreporting of findings. DEWHA notes the peer-review process prior to the approval of triggered scientific monitoring includes peer-review of the study and the expert to ensure robust monitoring by appropriately independent and qualified experts is conducted. DEWHA also notes that a list of independent experts in a range of fields forms an attachment to the MoU through which the monitoring plan was agreed. This list was formed through collective input by AIMS, CSIRO and relevant states and territories and is designed to provide PTTEPAA with recommendations on independent experts that can be approached with requests for proposals for implementing scientific monitoring.

**22. Some submissions received by the Inquiry have indicated concern that there could be a perception of a conflict of interest in relation to both the preparation of the Monitoring Plan and the conduct of studies under it by Wardrop Consulting. The Inquiry is therefore interested in DEWHA's views on this aspect of the Monitoring Plan.**

- 3.66 DEWHA considered perceived or actual conflict of interest internally in relation to PTTEPAA and AMSA's engagement of Wardrop Consulting. As a consequence of these considerations, and to address the potential for a perceived conflict of interest more broadly throughout the preparation and implementation of the Monitoring Plan, DEWHA established a Technical Advisory Group, representing advice from AIMS, CSIRO and the WA and NT ESCs, to provide advice on the scientific rigour of the Monitoring Plan and each scientific monitoring study under it.
- 3.67 Operational monitoring was managed by AMSA and DEWHA did not have a role in approving the independence or qualifications of those who undertook operational monitoring studies.
- 3.68 Individuals conducting scientific monitoring studies are approved by DEWHA on the basis of their recognised expertise and independence during the proposal peer-review process. To date, Wardrop Consulting

has not submitted a proposal to conduct any Scientific Monitoring studies; however if any proposals are received from PTTEPAA with Wardrop Consulting assigned as the expert to implement the study they will be reviewed against the specifications stated in the Monitoring Plan.

## Part D – Attachments

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A. Environmentally sensitive habitats and species information provided to AMSA on 25 August 2009
B. Correspondence confirming DEWHA's appointment as ESC CONFIDENTIAL
C. Net Environmental Benefit Analysis advice provided to AMSA on 29 September 2009
D. Map of Australia's marine regions