Dear Mr Rogers

NOTICE UNDER SECTION 39A(3)
Environmental Protection Act 1986

PROPOSAL: Torosa Subsea Development Proposal
LOCATION: 425 km North of Broome
PROPOSENT: Woodside Energy
DECISION: Not Assessed: Public Advice Given

The Environmental Protection Authority (EPA) understands that you wish to undertake the above proposal which has been referred to the EPA for consideration of its potential environmental impact.

This proposal raises a number of environmental issues. However, the overall environmental impact of the proposal is not so significant as to require assessment by the EPA, and the subsequent setting of formal conditions by the Minister for Environment under Part IV of the Environmental Protection Act 1986. Accordingly, the EPA has determined not to assess this proposal.

Nevertheless, the staff of the Office of the EPA has provided the attached advice to you as the proponent, and other relevant authorities, on the environmental aspects of the proposal.

The EPA's decision to not assess the proposal is open to appeal. There is a 14-day period, closing 3 March 2015, during which, on payment of the appeal fee, an appellant may ask the Minister to consider directing the EPA to reconsider this decision or conduct a formal assessment.
Information on the outcome of the appeals process is available through the Appeals Convenor's website, www.appealsconvenor.wa.gov.au, or by telephoning 6467 5190 after the closing date of appeals.

Yours sincerely

[Signature]

Anthony Sutton
Director
Assessment and Compliance Division

For the Chairman of the Environmental Protection Authority
Under Notice of Delegation No. 33 dated 6 December 2013

16 February 2015

Encl: Public Advice
PUBLIC ADVICE UNDER SECTION 39A(7)
ENVIRONMENTAL PROTECTION ACT 1986

TOROSA SUBSEA DEVELOPMENT

Summary

Woodside Energy Limited proposes to develop approximately 17 wells from three drill centres on the sea bed near Scott Reef. The proposal includes supporting subsea infrastructure, including wellheads, manifolds, flowlines and umbilicals. The drill centres and associated infrastructure are proposed to be located in water greater than 350 metres deep, with two of the drill centres between North and South Scott Reef and one north east of North Scott Reef. Scott Reef is located approximately 425 kilometres north of Broome and 290 km off the Kimberley coast.

Due to the subsea nature of the proposal components, surface-based activities will only occur during the drilling, installation, commissioning and decommissioning phases. For the majority of the proposal's anticipated 40 to 50 year operational life, only periodic vessel-based monitoring and maintenance activities will be required. Maintenance activities and associated vessel movements associated with operations are expected to be as little as one or two times a year.

The proposal was advertised for public comment and the Environmental Protection Authority (EPA) notes that no public comments were received.

The EPA has considered the proposal in accordance with the requirements of the Environmental Protection Act 1986 EP Act and the Environmental Impact Assessment Administrative Procedures 2012. In making its decision on whether to assess the proposal, the OEPA considered the 10 principles of the significance test in clause 7 of the Environmental Impact Assessment Administrative Procedures 2012:

1. values, sensitivity and quality of the environment which is likely to be impacted;
2. extent (intensity, duration, magnitude and geographic footprint) of the likely impacts;
3. consequence of the likely impacts (or change);
4. resilience of the environment to cope with the impacts or change;
5. cumulative impacts with other projects;
6. level of confidence in the prediction of impacts and the success of proposed mitigation;
7. objects of the Act, polices, guidelines, procedures and standards against which a proposal can be assessed;
8. presence of strategic planning policy framework;
9. presence of other statutory decision-making processes which regulate the mitigation of the potential effects on the environment to meet the EPA’s objectives and principles for EIA; and
10. public concern about the likely effects of the proposal, if implemented, on the environment.
In considering the potential impacts of the Torosa Subsea Development on Marine Fauna, Marine Environmental Quality and Benthic Communities and Habitat, the EPA has had particular regard to:

- the high environmental values, but relatively small scale impacts of planned activities, small geographic footprint and relatively short duration of higher intensity activities being limited to the construction and decommissioning phases;
- the substantial amount of work undertaken by the proponent to characterise the environment at Scott Reef and help reduce uncertainty in predicted impacts;
- the low probability of oil spills and low cumulative impacts; and
- the mitigation strategies proposed by the proponent to avoid and minimise impacts, for example:
  - speed limits to reduce risk of vessel strikes to marine fauna
  - implementation of a recognised IMS management plan to reduce the risk of IMS
  - discharge of planned wastes to deeper water and oil spill contingency measures
- the presence of other statutory processes including the Commonwealth’s assessment.

As such, overall, the EPA’s objectives for Marine Fauna, Benthic Communities and Habitat, and Marine Environmental Quality can be met because of the limited extent of the proposal in terms of the scale, duration, geographic footprint, and cumulative impact, and the relatively high level of confidence in predicted impacts and proposed mitigation measures. As a result, the EPA considers that the likely environmental effects of the proposal are not so significant as to warrant formal assessment. In addition, the EPA is also of the view that these potential impacts can be effectively mitigated, managed and regulated through other statutory processes.

The EPA’s advice and recommendations, including the likely significance of the impacts, on the environmental factors of marine fauna, benthic communities and habitat and marine environmental quality are discussed in more detail below.

The proposal is a component of the Browse FLNG Development, which is located predominantly in Commonwealth waters. The Browse FLNG Development is undergoing formal assessment under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Owing to a change in the maritime boundaries at Scott Reef, the Torosa Subsea Development is now in State waters, whereas previously only a small portion of the development was in State waters. The floating processing, storage and ship loading facilities remain in Commonwealth waters. The Commonwealth assessment process will also consider the indirect impacts of the proposal on State waters.
1. Environmental Factors

The EPA has identified the following preliminary environmental factors relevant to this proposal:

a) Marine fauna;

b) Marine environmental quality; and

c) Benthic communities and habitat.

There were no factors that were determined to be key environmental factors that would require formal assessment under Part IV of the EP Act. The EPA considers that the mitigation of the potential effects on the environment can be regulated by other statutory decision-making processes and through the implementation of proponent commitments and best practice measures in accordance with this advice.

2. Advice and Recommendations regarding Environmental Issues

The EPA notes that the proposal has been designed to avoid impacts to Scott Reef, particularly siting the infrastructure away from the shallow lagoon areas of the reef that have a very high environmental value.

The EPA also notes that the proposal is part of the Browse FLNG Development which the Commonwealth Department of the Environment (DotE) considers to be a controlled action requiring formal assessment under the EPBC Act. To view the DotE notification of referral decision EPBC 2013/7079 visit www.environment.gov.au. Other documentation associated with the Commonwealth assessment of the proposal is also available at this website. The relevant controlling provisions are:

- Listed threatened species and communities (section 18 and 18A)
- Listed migratory species (section 20 and 20A)
- Commonwealth marine areas (section 23 and 24A).

The environmental impact statement guidelines for the proposal state that the Commonwealth marine area requires a 'whole of environment' assessment, including assessment of the environment of State waters impacted by the proposal.

The proponent has prepared a draft environmental impact statement for the Commonwealth assessment of the proposal. The draft Environmental Impact Statement (EIS) provides further detail about the management measures proposed for the Torosa Subsea Development, as part of the Browse FLNG Development. The management measures that are proposed for the Browse FLNG Development in the draft EIS are proposed to be used for the Torosa Subsea Development.

a. Marine fauna

The proposal may impact on conservation significant marine fauna that utilise habitat at Scott Reef. The species with the greatest potential to be impacted are: the green turtle, which is known to use Scott Reef for nesting, and pygmy blue whales which have been recorded in the area. The Department of Parks and Wildlife also noted that there was potential to impact threatened species of sea snakes and avian fauna. The importance of Scott Reef for flora and fauna is recognised in the classification as
a nature reserve over South Scott Reef down to the low mean water mark, including Sandy Islet.

The Department of Parks and Wildlife made a number of recommendations in relating to the management of the proposal to minimise the potential impacts to marine fauna, including:

- management commitments to minimise impacts from noise within deep channels should be made, particularly noise levels which would disturb large whales utilising deep channel areas of Scott Reef;
- proposed emission footprints and focal points for vessel activity should present the lowest possible risk to pygmy blue whales migration routes;
- project design and operational management frameworks should minimise the risk of bird attraction and disorientation; and
- the proponent’s proposed management and monitoring should ensure protection of sea snakes, as little is known about threatened sea snakes at Scott Reef.

The EPA supports these recommendations and the EPA also recommends that the proponent utilise best practice lighting design for this proposal to minimise impacts to marine turtles.

The EPA notes that the proposed management measures related to invasive marine species are the same as those contained in the Invasive Marine Species Management Plan that is approved under Ministerial Statement 757 for Woodside’s Pluto LNG Development. The EPA expects the proponent to continue to liaise with key stakeholders, including the Department of Fisheries in the management of the project to prevent the introduction of invasive marine species.

The EPA considers that the proposal, if implemented consistent with the Referral of the Torosa Subsea Development Proposal under s38 of the Environmental Protection Act document (1 December 2014) can be managed to meet the EPA’s objective for marine fauna.

b. Marine environmental quality

As Scott Reef is in a remote location, water and sediment quality has had limited anthropogenic inputs and is considered to be unpolluted. The water in the area does have periods of naturally high turbidity following cyclones.

Scott Reef is an important and complex ecosystem which has significant conservation values, including turtle nesting habitat for green turtles and resting and staging habitat for migratory birds at Sandy Islet. The main potential impacts from the Torosa Subsea Development are from planned waste discharges during construction, including drill cuttings and fluids and hydrotest fluid, or from unplanned hydrocarbon leaks/spills. There is potential for wide ranging and significant environmental impacts on Scott Reef from this proposal should a large scale unplanned hydrocarbon spill occur. As Woodside acknowledges in its referral documentation, unplanned events are an inherent risk in the oil and gas industry. The time taken for Scott Reef to recover could be in the order of decades should one occur. A well blow out during drilling of the closest drill centre to the reef is the highest risk activity associated with the proposal, however such an event is unlikely.
Woodside has a well-developed management system in place, designed to reduce the risk of unplanned events to very low levels. This management system will be implemented at all stages of the proposal and include well-proven and fail safe systems to prevent well blow outs and is stringently regulated by DMP and National Offshore Petroleum Safety and Environmental Management Authority.

State and Commonwealth legislation also has requirements related to managing oil spills, including the need for an oil spill contingency plan to accompany the environment plan required by DMP under the Petroleum (Submerged Lands) Act 1982 and associated Petroleum (Submerged Lands) (Environment) Regulations 2012. The EPA notes that the development of an oil spill contingency plan to the satisfaction of the DMP is a requirement of the approvals for the Torosa Subsea Development.

In accordance with the National Water Quality Management Strategy and the EPA’s environmental quality management framework for protecting the quality of WA’s marine environment (Environmental Assessment Guideline No. 15 - in prep), the EPA expects the proponent and other regulators to recognise and protect the Environmental Values of Ecosystem Health, Fishing and Aquaculture and Recreation and Aesthetics within all State waters that could be affected by activities associated with this proposed development. In recognition of the unpolluted nature and exceptional natural values of the reef and surrounding waters, the EPA expects that for Ecosystem Health, a ‘maximum’ level of ecological protection should apply to all state waters potentially affected by the proposed development.

The EPA’s view is that untreated hydrotest water should not be discharged in State waters, where water is shallower. The preference is for hydrotest water to be discharged in deeper water and managed to meet the EPA’s Environmental Quality Objectives and associated level of ecological protection.

The EPA considers that potential impacts to marine environmental quality can be regulated and mitigated by other regulatory processes to meet the EPA’s objective.

c. Benthic communities and habitat

The proposal involves the direct disturbance of up to 8 hectares of the seabed. There may be some indirect impacts as sediments become suspended following disturbance and then resettle elsewhere, however given the coarse nature of the material to be disturbed it is expected to resettle rapidly close to the area of disturbance.

Scott Reef itself has a diverse range of benthic communities. The proposed disturbance is in the channel/passage between South and North Scott Reef at a depth of 350 metres. The seabed comprises cobble/rubble, shell fragments and soft sediments. Proponent information indicates that no seagrasses and limited macroalgae occur due to the water depth and if corals are found they are likely to be restricted to scattered isolated individuals, as is the case for sponges.

Given the small extent of disturbance to the seabed and limited nature of benthic communities that will be disturbed, the EPA considers that the proposal is not likely to have a significant impact on this factor and can be managed to meet the EPA’s objective.