

Memorandum

To: Siobhan Quayle, Group General Manager, Regulatory Systems and Operations

Copy to: Sandra Balcombe, Acting Manager, Land & Oceans Applications
Michael Allan, Senior Solicitor, Legal

From: Ben Moginie, Senior Advisor, Land & Oceans Applications

Date: 22 April 2020

Subject: Recommendation and record of decision for Ruling request EEZ500029

Purpose

1. To seek your approval to provide Ruling EEZ500029 for restricted activities involved in Activity 2 as described in Appendix 1, to note that Activities 1 and 8 do not require a ruling to be undertaken, and not to provide a ruling for restricted activities involved in Activities 3 and 5.

Recommendations

2. That you:

| | |
|----|--|
| a. | Provide Ruling EEZ500029 for restricted activities involved in Activity 2 as described in Appendix 1. |
| b. | Do not provide a ruling for restricted activities involved in Activities 3 and 5 (noting that Activities 1 and 8 do not require a ruling to be undertaken). |

Delegation

3. The decision to provide the Ruling EEZ500029 under s 162(2) of the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act) is within your statutory delegation from the Chief Executive of the EPA.

Ruling legislation

4. Section 162 of the EEZ Act allows an operator to continue with existing activities involving structures or pipelines which would otherwise require a marine consent as a result of s 20 of the EEZ Act coming into force. These existing activities may continue without a marine consent for the term of the relevant petroleum mining permit or privilege under the Crown Minerals Act 1991.
5. However, if operators wish to undertake activities described in s 162(3) of the EEZ Act that have an adverse effect on the environment or existing interests, they need to request a ruling from the EPA. Activities described in s 162(3) include:

- a. any activity that is part of the existing activity, such as placing a structure or drilling a well, that had not commenced before this Act comes into force,
 - b. any change in the character, intensity, or scale of the activity made on or after the date on which this Act comes into force, or
 - c. the alteration, extension, removal, or demolition of an existing structure or existing submarine pipeline associated with the activity.
6. A ruling can only be provided if the EPA determines the adverse effects of proposed activities on the environment and existing interests are likely to be minor or less than minor.

Summary of request

7. On 18 February 2020, BW Offshore Limited (BWO) submitted a request for a ruling. This was supplemented by further information listed in Appendix 4. The activities for which BWO are seeking a ruling to undertake are described in Table 1.
8. This ruling request relates to the disconnection of subsea equipment (SSE) from the offshore installation the Floating Production Storage and Offtake (FPSO) facility Umuroa and its placement on the seabed. Ultimately, this is to enable the FPSO Umuroa to sail away from its moored location in the Tui Field within PMP 38158, approximately 50 kilometres off the coast of Taranaki. The ruling request does not cover the full scope of activities that would be required to enable the FPSO Umuroa to sail away. The other activities that are required to enable the FPSO Umuroa to sail away involving the temporary placement and retrieval of the mooring lines and anchors connected to the FPSO Umuroa have been authorised by ruling EEZ500028 provided by EPA on 27 March 2020.
9. The FPSO Umuroa is connected to the Subsea Umbilical Riser and Flowline (SURF) system. This infrastructure lies in approximately 100 - 130 m of water. BWO states that it intends to leave the Tui Field in a state that would allow another FPSO to reconnect to the existing subsea infrastructure that is owned and operated by Tamarind Taranaki Limited (in Receivership and Liquidation) (Tamarind)¹.
10. The Impact Assessment (IA) provided with the ruling request describes eight (8) activities required to mobilise the FPSO². Five (5) of these activities are the subject of this ruling request, as indicated below:
- a. **Activity 1:** FPSO Preparation and demobilisation preparatory works,
 - b. **Activity 2:** Surveys and Inspections (Diver and ROV operations),
 - c. **Activity 3:** Disconnection – Subsea equipment (SSE),
 - d. **Activity 4:** Not included in this request: Disconnection – Mooring systems,
 - e. **Activity 5:** Subsea equipment temporary placement on seabed,
 - f. **Activity 6:** Not included in this request: Mooring lines retrieval,
 - g. **Activity 7:** Not included in this request: Anchor temporary placement on seabed and retrieval,
 - h. **Activity 8:** FPSO sail away.

¹ Page 12 of Part 1 of the IA.

² Ruling completeness tool, and part 1 of the IA.

11. Activities 1, 2, 4, 6, 7, and 8 were considered under Ruling request EEZ500028. A ruling was provided to BWO for Activities 4, 6, 7, and Activity 2 as it applied to Activities 4, 6 and 7 (i.e., the disconnection of the *mooring lines*). Activities 1 and 8 did not require authorisation to be undertaken.
12. For this Ruling, Activities 1 and 8 are exactly the same as those considered under EEZ500028. However, Activity 2 is considered as it applies to Activities 3 and 5 (i.e., the disconnection of the *risers* from the FPSO) and therefore as a different activity to what was considered under EEZ500028. Activities 3 and 5 are were not considered under EEZ500028.
13. Table 1 identifies which of the activities subject to this ruling request involve activities that are restricted by s 20 of the EEZ Act.

Table 1: The s 20(2) restricted activities in the EEZ Act that apply to each proposed activity

| Relevant s 20 restricted activities of EEZ Act | Activity 1 FPSO preparation and demobilisation preparatory works | Activity 2 Surveys and Inspections (Diver and ROV operations) | Activity 3 Disconnection – Subsea equipment (SSE) | Activity 5 Subsea equipment placement on seabed | Activity 8 FPSO sail away |
|---|---|--|---|--|-------------------------------------|
| 2(a) the construction, placement, alteration, extension, removal, or demolition of a structure on or under the seabed | Alteration of the FPSO Umuroa structure (e.g., removal of rudder guards, installation of equipment) | | Alteration of SURF system by disconnection from the Umuroa | | |
| 2(b) the construction, placement, alteration, extension, removal, or demolition of a submarine pipeline on or under the seabed | | Alteration of the SURF system by Divers splitting I-Tube bottom flanges, and tethering of SURF system by ROV | Alteration of flowlines and gas lift lines by disconnection from the Umuroa | Placement of the flowlines and gaslift lines on the seabed | |
| 2(c) the placement, alteration, extension, or removal of a submarine cable on or from the seabed | | Alteration of the SURF system by Divers splitting I-Tube bottom flanges, and tethering of SURF system by ROV | Alteration of umbilical lines disconnection from the Umuroa | Placement of the umbilicals on the seabed | |
| 2(d) the removal of non-living natural material from the seabed or subsoil | | | | | |
| 2(e) the disturbance of the seabed or subsoil in a manner that is likely to have an adverse effect on the seabed or subsoil | | Triggered by ROV operations that may disturb seabed | | Placement of the SURF system on the seabed | |
| 2(f) the deposit of anything or organism in, on, or under the seabed | | | | Placement of the SURF system on the seabed | |

| | | | | | |
|---|---|---|---|---|--|
| <p>2(g) the destruction, damage, or disturbance of the seabed or subsoil in a manner that is likely to have an adverse effect on marine species or their habitat</p> | | <p>Triggered by ROV disturbance of seabed</p> | | <p>Placement of the SURF system on the seabed</p> | |
| <p>4(a) the construction, mooring or anchoring long-term, placement, alteration, extension, removal, or demolition of a structure or part of a structure</p> | <p>Alteration of the FPSO Umuroa structure by the installation of equipment and removal of rudder guard</p> | | <p>Alteration of SURF systems disconnection from the Umuroa</p> | | |
| <p>4(b) the causing of vibrations (other than vibrations caused by the normal operation of a ship) in a manner that is likely to have an adverse effect on marine life</p> | | <p>Triggered by ROV operations</p> | | | |
| <p>4(c) the causing of an explosion</p> | | | | | |

Applicability of activities for a ruling

14. In order for the EPA to provide a ruling it must be satisfied that the statutory criteria under s 162 of the Act are met. As summarised in the Guidance to Operators³, a ruling can only be provided for a proposed existing activity if first that activity:
 - a. is restricted by s 20 of the EEZ Act,
 - b. is associated with a Petroleum Mining Permit,
 - c. is captured under s 162(3) of the EEZ Act, and
 - d. has adverse effects.
15. If an activity satisfies (a) – (d) above, the EPA can only provide a ruling if adverse effects on the environment and existing interests are likely to be minor or less than minor.
16. I provide a description of the proposed activities and an analysis against the matters listed under paragraph 13 below. I note that each of proposed activities below involve an existing structure (the Umuroa) and are associated with Petroleum Mining Permit (PMP) 38158. Therefore, I have not discussed this requirement in more detail below. A summary of the classification of each activity for a ruling under s 162 is summarised in Table 2.

Activity 1:

Summary of analysis for Activity 1

17. Activity 1 does not require a ruling to be undertaken because it is an existing activity that will not have any adverse effect on the environment or existing interests.
18. I came to the same conclusion in assessing ruling EEZ500028, however, for ease of reference I set out the reasons here and I confirm these also apply for this ruling with the same result.

Is the activity restricted by s 20 of the EEZ Act?

19. Section 5.2.1 of Part 1 of the IA describes the wider preparatory works to be undertaken aboard the FPSO Umuroa to ready it for demobilisation. This includes installation of equipment required for sealing caps of production assets, and installation of specialist equipment for lifting, diving, and disconnection operations. Based on the description of activities in Part 1 of the IA, I consider these activities are restricted by s 20(2)(a) and 20(4)(b) of the EEZ Act (see Table 1).
20. A number of activities will take place as a necessary consequence of restricted activities that are proposed to be carried out as part of the wider disconnection programme of work. For example, there will be increased vessel traffic in the Tui Field. I have therefore considered the effects of these wider but necessary activities to ensure that all consequential effects of the restricted activities are considered (Appendix 3).

³ Page 10 of the Guidance for existing petroleum mining operators – Rulings under 162 dated June 2015.

Is the activity captured under s 162(3) of the EEZ Act?

21. I consider the installation of equipment on the Umuroa to be an activity that had not commenced before the EEZ Act came into force under s 162(3)(a) and the alteration of an existing structure under s 162(3)(c).

Does the activity have adverse effects on the environment or existing interests?

22. I do not consider there will be any adverse effects on the environment or existing interests from the proposed activities. However, I consider the largest unplanned potential effects on the environment and existing interests from Activity 1 to be failures to perform the preparatory activities adequately (i.e., the removal of rudder guards, the correct installation of equipment) and the subsequent risk of oil spillage or equipment failure.
23. I note that the modifications relating to the installation of equipment on the FPSO are undertaken on-board the FPSO, not in the marine environment and are not at a scale to pose any risk to seabirds. The diving work is unlikely to cause adverse effects on marine life due to the short duration, limited scale, and limited intensity of operations.
24. In section 2.5.2.1 of Part 2 of the IA, BWO identified several measures are in place to mitigate the aforementioned risks, including:
- a. Ballast water management,
 - b. Emergency and/or Oil Spill Containment Plan,
 - c. An Emergency Management Plan,
 - d. An HSE Management System,
 - e. Use of certified equipment,
 - f. Use of trained and competent personnel / contractors, and
 - g. Insurance coverage.
25. I consider the mitigation measures proposed by BWO to reduce the risk of equipment installation failures and spills that could result in adverse effects are sufficient to ensure that there will not be any adverse effect on the environment or existing interests from planned activities. Therefore, I consider Activity 1 will not require a ruling so long as it is carried out as described in the impact assessment documents (including the above mitigation measures).

Activity 2:

Summary of analysis for Activity 2

26. Diving activities proposed by BWO as a part of Activity 2 will not require a ruling as they will not have any adverse effect on the environment or existing interests.
27. I consider that the ROV activities proposed by BWO as a part of Activity 2 involve s 20 restricted activities and therefore require a ruling (as requested by BWO) or other lawful authority under the EEZ Act in order to be undertaken.
28. The use of ROV's under Activity 2 was assessed under Ruling EEZ500028 as it applies to proposed Activities 4, 6, and 7 (i.e., the disconnection of the mooring lines). However, this assessment relates to the use of ROV's in relation to Activities 3 and 5 (i.e., the disconnection of the risers). Therefore, I have considered restricted activities contained in ss 20(2)(b) and (c) which were not assessed and

authorised by EEZ500028 but apply for this ruling due to the proposed alteration of submarine pipelines and cables.

Diver operations

Is the activity restricted by s 20 of the EEZ Act?

29. Section 5.2.2 of Part 1 of the IA describes the use of ROV's and divers to undertake pre-start installation surveys and inspections. BWO state this activity covers the use of ROV's and divers that may be involved throughout different stages of the disconnection process⁴.
30. BWO refer to the descriptions of diving operations that was provided by Tamarind Taranaki Limited (Tamarind) in its request for ruling EEZ500022. Tamarind stated in 2017 that air diving operations have been undertaken four (4) times since the FPSO has been in service (2010, 2012, 2014, and 2016)⁵. Tamarind note that typically divers undertake inspections of the sea chests, rudder, propeller, hull welds and mooring system of the FPSO, as well as hull cleaning. BWO state the divers will only operate down to 20m in depth.
31. BWO describe the specific diving activities throughout the description of activities in the IA⁶. These include splitting the I-Tube bottom flange bolt to enable disconnection of the risers and rigging wires to the risers to facilitate the pull-in of the Subsea Umbilical Riser and Flowline (SURF) systems. I consider these activities are restricted under s 20 of the EEZ Act (Table 1).

Is the activity captured under s 162(3) of the EEZ Act?

32. I consider splitting of the I-Tube bolts and tethering of the risers is the alteration of an existing pipeline under s 162(3)(c) of the EEZ Act.

Does the activity have adverse effects on the environment or existing interests?

33. Based on the descriptions of the activities provided by BWO, I do not consider there will be any adverse effects on the environment or existing interests from the proposed diving activities that are a part of Activity 2.

ROV surveys

Is the activity restricted by s 20 of the EEZ Act?

34. In addition to the use of divers, BWO are proposing to deploy ROV's for multiple purposes during the disconnection process. These purposes include:
- a. Pre and post inspection surveys, where the ROV will inspected the SURF and mooring system before disconnection and after laying on the seabed, and
 - b. Physical disconnection of the rigging, slings/strops from flowlines, umbilicals and mooring lines.
35. I consider these activities are restricted under s 20 of the EEZ Act (Table 1).

⁴ Page 55 of Part 1 of the IA.

⁵ Email correspondence from Tamarind dated 19 September 2017 (EEZ500022).

⁶ Section 5 of Part 1 of the IA.

36. I note that BWO's IA is inconsistent as to whether the use of ROV's for severing the 12 risers forms part of Activity 2⁷ or part of Activity 3⁸. For the purposes of this assessment I consider it to be part of Activity 3.

Is the activity captured under s 162(3) of the EEZ Act?

37. ROV inspection surveys of the subsea equipment are part of an ongoing activity which has been undertaken on six previous occasions (2010, 2011, 2013, 2014, 2015, 2018)⁹, since the FPSO began service in 2007. During these routine inspections the ROV inspected the production & gas lift lines, umbilicals and subsea trees (on the seafloor). Tamarind have also used an ROV to inspect the mooring lines for integrity of the chains on three previous occasions (2011, 2013 and 2017).

38. From the descriptions of the surveys provided in this ruling request I do not consider the ROV surveys are captured under s 162(3)(a) or (c). I consider the ROV surveys are not different in character, intensity or scale from the descriptions of routine maintenance under s 162(3)(b). I conclude that these survey activities do not require a ruling under s 162 of the EEZ Act¹⁰.

39. However, I consider that use of ROV's for connection and disconnection of the slings/strops do not constitute a routine maintenance activity as this activity does not fall in the scope of the descriptions of routine activities. Therefore, I consider this captured by s 162(3)(b).

Does the activity have adverse effects on the environment or existing interests?

40. I consider that there is likely to be some adverse effects on the environment or existing interests from the operation of the ROVs in carrying out restricted activities. Therefore, I consider this activity requires a ruling under s 162 of the EEZ Act (as requested by BWO) or other lawful authority under the EEZ Act in order to be undertaken.

Activity 3: Disconnection – Subsea equipment (SSE)

Summary of analysis for Activity 3

41. I consider this activity requires a ruling or other lawful authority under the EEZ Act to be undertaken. I note that restricted activities involved in Activity 3 were not considered under ruling request EEZ500028.

Is the activity restricted by s 20 of the EEZ Act?

42. In section 5.4 of Part 2 of the IA, BWO describes the disconnection of the SSE without flushing the risers or flowlines. Activity 3 includes:

- a. Severing the 12 risers by ROV.
- b. Divers disconnecting I-Tube bottom flange bolts and installing slings and wires,
- c. Pulling in the end of the riser up to the top-side of the FPSO,

⁷ Section 5.3.1 of Part 1 of the IA.

⁸ Table 5.1.2 of Part 1 of the IA.

⁹ Email from Tamarind to EPA dated 19 September 2017 (EEZ500022).

¹⁰ Section 162(2) provides that despite s 162(1), activities under s 162(1) are not authorised "where the activity has adverse effects on the environment or existing interests unless the Environmental Protection Authority provides a ruling to the effect that adverse effects are likely to be minor or less than minor".

- d. Capping the end of the risers,
- e. Lowering the riser to prepare for placement on the seabed.

43. Activity 3 includes activities restricted by s 20 of the EEZ Act (Table 1).

Is the activity captured under s 162(3) of the EEZ Act?

44. I consider the disconnection of the SSE constitutes an activity that had not commenced before the Act came into force under s 162(3)(a) and is an alteration of an existing structure under s 162(3)(c).

Does the activity have adverse effects on the environment or existing interests?

45. I consider that the disconnection activities may have adverse effects on the environment or existing interests due to the reasonably foreseeable future effects of well fluids in the reservoirs and the risers and entering the marine environment.

Activity 5: Subsea equipment placement on seabed

Summary of analysis for Activity 5

46. I consider this activity requires a ruling or other lawful authority under the EEZ Act to be undertaken. I note that restricted activities involved in Activity 5 were not considered under ruling request EEZ500028.

Is the activity restricted by s 20 of the EEZ Act?

47. Section 5.6 of Part 2 of the IA describes the temporary placement on the seabed of the risers that connect the wellheads and FPSO. BWO state this activity covers:

- a. The laydown of the risers on top of the seabed from Construction Support Vessel.
- b. Disconnection of winch from risers on seafloor by ROV.

48. Activity 5 includes activities restricted by s 20 of the EEZ Act (Table 1).

Is the activity captured under s 162(3) of the EEZ Act?

49. I consider the placement of the SSE constitutes an activity that had not commenced before the Act came into force under s 162(3)(a).

Does the activity have adverse effects on the environment or existing interests?

50. I consider that the disconnection activities may have adverse effects on the environment that arise from disturbance to the seabed.

Activity 8: FPSO sail away.

51. Section 5.7 of Part 1 of the IA describes the activities that form part of the proposed Activity 8 (FPSO Sail Away). No further information has been provided in this ruling request that has changed my view from that expressed in ruling EEZ500028. That is, I consider Activity 8 does not involve any restricted activities under s 20 of the EEZ Act (Table 1). I consider that this activity is not restricted under the EEZ Act and therefore does not require a ruling or other lawful authority under the EEZ Act to be provided by the EPA for it to be undertaken. However, I note that this Activity may cause adverse effects and these effects have been considered in my assessment.

Table 2 – Summary of the applicability of the proposed activities for a ruling under s 162 of the EEZ Act

| Activity | Which part of s 20 restricts activity? | Activity captured by s 162(1)? | Activity captured by s 162(3)? | Is there an adverse effect? |
|--|--|---|--|---|
| <u>Activity 1</u> FPSO preparation and demobilisation preparatory works | 20(2)(a) 20(4)(a) | Yes, the FPSO <i>Umuroa</i> is classified an existing structure associated with PMP 38158 | Yes, s 162(3)(a) and (c) The activities constitute the alteration of an existing structure | No, the proposed activity is not likely to have adverse effects. |
| <u>Activity 2</u> Surveys and Inspections (ROV operations) | 20(2)(b), 20(2)(c), 20(2)(e) 20(2)(g) 20(4)(b) | Yes, the FPSO <i>Umuroa</i> is classified an existing structure associated with PMP 38158 | Yes, s 162(3)(b) and (c) The ROV activities constitute the alteration of an existing structure and a change in the character of the activity. | Yes, there will be adverse effects on the environment or existing interests from these activities as described in Appendix 3. |
| <u>Activity 3</u> Disconnection – Subsea equipment (SSE) | 20(2)(a), 20(2)(b), 20(2)(c), 20(4)(a), | Yes, the FPSO <i>Umuroa</i> is classified an existing structure associated with PMP 38158 | Yes, s 162(3)(a) and (c) The activities constitute an activity that had not commenced before the act came into force and the alteration of an existing structure. | Yes, there will be adverse effects on the environment or existing interests from these activities as described in Appendix 3. |
| <u>Activity 5</u> Subsea equipment placement on seabed | 20(2)(b), 20(2)(c), 20(2)(e), 20(2)(f), 20(2)(g) | Yes, the FPSO <i>Umuroa</i> is classified an existing structure associated with PMP 38158 | Yes, s 162(3)(a) The activities constitute an activity that had not commenced before the act came into force | Yes, there will be adverse effects on the environment or existing interests from these activities as described in Appendix 3. |

Criteria for assessment of information adequacy and environmental effects

Evaluating information adequacy

52. While s 162 does not provide specific guidance as to how information is to be processed and evaluated, as an initial step, the Guidance to Operators¹¹ states the EPA will use s 39 of the EEZ Act (criteria for an impact assessment) to consider the adequacy of the information provided in the request.
53. The assessment against s 39 matters is addressed in Appendix 2 and I conclude that the information provided by BWO is in such detail as corresponds to the scale and significance of the effects that the activity may have on the environment and existing interests and is in sufficient detail to enable the EPA and persons whose existing interests are or may be affected to understand the nature of the activity and its effects on the environment and existing interests. I am also satisfied that BWO has made a reasonable effort to identify the matters described in ss 39(1)(c) to (f) and (2) to the extent they are relevant.

Criteria for assessing the effects of the activities on the environment and existing interests

54. A ruling can only be provided under s 162 if the EPA determines the adverse effects of the proposed activities on the environment or existing interests are likely to be minor or less than minor. While s 162 does not provide specific guidance as to how information is to be processed and evaluated, the Court of Appeal has recently provided guidance on the overall intent and scheme of the EEZ Act in the context of applications for Marine Consent and Marine Discharge Consents¹². The High Court has recently applied these principles to s 162 ruling requests¹³. The following statements of principle are equally applicable to the s 162 ruling process to the extent they are relevant on the basis that the restricted activities specified in s 20 (which give rise to the request for this Ruling) are the same as those under consideration in a marine consent process:
 - a. s 10(1) provides the criteria by reference to which an application is to be determined (and against which the factors in s 59 and 60 are to be assessed and weighed). Where both s 10(1)(a) and s 10(1)(b) are relevant, each must separately be addressed and achieved,¹⁴
 - b. s 10(1)(b) contains the environmental bottom line for protecting the environment from pollution caused by discharges of harmful substances. This statutory objective may be achieved only by regulating in a way that will avoid and prevent material pollution of the environment, or by prohibition. It is not consistent with s 10(1)(b) to permit marine discharges or marine dumping that will cause harm to the environment, on the basis that the harm will subsequently be remedied or mitigated,¹⁵

¹¹ Guidance for petroleum mining operators Rulings under section 162, June 2015.

¹² *Trans-Tasman Resources Limited v Taranaki-Whanganui Conservation Board* [2020] NZCA 86.

¹³ *Environmental Protection Authority v BW Offshore Singapore Pty Ltd* [2020] NZHC 704.

¹⁴ Court of Appeal decision, above n 12, at [32], [35], [83], [110].

¹⁵ Court of Appeal decision, above n 12, at [86], [89], [109], [118].

- c. the information principles in s 61 mean that if the lack of information and resulting uncertainty about the effects of a proposed activity mean that the EPA is left uncertain whether the s 10(1) objectives will be met if a consent is granted, then the information principles require the consent to be refused,¹⁶
- d. it is not open to the EPA to grant a consent for a marine discharge or marine dumping unless it is satisfied that the relevant activity is not likely to cause harm to the environment. If there is a real prospect of material pollution of the environment, a marine discharge or dumping consent should not be granted,¹⁷
- e. references to existing interests in s 59 must be read as including the interests of Māori in relation to all taonga referred to in the Treaty. This includes the customary interests that would be the basis for as yet unresolved claims under the Marine and Coastal Area (Takutai Moana) Act 2011, and customary rights and kaitiakitanga. It is therefore necessary for the EPA to squarely engage with the full range of customary rights, interests and activities identified by Māori as affected by the proposal,¹⁸
- f. the principles of the Treaty, including partnership and active protection, are relevant when assessing the effects of a proposal on existing interests protected by the Treaty, in the context of s 59. Those Treaty principles require at the very least that reasons be given to justify a decision to override existing interests of this kind, absent the free and informed consent of affected iwi. The adequacy of those reasons can then be assessed by reference to the assurances given by the Crown to Māori under the Treaty, and the express statement in s 12 of the EEZ Act that s 59 is intended to recognise and respect the Crown's responsibility to give effect to the principles of the Treaty,¹⁹
- g. Tikanga Māori is "applicable law" under s 59(2)(l), and the EPA must engage with those concepts as they are understood and applied by Māori,²⁰
- h. EPA is required to have regard to the nature and effect of any relevant marine management regime for the purposes of the EEZ Act, in particular, where the proposed activity would have effects within the territorial sea,²¹ EEZ or continental shelf that are inconsistent with environmental bottom lines and other objectives under the marine management regime.²²

55. I have reviewed the ruling request information provided by BWO and I have based the assessment of effects on the information provided in the ruling request information and further information received from BWO and other parties²³. I apply the above principles in my assessment of the proposed activities against s 10(1) of the Act, taking into account the s 59 and 60 factors and applying the s 61 information principles. This assessment is contained in Appendix 3 and my discussion below.

¹⁶ Court of Appeal decision, above n 12, at [128].

¹⁷ Court of Appeal decision, above n 12, at [89].

¹⁸ Court of Appeal decision, above n 12, at [163] to [170].

¹⁹ Court of Appeal decision, above n 12, at [171].

²⁰ Court of Appeal decision, above n 12, at [178].

²¹ And Coastal Marine Area (CMA) to the extent they are not the same.

²² Court of Appeal decision, above n 12, at [200], [201].

²³ Appendix 4 lists the further information received from BWO and other parties when considering this ruling request.

56. To assess the significance of the adverse effects of the activities on the environment, the EPA has adopted the significance assessment tool developed by NIWA for the Ministry for the Environment²⁴ as this methodology is in accordance with accepted New Zealand standards for the evaluation of ecological effects. The methodology set out in the criteria can be applied to rulings and provides adequate guidance to decision makers on assessing adverse effects on the environment. The significance assessment tool is at Appendix 5.
57. A discussion of the key effects and mitigations in relation to the proposed activities is presented below.

Assessment of effects and mitigations

Information certainty and adequacy

58. The nature of EPA's general discretionary power under s 162 is to allow for an exception to be made from the requirements that apply to marine consent applications. The exception may be available in circumstances where s 162 applies and it is determined the adverse effects of activities are likely to minor or less than minor. The section confers a dispensing power if exercised. As noted by Cooke J in *Environmental Protection Authority v BW Offshore Singapore Pty Ltd*:²⁵

"It is a gatekeeping decision that excludes the participation of other interests in the decision-making process, and accordingly requires very clear evidence and justification before such decisions can be made."

59. I acknowledge that considerable efforts were made by BWO to provide the necessary information in support of the ruling request. However, while the nature of the activities can be understood in the terms set out in s 39, it is the case that there is significant inadequacy and uncertainty in the information provided as to spill risk if the FPSO disconnected from the field as proposed leading to significant uncertainty about the effects of the Activities 3 and 5 on the environment or existing interests.
60. I have applied the information principles contained in s 61. One of the key purposes of the information principles is to ensure that the environmental objectives of the EEZ Act are not undermined by authorising restricted activities in circumstances where it is uncertain whether those objectives will be achieved.²⁶ The information relating to Activities 3 and 5 is inadequate and uncertain and I consider that the EPA needs to have adequate and sufficiently certain information to identify and evaluate the risks involved in a proposal such as this.
61. Of particular concern has been Petrofac's expert review of the available information on the SURF systems and wellheads²⁷. The review revealed the spill risk profile of the subsea infrastructure would increase if the FPSO disconnected from the field and that the chance of a spill from the reservoir or

²⁴ Tabulated risk matrix from MacDiarmid et al. (2012). Expert Risk Assessment of Activities in the New Zealand Exclusive Economic Zone and Extended Continental Shelf. A Report prepared by NIWA for the Ministry for the Environment (see table in Appendix 5).

²⁵ *Environmental Protection Authority v BW Offshore Singapore Pty Ltd* [2020] NZHC 704 at [35].

²⁶ *Trans-Tasman Resources Limited v Taranaki-Whanganui Conservation Board* [2020] NZCA 86, at [128].

²⁷ Petrofac report titled FPSO Umuroa Disconnection Subsea Spill Risk Assessment. Issue 1. Dated 22 March 2020, and addendum dated 26 March 2020.

flowlines to the environments is likely if BWO undertook its disconnection procedure as proposed²⁸. This is significant because the s 162 assessment as to whether the adverse effects on the environment or existing interests are likely to be minor or less than minor needs to address all effects of the proposed activities in a comprehensive way.

62. The Petrofac review calls into question the integrity of the whole Tui Field infrastructure system should BWO undertake its disconnection activities as proposed. The report notes that the field is not proposed to be suspended in accordance with normal industry practice²⁹; the wells are not proposed to be killed³⁰, no additional barriers are considered, nor are the existing barriers proposed to be verified to ensure their ability to contain reservoir fluids³¹. Petrofac's report stated that a worst-case spill scenario from the reservoir is unable to be predicted based on the uncertainty and inadequacy of the information available³² and that the discharge of hydrocarbons in the environment is likely over the medium to long term (9 months to 10 years)³³.
63. The uncertainty of a worst-case spill scenario prevents me from determining the scale, intensity, and duration of future adverse effects that may arise on the environment on or existing interests should existing barriers fail. Further, the inadequacy of the information provided by BWO on the effectiveness of the existing barriers to contain a spill creates uncertainty for the likelihood of a worst-case scenario arising.
64. I have attempted to address this uncertainty to the extent that I am able by seeking further information. I have sought the best available information on barrier testing of the wellheads in the Tui Field (recent and historic) from BWO³⁴. In its response dated 1 April 2020, BWO asserted it is not responsible for the field or the subsea infrastructure and the information requested by the EPA was held by Tamarind. I approached Tamarind on 2 April to determine if it had available the information required to address the uncertainty in barrier effectiveness. Tamarind confirmed it did not have the information³⁵.
65. To the extent I have been able, I have considered the proposed activities against the s 59 and 60 factors in terms of effects on the environment or existing interests and the decision making criteria contained in s 10(1) of the EEZ Act. This assessment is contained in detail in Appendix 3.
66. My conclusion however, is that while I consider I have the best available information in the circumstances, that information is too uncertain and inadequate for me to determine whether the adverse effects on the environment or existing interests are likely to be minor or less than minor for Activities 3 and 5.

²⁸ Page 11 of Petrofac report titled Addendum (1) to FPSO Umuroa Disconnection Subsea Spill Risk Assessment. Issue 1. Dated 26 March 2020.

²⁹ Page 35 of Petrofac report titled FPSO Umuroa Disconnection Subsea Spill Risk Assessment. Issue 1. Dated 22 March 2020.

³⁰ Circulating a fluid which allows hydrostatic pressure in the production tubing to match or exceed the reservoir pressure.

³¹ Page 37 of Petrofac report titled FPSO Umuroa Disconnection Subsea Spill Risk Assessment. Issue 1. Dated 22 March 2020.

³² A worst-case spill scenario is unable to be predicted based on the uncertainty and inadequacy of the information provided by BWO

³³ Page 11 of Petrofac report titled Addendum (1) to FPSO Umuroa Disconnection Subsea Spill Risk Assessment. Issue 1. Dated 26 March 2020.

³⁴ Requests to BWO dated 2 March 2020 and 23 March 2020,

³⁵ Email to EPA dated 3 April 2020.

67. For completeness, I note that the uncertainty and inadequacy in respect of information available for Activities 3 and 5 is not the case for Activity 2. In my view, the information provided by BWO is sufficiently certain and adequate for me to determine that the adverse effects of Activity 2 on the environment or existing interests are likely to be minor or less than minor.

Requirement for overall plan for the Tui field

68. In the alternative to the above, and in light of the High Court decision in *Environmental Protection Authority v BW Offshore Singapore Pty Ltd*,³⁶ the EPA has also considered the disconnection as part of the wider circumstances including potential decommissioning of the whole Tui Field and the effects on the environment and existing interests that arise. Cooke J noted that:³⁷

“...before the EPA could decide that the effects of activities were likely to be minor or less than minor it would need to know what the overall plan for bringing those activities to an end was (if that is what is contemplated)”.

69. It is evident in the Impact Assessment documentation that BWO considered decommissioning is a contemplated outcome for the infrastructure in the Tui field, following its proposed disconnection activities³⁸.
70. Having extensively engaged with both Tamarind and BWO since late 2019, the EPA is not aware of the existence of, and has not been provided with, an overall plan for bringing the activities of the Tui Field to an end. Without an overall plan for bringing activities to an end, I consider that there is too much uncertainty in the information that is available to determine whether the adverse effects on the environment or existing interests of the proposed activities are likely to be minor or less than minor. I also note that not only would the EPA need to have this information to inform its assessment of effects on the environment but existing interests would also need to be provided with an overall plan to allow them to provide an informed view on the impact of proposed activities on their existing interests.

Effects on the environment

71. Taking into account the substantial inadequacy and uncertainty in the information available to me, I discuss the effects of the proposed activities on the environment to the extent I am able below. I have limited my discussion to activities with more than negligible effects.

Risk of spill from disconnection and laydown activities (Activities 3 and 5)

72. As discussed above, and in detail in Appendix 3, the scale, duration, and intensity of effects on the environment that may arise due to a spill of hydrocarbons is too uncertain for me to determine if these effects are likely to be minor or less than minor.

Potential effects on marine mammals

73. Other than effects arising from a hydrocarbon spill, marine mammals are likely to be affected by increased vessel activity (Activity 1) and vibrations in the water column that may be caused by the operation of the ROV and cutting of the risers (Activities 2 and 3). The limited duration of activities (up to 40 days) and scale of the effects (limited to within a few square kilometres) reduce the likelihood of any adverse effects of any marine mammals including Maui Dolphins. Notwithstanding the very low

³⁶ *Environmental Protection Authority v BW Offshore Singapore Pty Ltd* [2020] NZHC 704.

³⁷ *Ibid*, at [37].

³⁸ Pages 13 and 23 of Part 1 of the IA.

likelihood of potential for marine mammals' mortality, I consider that the integrity of some marine mammal species, particularly Maui Dolphins, is extremely sensitive to mortality due to their very low population numbers.

74. BWO specify mitigation measures to reduce the risk of vessel strike, including and slowing vessels or changing course when marine mammals are sighted. Given the relatively low level of vessel presence and short duration of activity, I consider this voluntary measure is appropriate to reduce impacts on marine mammals. This is consistent with the approach taken by the Board of Inquiry for EEZ100016 in relation to vessel traffic for the development drilling programme in the Tui Field³⁹. I consider the residual risk from vessel strike to marine mammals could be at worst low, and the potential adverse effects to be minor.

Effects on existing interests

75. Taking into account the substantial inadequacy and uncertainty in the information available to me, I am not able to determine if the adverse effects of the activity on existing interests are likely to be minor or less than minor. Nonetheless, I discuss the effects of the proposed activities on the environment to the extent I am able below.
76. To inform my understanding of the effects of the proposed activities on existing interests I requested information from:
- a. Tamarind,
 - b. Taranaki Iwi,
 - c. Te Āti Awa,
 - d. Ngā Ruahine, and
 - e. Ngāti Ruanui.
77. Tamarind, Taranaki Iwi, and Ngāti Ruanui responded to the further information requests.
78. The EPA also approached its Māori Advisory Committee, Ngā Kaihautū Tikainga Taiao (Ngā Kaihautū) to provide advice on which iwi should be asked for comment and whether it wished to provide additional comment. Ngā Kaihautū noted and encouraged EPA engagement with iwi in Taranaki but decided not to provide a substantive response in addition to the responses received by Taranaki Iwi and Ngāti Ruanui. Ngāti Ruanui, Ngā Ruahine, Taranaki iwi, and Te Āti Awa are all present in the wider geographic area to the PMP38158. Both BWO and Ngāti Ruanui acknowledged the activities are planned to take place in the rohe of Taranaki Iwi.

Potential effects on fishing interests

79. Both Taranaki iwi and Ngāti Ruanui identified their right to commercial and customary fishing in the wider area, including FMA 8. For the reasons outlined above, I do not consider that there is sufficiently certain information to address all effects on persons with commercial fishing interests in Fisheries Management Area (FMA) 8 or 9 (including iwi with fishing interests). However I consider the effects from the other proposed activities (Activities 1, 2, and 8) are likely to be negligible.

³⁹ Page 77 of the Decision on marine consent and marine discharge consent EEZ100016.

Effects on iwi existing interests

80. In response to our requests for further information from Taranaki iwi, Ngā Ruahine, Te Āti Awa, and Ngāti Ruanui, iwi raised matters that relate to their existing interests (including the relationship between the iwi and the marine environment known in te ao Maori as kaitiakitanga, governed by tikanga Maori as appropriate) that may be affected by the proposed activities. The matters raised by Taranaki Iwi and Ngāti Ruanui relate to effects that may arise from a spill or the presence of structures on the seabed. Taranaki Iwi note the effects on its existing interests from a spill event to be Moderate to Major. Taranaki Iwi consider the effects from the rulings are likely to be more than minor on its existing interests and refer to its environmental management plan *Taiao Taioa*:⁴⁰

“Our position is clearly articulated in Taioa Taioa, Taranaki Iwi will oppose any activity which degrades the natural balance present in the living ecosystem and environment of Tangaroa-i-te-tai. The likely effects of these rulings on the living ecosystem and environment of Tangaroa-i-te-Tai is likely to be more than minor, we therefore strongly urge the EPA to consider these potential effects and decline the rulings requested by BWO” [Taranaki Iwi emphasis]

81. BWO responded to Taranaki Iwi’s letter stating it considered the environmental risk posed by the rulings to be less than minor⁴¹.
82. As discussed previously, the uncertainty of a worst-case spill scenario prevents me from determining the scale, intensity, and duration of future adverse effects on the environment or existing interests that may arise should existing barriers fail.
83. Therefore, I am unable to determine that the adverse effects of Activities 3 and 5 on the environment over which Ngāti Ruanui or Taranaki Iwi hold an interest is likely to be minor or less than minor.
84. Taranaki Iwi have not specified how their interests including their relationship with the marine environment may be affected by the limited nature and highly localised effects of the ROV operations under Activity 2. In these circumstances I do not consider that providing a ruling for Activity 2 would override the existing interests of iwi having regard to the principles of the Treaty including partnership and active protection.

Conclusion

85. I consider that Activity 1 does not require a ruling under s 162 of the EEZ Act because it does not involve any adverse effects on the environment or existing interests.
86. Activity 2 will require a ruling to be lawfully carried out. The adverse effects of this activity on the environment or existing interests is sufficiently certain and likely to occur within a limited area within PMP 38158 and for a limited duration.
87. I consider Activities 3 and 5 and are not able to be authorised under a ruling. There are likely to be adverse effects on the environment or existing interests, from disconnecting and placement of the SURF system from the FPSO in the manner proposed. However, I do not have sufficiently certain information to determine if the effects of these activities are likely to be minor or less than minor on the environment or existing interests based on my assessment in paragraphs 55 to 64, and in the alternative, based on my assessment in paragraphs 65 to 67. In these circumstances, and applying

⁴⁰ Letter from Taranaki Iwi to EPA dated 9 March 2020 at [21].

⁴¹ Letter from BWO to EPA dated 11 March 2020.

the information principles in s 61, I consider it appropriate to favour caution and environmental protection in making my assessment under s 10.

88. I consider that Activity 8 does not require a ruling under s 162 of the EEZ Act because it does not involve restricted activities under the EEZ Act.
89. For Activity 2, based on my assessment in Appendix 3, I consider that:
 - a. The adverse effects on the environment of undertaking the activities are less than minor.
 - b. The adverse effects on existing interests as the activities are less than minor.
90. For Activities 3 and 5, and based on my assessment in Appendix 3, I consider that:
 - a. I am not able to determine whether the adverse effects on the environment are likely to be minor or less than minor.
 - b. I am not able to determine whether the adverse effects on existing interests are likely to be minor or less than minor.
91. Section 10(1) of the Act constitutes the decision making criteria under the EEZ Act. On the reasoning above, I am satisfied that providing a ruling for restricted activities involved in Activity 2 would achieve both s 10(1) purposes to promote sustainable management of natural resources of the EEZ and protect the environment from pollution by regulating or prohibiting the discharge of harmful substances under the EEZ Act .
92. However, the lack of information and resulting uncertainty about the effects of Activities 3 and 5 means I am not satisfied that providing a ruling for the restricted activities involved in Activities 3 and 5 would achieve either of the s 10(1)(a) or (b) purposes of the EEZ Act. In particular, the uncertainty of a worst-case spill scenario from the reservoir prevents me from determining the scale, intensity, and duration of future adverse effects that may arise on the environment on or existing interests should existing barriers fail. Further, the inadequacy of the information provided by BWO on the effectiveness of the existing barriers to contain a spill creates uncertainty for the likelihood of a worst-case scenario arising. The real prospect of material pollution to the environment from an unplanned discharge means that I cannot see how providing a ruling for Activities 3 and 5 would be consistent with achieving either the s 10(1)(a) purpose to promote sustainable management, or s 10(1)(b) purpose to protect the environment from pollution.

Recommendation

93. I have assessed the final ruling request, submitted by BWO on 18 February 2020, for a ruling related to the disconnect and lay down of risers, and sail away of the FPSO Umuroa in PMP 38158 and I recommend that the EPA provide a ruling only for Activity 2 (as set out in Appendix 1), and not for Activities 3 and 5 because:
- a. The activities for which a ruling is sought are restricted by s 20 of the EEZ Act,
 - b. The FPSO Umuroa and associated SURF system are structures that existed prior to 28 June 2013,
 - c. The activities are associated with PMP 38158 which is authorised under the Crown Minerals Act 1991 prior to 28 June 2013,
 - d. The activities identified in the request fall within the scope of s 162(3) of the EEZ Act,
 - e. There are adverse effects on the environment or existing interests,
 - f. For Activity 2, the adverse effects on the environment or existing interests of restricted activities are likely to be less than minor,
 - g. For Activities 3 and 5, the information is too uncertain and inadequate to determine whether the adverse effects on the environment or existing interests are likely to be minor or less than minor,
 - h. I am satisfied that providing a ruling for restricted activities involved in Activity 2 would achieve both s 10(1) purposes, to promote sustainable management of natural resources of the EEZ, and to protect the environment from pollution by regulating or prohibiting the discharge of harmful substances under the EEZ Act, and
 - i. I am not satisfied that the restricted activities involved in Activities 3 and 5 would achieve either of the s 10(1) purposes, to promote sustainable management of natural resources of the EEZ, and to protect the environment from pollution by regulating or prohibiting the discharge of harmful substances under the EEZ Act
94. I recommend that you:
- a. **provide** ruling EEZ500029 to BW Offshore for the restricted activities involved in Activity 2 described in Appendix 1 as it relates to Activities 3 and 5, and
 - b. **note** that Activity 1 does not require authorisation to be undertaken because it is an existing activity that does not have adverse effects on the environment or existing interests; and
 - c. **note** that Activity 8 does not require authorisation to be undertaken because it is not restricted under the EEZ Act
 - d. **do not provide** a ruling for the restricted activities involved in Activities 3 and 5 for the reasons described above, and
 - e. **require** that the restricted activities subject to this ruling will be carried out in accordance with the ruling request information available to EPA as at 23 April 2020 including the Impact Assessment and all further information provided by BWO and that ruling EEZ500029 may not be relied on in the event that EPA considers that circumstances relevant to the ruling have materially changed at a future time, and

- f. **note** that ruling (EEZ500028) has been provided for Activity 2 (as it relates to Activities 4, 6, and 7) and Activities 4, 6 and 7 as described in Appendix 1 to that ruling, and
- g. **note** that each of the restricted activities are interconnected at a practical level such that in order for overall disconnection to lawfully be carried out, all of the restricted activities with adverse effects subject to this request and ruling EEZ500028 would require a ruling or other form of authorisation to be provided under the EEZ Act. By not providing a ruling for restricted activities involved in Activities 3 and 5 this decision does not allow BWO to lawfully achieve disconnection from the Tui Field.



22 04 2020

Ben Moginie

Date

Senior Advisor

Land & Oceans Applications

Decision

Having taken into account all relevant information and considerations and having exercised my powers to seek further information where appropriate, I agree with all recommendations outlined above and note that this memorandum (including Appendixes) provides the reasons for my decision to exercise my discretion under s 162 the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act) to provide ruling EEZ500029 to BW Offshore.

Pursuant to s 162(2) of the EEZ Act, the EPA provides ruling EEZ500029 to BW Offshore. This ruling expires on 24 November 2025.

Approved on behalf of the Environmental Protection Authority under Delegated Authority.



23 04 2020

Siobhan Quayle

Date

Group General Manager

Regulatory Systems and Operations