

**Before the Board of Inquiry of the
Environmental Protection Authority
Beach Energy Applications for Marine Consent and Marine
Discharge Consent**

IN THE MATTER OF

**the Exclusive Economic Zone and
Continental Shelf (Environmental
Effects) Act 2012**

AND

**An application by Beach Energy
Resources NZ (Kupe) Limited for a
marine consent for development
drilling activities in the Kupe Field,
offshore Taranaki, including the
associated logistical and
environmental monitoring activities**

AND

**An application by Beach Energy
Resources NZ (Kupe) Limited for a
marine discharge consent to
discharge harmful substances from
offshore processing drainage from
deck drains aboard a drill rig**

Submission by Climate Justice Taranaki Incorporated

21 July, 2022

www.climatejusticetaranaki.info

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MIHI

- 1) Ko Rangī
ko Papa
ka puta
ko Rongo
ko Tānemāhuta
ko Tangaroa
ko Tūmataūenga
ko Haumiatiketike
ko Tāwhirimātea.
Tokonā rā ko Ranginui ki runga
ko Papatūānuku ki raro
ka puta te īra tangata
ki te whāi ao
ki te ao mārama
Tihe, mauri ora!

- 2) He mihi tēnei ki a rātou kua wehe atu ki te pō, ki a rātou kua wheturangitia, ki ngā kuia, ngā koroheke i whawhai ai hei tiaki i te whenua, te moana me te mana motuhake! Haere, haere, haere atu rā. Ko te kupu a Te Whiti: Ko te pō te kaihari i te rā, ko te mate te kaihari i te oranga. Nō reira, kei te tuku mihi te rōpu nei ki a koutou, koutou o Te Mana Rauhi Taiao [EPA]. Ko Climate Justice Taranaki (CJT) te ingoa o te rōpu nei, e tuhituhi ana. Nō Taranaki mātou.
- 3) I ngā tau kua hipa, i tae mai tēnei kamupene – ā, ko Beach Energy – ki roto o Taranaki ki te kerī hinu, me te kapuni. Kāhore mātou e tautoko i tērā momo mahi, nō te mea, kāhore he pai mō te moana, ngā kārarehe, me te ao katoa.
- 4) Nō reira, kāhore mātou e whakaae ki te mahi kino o te kamupene rā. Haere atu!
- 5) Heoti anō, e te komiti, anei ngā kōrero o tō mātou rōpu CJT. Tēnā koutou, tēnā koutou, tēnā koutou katoa.

INTRODUCTION

- 6) This submission is made by Climate Justice Taranaki Incorporated (CJT) – a community group dedicated to environmental sustainability and social justice. This includes issues of inter-generational equity, notably in relation to climate change, which impacts current and future generations’ inalienable rights to safe water, food and shelter, crucial to sustaining livelihoods and quality of life. CJT became an incorporated society on 26 February 2015.

SUMMARY

- 7) CJT submits that the applications should be declined in full for the following reasons:
 - a) The proposed activities do not meet the purpose of the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012 (EEZ Act).
 - b) The impact assessment (IA) does not provide sufficient detail to enable the Environmental Protection Authority (EPA) and persons whose existing interests are or may be affected to understand the nature of the activities and their effects on the environment and existing interests, as required under the EEZ Act 2012 s 39(3)(b).
 - c) The information provided is uncertain and inadequate, the Minister must favour caution and environmental protection (EEZ s 34(2); 61(2)). The information provided is not “*best available information*” available without unreasonable cost, effort, or time as defined in the EEZ Act s 34(4) and 61(5).
 - d) The cumulative impacts from this and other industrial activities in Te Tāpokopoko o Tāwhaki the South Taranaki Bight (STB) on marine species have not, indeed never, been properly assessed, as required under the EEZ Act s39(1)(d) and 59(2)(a)(i). The risks to endangered and critically endangered species are unacceptable. NZ has the obligation to protect and enhance the recovery of threatened and endangered species under the Convention on Biological Diversity 1992 (EEZ s 11(b)).
 - e) It is our submission that the application breaches Te Tiriti o Waitangi and fails to provide active protection, duty of care and public trust of Māori interests including tāonga and tikanga-based customary rights and interests as stipulated in EEZ s12 and s59(2)(l). It also negates kaitiakitanga relationships between tāngata whenua and Taiao.
 - f) The impacts on iwi and hapū cultural values (IA section 7.4) were superficially addressed then ignored. The joint Cultural Impact Assessment (CIA) noted that “*Ngāti Ruanui and Ngāruahine*

oppose the Beach Energy application to the EPA based on the nature and significant scale of cultural impacts on the moana and the people of the iwi... There are cultural impacts on whakapapa, tikanga, mātauranga and kaitiakitanga that are significant and cannot be avoided or remedied...
(Beach Energy Application Impact Assessment / IA Appendix F).

- g) Assessing related applications (notably the various discharge consents) separately lacks transparency and does not allow holistic assessment of **cumulative impacts** or integrated management of effects. EEZ s44 allows for joint processing and decision making on related applications.
- h) The IA does not provide any thorough assessment or assurance of the integrity of existing and new structures associated with the activity, considering increasing extreme weather events caused by climate change caused by this very industry.
- i) Aotearoa New Zealand is ill prepared for any major loss of well control and oil spill.
- j) The application is not consistent with New Zealand's obligations under the various international conventions relating to the marine environment, including the United Nations Convention on the Law of the Sea 1982, the Convention on Biological Diversity 1992, the Noumea Convention 1986 and the London Convention on Dumping. These have not been properly considered in all previous assessments. Granting of the consents will contravene NZ's international obligations under various international conventions (EEZ s 11).
- k) Further exploration, drilling and mining for fossil fuels is irresponsible culturally, socially, environmentally and economically. It goes against all recent international advice, notably from IPCC AR6 WGIII¹ and the International Energy Agency (IEA)².
- l) New Zealand has the obligation to deliver its commitment to the Paris Agreement under the UNFCCC and the subsequent Global Methane Pledge launched at COP 26 in November 2021 in Glasgow³. The EEZ Act must be amended to include considerations of climate change and be in line with the Zero Carbon Act.

STATUTORY REGIME

International Law

- 8) The application neither continues nor enables the implementation of New Zealand's obligations under various international conventions relating to the marine environment, including the United Nations Convention on the Law of the Sea 1982, the Convention on Biological Diversity 1992, the Noumea Convention 1986, the London Convention on Dumping or the Paris Agreement on Climate Change 2015. This is not in accordance with New Zealand's duty to protect and preserve the marine environment. It will not contribute to New Zealand meeting its climate change obligations.
- 9) A precautionary approach to this proposal is required to prevent further degradation of the marine environment. New Zealand has repeatedly signed up to the precautionary approach in numerous international instruments and therefore has an obligation to apply it. Its widely accepted formulation is in Principle 15 of the Rio Declaration⁴: *"In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."*
- 10) The precautionary approach is an essential component and an obligation because of its ability to reduce environmental risk as it involves an anticipatory preventative action in response to uncertainty. There is

not a full understanding of the physical, chemical or biological components or processes, nor the ecosystem functions, nor the life that exists in the area, resident or transient, and how that life interrelates within the surrounding environment. What we do know is that STB is a global marine mammal hotspot, hosting at least 35 species, six of which are globally Endangered and a further 18 of which are so poorly known as to be classified 'Data Deficient' by the International Union for the Conservation of Nature (IUCN). In 2018, it was confirmed that the blue whales in the South Taranaki Bight are genetically distinct. Thus the estimated minimum population of 718 represents an isolated New Zealand population^{5,6}.

- 11) This application is far from comprehensive. The applicant has not provided a robust application proving that their proposal is safe for the marine environment and poses no threat to future viability. Taking a precautionary approach to major projects of this nature is internationally recognized. The EPA must apply the precautionary approach to this application and apply the provisions of section 10 and section 59(2) EEZ/CS Act to ensure that the marine environment is protected in accordance with that Act, and our international obligations.

Law Change and Regulatory Capture

- 12) The EEZ Act 2012 has had numerous sections repealed or replaced by the Resource Legislation Amendment Act on 1 June 2017⁷. Many of the changes concern the information principle, especially in relation to the discharge consent application, notably the revised EEZ s 39, 59, 61, 87D, 87E and 87F, largely to reduce the ability of the Act in protecting the environment. Earlier the EEZ-CS (Environmental Effects – Non-notified Activities) Regulations 2014⁸ made activities associated with exploration drilling non-notified, while regulation 21 of the EEZ-CS (Discharge and Dumping Regulations) 2015 made the discharge of harmful substances from drilling fluids and production water non-notified, hence avoiding public participation and scrutiny.
- 13) In 2012, Dr Geoff Bertram, Senior Associate of Victoria University of Wellington and former Councillor of the International Association for Energy Economics (IAEE), warned that given the experience of Think Big projects, *“policy makers need to tread carefully and the wider public needs to insure that the nation’s policy making and regulatory institutions are not captured and distorted by industry rent-seeking,”* (Bertram, 2012)⁹. More recently, Dr Terrence Loomis published two books, with in-depth description and analyses on the conflicts between the petroleum industry and environmental movement, and how the industry’s predatory delay campaign has influenced government policies (Loomis, 2017 and 2020)¹⁰.

THE PROPOSED ACTIVITIES DO NOT MEET THE PURPOSE OF THE EEZ ACT

- 14) The applications fail to satisfy the purpose or requirements of section 10 which are to promote the sustainable management of the natural resources of the EEZ-CS and to protect the environment from pollution. The proposed activities will not meet the bottom line of protecting the environment (EEZ s 10(1)(b) or contribute to sustainable management as defined in EEZ s 10(2) while— (b) safeguarding the life-supporting capacity of the environment; and (c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.
- 15) We refer to the Court of Appeal judgement on the Trans-Tasman Resources Ltd’s (TTRL) application for seabed mining in the South Taranaki Bight Ltd - [2020] NZCA 86 CA573/2018 released in April 2020¹¹:

“[89] It follows that the criteria for marine discharge consents are different from, and more demanding than, the criteria with respect to marine consents generally. It is not consistent with the scheme of the EEZ Act to trade off harm to the environment caused by a marine discharge against other benefits, such as economic benefits. Nor is it consistent with the scheme of the EEZ Act to permit harm to the environment caused by a marine discharge on the basis that this harm will subsequently be remedied or mitigated. It would be inconsistent with s 10(1) for the EPA to grant a marine discharge consent if granting the consent is not consistent with the goal of protecting the environment from pollution. Protecting the environment — keeping it safe from harm caused by marine discharges or marine dumping — is in this sense a bottom line.”

EFFECTS ON EXISTING ENVIRONMENT AND INTERESTS

Māori interest and Te Tiriti o Waitangi

- 16) We again refer to the Court of Appeal judgement on the Trans-Tasman Resources Ltd’s (TTRL) application for seabed mining in the South Taranaki Bight Ltd - [2020] NZCA 86 CA573/2018 released in April 2020:
- “[12](c) The DMC was required to have regard to the effect of the activity on existing interests. As we explain below, the kaitiakitanga relationship between tāngata whenua and the marine environment and its resources is a relevant “existing interest”. That **kaitiakitanga** relationship includes, but is not limited to, the stewardship and use of natural resources such as kai moana. The **cultural and spiritual elements** of kaitiakitanga must also be considered. The DMC erred in failing to address the effects of TTR’s proposals on kaitiakitanga in that broader sense, and in failing to adopt an approach to those effects that was consistent with the Treaty principles that the relevant provisions of the EEZ Act are intended to ensure the Crown recognises and respects.”*
- 17) It is therefore our submission that Beach Energy’s application breaches Te Tiriti o Waitangi and fails to provide active protection, duty of care and public trust¹² of Māori interests including tāonga and tikanga-based customary rights and interests as stipulated in EEZ s12 and s59(2)(l). It also negates kaitiakitanga relationships between tāngata whenua and Taiao.
- 18) The impacts on iwi and hapū cultural values (IA section 7.4) were superficially addressed then ignored.
- 19) Ngāti Ruanui has raised their concerns that drilling and discharges will have a physical and cultural impact on taonga species. *“In particular the drilling will negatively impact the mauri of the moana in the STB area and as such will impact on the mauri of the marine community”* (IA Appendix F). The iwi has identified Tohorā (whales), Āihe (Maui dolphin) and Kororā (Blue penguin) as tāonga species that use the STB as migration routes, based on their 2019 research.
- 20) In addition, many demersal fish species support Ngāti Ruanui customary fishing rights. *“According to Ngāti Ruanui traditional knowledge, in winter and summer large (>1.5 kg) rock lobsters move offshore to depths more than 25 metres to feed on shellfish such as cockles or Tucetona species... scallops (Pectin novaezealandiae) and horse mussels (Atrina zelandica). Customary fishing targets rock lobsters on these shellfish beds during winter and summer seasons. The proposed application could impact on our customary fishers and subsequent loss of customary practices through fish displacement...”* (Appendix F).

21) Crucially, both **Ngāti Ruanui and Ngāruahine oppose the Beach Energy Application to the EPA based on the nature and significant scale of cultural impacts on the moana and the people of the iwi.** The joint cultural impact assessment concluded that:

- *“The proposed drilling and discharge application and its proposed area where it will operate, and surrounds have high cultural significance to Ngāti Ruanui and are habitats of tāonga species including indigenous flora and fauna.*
- *There are cultural impacts on whakapapa, tikanga, mātauranga and kaitiakitanga that are significant and cannot be avoided or remedied.*
- *Ngāti Ruanui traditional knowledge of the affected local marine environment confirms the presence of sensitive benthic habitats, threatened marine seabirds and mammals within the proposed exploration area and surrounds.*
- *The Ngāti Ruanui Claims Settlement Act 2003, (subpart 7, clause 109) acknowledges the cultural, spiritual, historical, and traditional association of Ngāti Ruanui with Ngā Tāonga a Tāne rāua ko Tangaroa, being the indigenous species; and the species of fish and other aquatic life found within the fisheries protocol area and managed by the Ministry of Fisheries under the fisheries legislation.*
- *There is inadequate information on the state of the marine environment on the proposed drilling and discharge area and surrounds leading to uncertainty. A lack of data does not provide a firm well-informed decision-making therefore **precautionary principles** should be favoured.”*

22) Ngāruahine also points to the *“lack of quality baseline information for the current state of the existing marine environment”* and the IA’s reliance on a mixture of mostly secondary data, old literature and assumptions based on the work by TTRL.

The precautionary approach

23) *“Where there is a threat of significant reduction or loss of biological diversity, lack of full scientific certainty should not be used as a reason for postponing measures to avoid or minimize such a threat,”* as stated in the preamble of the Convention on Biological Diversity¹³.

24) In order to honour the government’s obligations to the Convention of Biological Diversity and the Rio Declaration on Environment and Development 1992, EPA needs to adopt the precautionary approach (CBD, 2012)¹⁴ when assessing this application.

25) *“Of course, it is not only blue whales and Maui’s dolphins that should concern us. According to Kaschner et al. (2011)¹⁵, South Taranaki Bight and adjacent waters host the highest cetacean diversity on Earth. ... According to the IUCN, 6 are Endangered... Eighteen species are Data Deficient ... meaning there is not enough known about them by the leading specialists globally... to enable a robust assessment. Surely this is cause for concern,”* (DeVantier, 2017)¹⁶.

26) In addition to marine mammals, seabirds may also be impacted. For example, the Little blue penguin *Eudyptula minor*¹⁷, classified as ‘At risk – declining’ by the NZ government, was previously thought to be an exclusive near-shore feeder. However, recent research has revealed that some of these penguins can rely on distant foraging areas (200 m deep) while incubating, with nesting birds travelling up to 214 km to feed (Poupart, et al. 2017)¹⁸. Notably eight birds at the Motuara Island colony, Marlborough Region, were observed to have *“crossed the Cook Strait to forage 93-214 km away, as far as the Taranaki Bight...”* The authors further advised that *“These findings highlight the need to consider the little penguins’ large potential foraging ranges when managing threats and changes to the environment.”*

Indeed, any disturbance at the distant foraging ground during the penguin's breeding period could impact on the reproductive success and recovery potential of the species which is already 'at risk'.

- 27) EPA and the Board of Inquiry must properly consider the implications of allowing the current applications, especially the cumulative impacts that would result from Beach Energy's activities, along with fishing, seismic testing, appraisal/exploratory drilling, contaminant discharges, seabed mining and shipping on endangered marine mammals and other species. These impacts need to be assessed in the context of existing and anticipated impacts of rapidly escalating changes to ocean physico-chemistry and resulting trophic cascades.
- 28) In our previous marine consent application processes under the EEZ Act, we have explained in great detail our concerns over the effects from the disturbance, discharge and noise associated with further drilling and operation at the Maui^{19,20} and Tui²¹ fields, and with OMV's exploration drilling campaign across six licensed areas off Taranaki²². We also submitted to the EPA in opposition to the Trans-Tasman Resources Ltd. (TTRL) seabed mining applications^{23,24}. Our concerns remain valid, and stronger, as the state of our ocean and environment at large has continued to deteriorate, with intensification of petroleum and other extractive industries, climate disruption and changes in ocean chemistry – 'acidification' and 'deoxygenation', both harbingers of prior mass extinctions.
- 29) There is no argument among biologists and ecologists that marine ecosystems are under severe pressure, with massive die-offs of kelp forests, mass bleaching of sponges, and unexplained deaths of cetaceans. The latter included the unusual stranding of 13 dead male Sperm whales along S. Taranaki coast from late May to June 2018, a few weeks following the Amazon Warrior seismic operation^{25,26}. In the case of the giant kelp *Macrocystis pyrifera* die off, a five-year study revealed that temperature-induced kelp loss was greater when water clarity was poor (Tait et al. 2021)²⁷. The study on this foundation species highlighted the importance of studying marine heat wave effects across latitudinal gradients and in concert with other co-occurring stressors. The unprecedented bleaching and damage of sponges in Fiordland and Hauraki Gulf points to ecosystem collapse set forth by extreme ocean warming on top of other pressures such as marine pests and depleting fish stocks²⁸.

Cumulative effects during global change

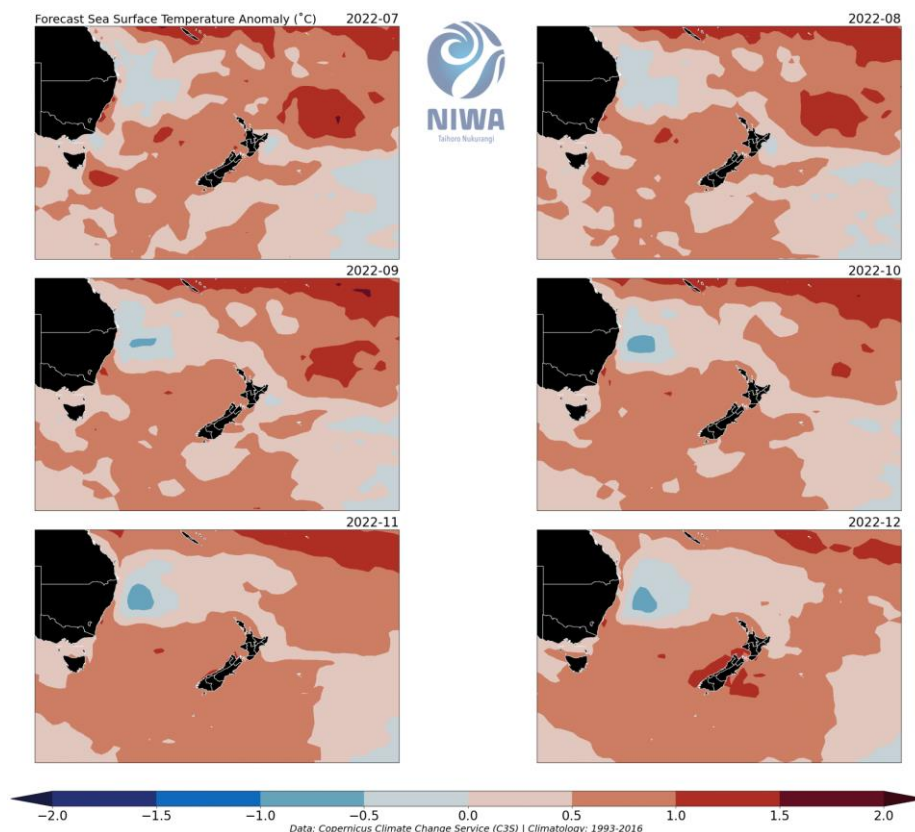
- 30) The Canadian Environment Assessment Agency²⁹ describes cumulative effects assessment (CEA) as "*environment assessment as it should always have been: an Environmental Impacts Assessment (EIA) done well*". The Agency further explains that CEAs are typically expected to:
- Assess effects over a larger (i.e., "regional") area that may cross jurisdictional boundaries;
 - Assess effects during a longer period of time into the past and future;
 - Consider effects on Valued Ecosystem Components (VECs) due to interactions with other actions, and not just the effects of the single action under review;
 - Include other past, existing and future (e.g. reasonably foreseeable) actions; and
 - Evaluate significance in consideration of other than just local, direct effects.
- 31) Our own EEZ Act section 6 includes "*any cumulative effect that arises over time or in combination with other effects*" as the meaning of effect.
- 32) The memorandum of counsel (5/5/2015)³⁰ provided to the Decision-Making Committee (DMC) during the first STOS consent application hearing under the EEZ Act considered, "*that section 59(2)(a) requires the EPA to take into account **all** effects on the environment or existing interests of allowing the proposed*

activity, including the effects of consequential activities that are not regulated by section 20. This interpretation was applied by the EPA in its decision on the marine consent application by Chatham Rock Phosphate Limited.... the effects of 'non-section 20 activities' undertaken in the area covered by the application or in its vicinity must be taken into account by the EPA, under section 59(2)(b)." This is a crucial consideration on the present applications, given all the other industrial activities that occur and ought to be assessed.

- 33) Beach Energy's IA stated, "*The planned activity driving the impacts with the largest spatial scale and longest duration associated with the Kupe Phase 2 Development Drilling Programme is the deposition of drill cuttings on the seabed. Impacts on the benthic environment could persist for up to and possibly beyond two to three years. The other activities do not result in effects with the same level of complexity, scale, or duration, but they could interact cumulatively to increase the overall level of effect. However, only the activities that could result in effects greater than negligible, and which are therefore capable of, or potentially capable of interacting additively with other activities are considered in this assessment of cumulative effects*" (IA s 7.7.1.2).
- 34) This approach to cumulative assessment ignores the interconnectedness among species and ecosystems, the current state of the environment and species concerned and impacts from global change.
- 35) For reference, the TTRL 2014 EPA decision noted, "*TTR did not undertake zooplankton sampling within the STB, and instead, Dr Grieve drew upon existing literature and sampling from the STB that took place in the 1970s and 1980s. Dr Grieve also acknowledged that little is known of the seasonal cycle of interannual variability of plankton, as the existing data was mostly collected in summer... The age of the data used was noted by EPA in their gap analysis, and only a limited subset is specific to the waters that are characteristic of the application area...*" The decision finding was, "*Effects on zooplankton are in a large part driven by primary production changes... there is considerable uncertainty around changes to primary production, and we lack confidence that there will not be a significant consequential effect on zooplankton and other parts of the food web.*"
- 36) Marine mammals and seabirds are not only affected by noise and vibrations, and pelagic environs are not only affected by explosives (IA page 260). The timing of the additional noise and disturbance in respect to critical life cycle stages and their effects on top of the existing background noise and other stresses need to be assessed in totality. It is our understanding that the main drilling operations will be around summer which coincides with the period when many species are active in the area, (e.g. the Nationally Vulnerable Basking shark), migrating (e.g. sexually mature adult eels / tuna heke) or spawning (e.g. John dory, Kingfish, Rig, School shark). Moreover, there are extended periods of disturbance outside of the 95 days of drilling per well for pre-drill operations and post-drill monitoring. Eighteen of the 51 NZ native freshwater fish species spend part of their lifecycle in the sea. Thirty-three species are Declining, Nationally Vulnerable, Endangered or Critically Endangered (Dunn et al. 2017³¹ & 2018³²).
- 37) For a threatened species, an apparently 'negligible' effect on the environment or the food web of which it's part, could jeopardise its survival or chance of population recovery, especially when considering the increasing stress from global warming and ocean acidification and deoxygenation. **We do not agree that the overall cumulative effect of discharge and noise and vibration associated with drilling on marine mammal populations, seabirds and pelagic environments would be 'Less than Minor'** (IA s 7.7.4).
- 38) We note that Ngāti Manuhiakai hapū has assessed the cumulative effects from Beach Energy's planned activities would have "*Moderate*" residual impact on mauri for marine mammals and seabirds (IA Appendix F).

- 39) Ihirangi (2021)³³ described the indigenous worldview eloquently: *“An indigenous world view does not work from a minimal or reductionist lens; it operates above the baseline, at the optimal, and sees stress on any composite part of the eco-system (such as over use, over allocation, degradation etc) as creating its own measurable impact on other parts of the world. This is a blend of an inter-connectivity lens with that of inter-generational equity; and then looks additionally at the quality and state of wellbeing; and assesses that against a measure of abundance, vibrancy, regeneration and optimal health. It is not necessarily that the measuring stick for impact is inconsistent with current applications, but critically the indigenous worldview starts the measurement from a markedly different point; that of abundance, or rauora.”*
- 40) The IPCC AR6 stated that over the past century, marine heat waves (MHWs) have doubled in frequency, become more intense, lasted for longer and extended over large areas. Marine heat waves have occurred in every ocean region. *“MHWs cause mortality of a wide variety of marine species, from corals to kelp to seagrasses to fish to seabirds, and they have consequent effects on ecosystems and industries such as mariculture and fisheries,”* (IPCC AR6 WGII Chapter 3, 2022)³⁴. Heatwaves also affect krill, a key component in Southern Ocean food webs³⁵. Changing ocean chemistry, particularly acidification³⁶, is another looming impact to krill populations³⁷ and shellfish.
- 41) Increasing greenhouse gas emissions have caused rapid changes in sea temperatures and ocean chemistry with cascading effects on food webs, and emerging issues are likely to have significant impacts on the functioning and conservation of marine and coastal biodiversity (Herbert-Read et al. 2022)³⁸. The oceanographic regime in the Tasman Sea and South Taranaki Bight is not static. Parts of the Tasman Sea have experienced extremely elevated sea temperatures³⁹ over the past decade. NIWA’s sea surface temperature forecast into December 2022 is alarming (Figure 1 below). There is peer reviewed evidence that such temperatures disrupt food webs⁴⁰. These are all cumulative effects that must be assessed.

Figure 1. NIWA sea surface temperature forecast as of 14 July 2022⁴¹



- 42) Peer reviewed research over past decades have found massive declines in ocean plankton, the very basis of food webs, accounting for half of global primary production, and the major sink for CO₂ emissions. Boyce et al (2010)⁴² reported declines in eight out of ten ocean regions. They estimated a global rate of decline of ~1% of the global median per year, related to increasing sea surface temperatures. Results of a new study are even more concerning, documenting up to 90% loss in plankton across parts of the Atlantic Ocean⁴³.
- 43) Recent studies (Roman et al 2014)⁴⁴ have revealed the startling role of whales in sequestering carbon, nutrient cycling and maintaining ecosystem health, giving added impetus to protecting and restoring whale populations worldwide⁴⁵. Related research and initiatives are now extending to fish carbon ecosystem services and governance of the open ocean⁴⁶.

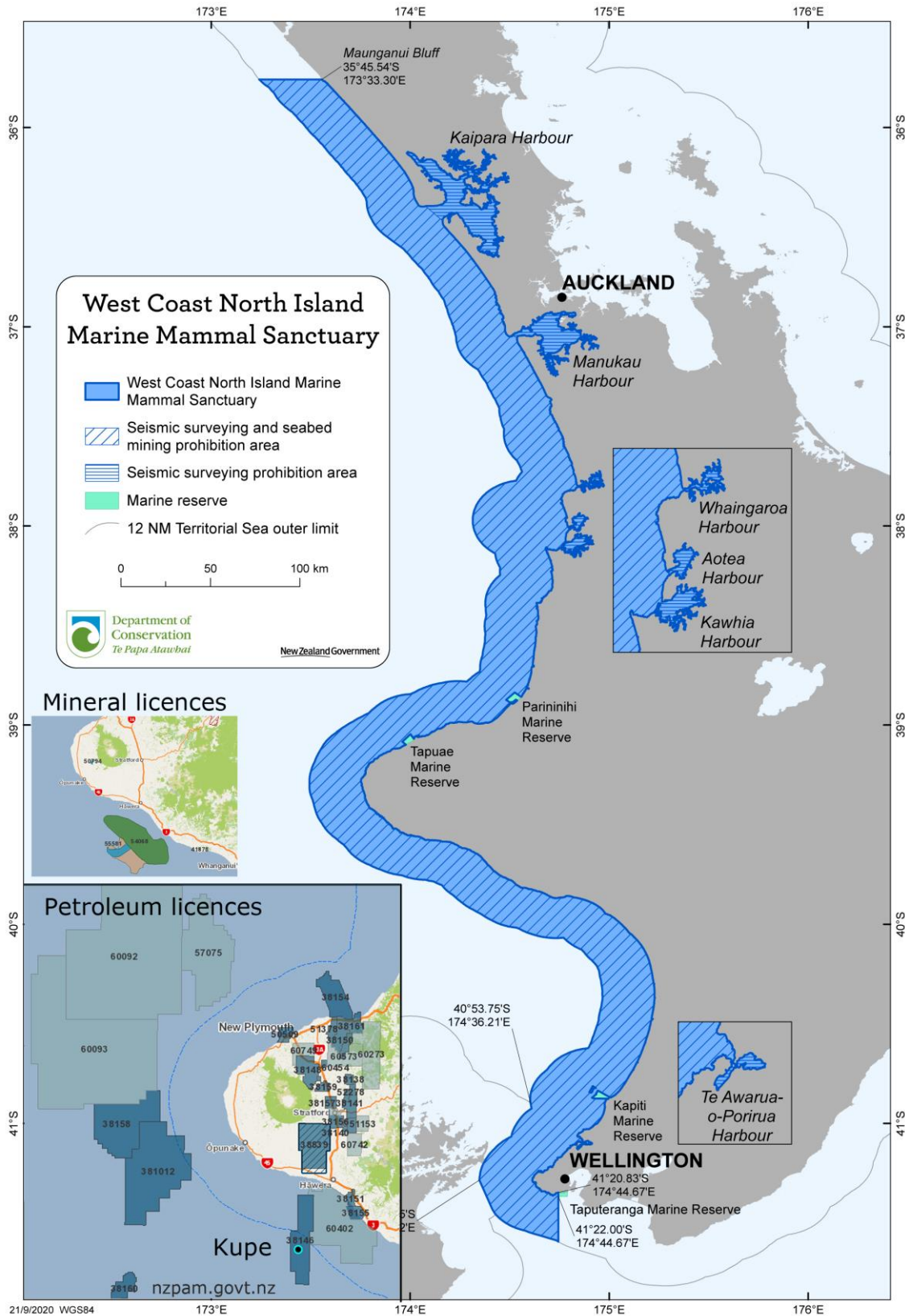
Impacts on marine mammals

- 44) The Kupe IAA (Impact assessment area) lies within the globally recognised South Taranaki Bight Important Marine Mammal Area (STB IMMA)⁴⁷ which is home to over 35 marine mammal species, including at least eight species or subspecies with IUCN threatened status — the Critically Endangered Māui dolphins and Antarctic blue whale; the Endangered Hector's dolphin, Pygmy blue whale, Oceania sub-population humpback whale and Sei whale; the Vulnerable fin whale and sperm whale. The IMMA is used as a migratory corridor for humpback, blue and southern right whales, and harbours breeding colonies of NZ fur seals.
- 45) The NZ Pygmy blue whales are a genetically distinct and isolated population with year-round presence in the STB which is a critical foraging ground (Barlow et al., 2018)⁴⁸. Notably, researchers found that the whales sought the coolest waters available for feeding, during both heat waves and more typical ocean conditions⁴⁹. The coolest waters are associated with upwelling where nutrient-rich water supports aggregations of krill. The researchers also found that during the 2016 regional marine heat wave, there were fewer aggregations of krill for the blue whales which had to pursue the densest aggregations of krill they could find (Barlow et al. 2020)⁵⁰. Such observations demonstrate how tightly interlinked species are, and how vulnerable they are to changing ocean temperatures and chemistry in the STB. More recent research⁵¹ supports these findings, *“Shifts in krill habitat timing may also affect migratory predators. For example, each year humpback whales migrate from the tropics to the poles to feed on the huge amount of summer krill. If the krill peak occurs earlier in the season, the whales must adapt by arriving earlier, or be left hungry.”*
- 46) The Kupe petroleum mining licence spans an area of over 256 sq.km. from the EEZ into the West Coast Marine Mammal Sanctuary⁵² in the coastal marine area designated largely for the Māui's dolphin (Figure 2). The Kupe wellhead platform and IAA lie just outside the sanctuary. The exploratory and mining activities associated with numerous petroleum and mineral licenced areas in the vicinity, including Kupe, threaten the safety of all marine species, in and outside the sanctuary. We have emphasized the plight of the Māui's dolphin in our previous submissions to the EPA and again ask that the Board of Inquiry consider it seriously in the current assessment process. Crucially, Prof. Elizabeth Slooten's expert evidence (2014)⁵³ on the OMV applications for drilling in the STB stated:

“The potential impacts of the proposed oil drilling include noise, collisions with vessels and mining equipment, habitat displacement. Oil spills and other forms of pollution... would have direct impacts on marine mammals and indirect ecological effects... Cumulative impacts of the proposed oil drilling need to be considered in combination with other, existing impacts on marine mammals in the area. These

impacts include fishing, seismic surveys, ship strike and other activities... At this stage, the addition of any further impacts would mean that there is little if any chance of NZ reaching its goal of ensuring the long term viability and recovery of Maui's dolphin."

Figure 2. Location map of the West Coast North Island Marine Mammal Sanctuary and existing petroleum and mineral licenced areas



Disjointed processing of related applications

- 47) As in previous consenting processes, the various harmful substances involved in drilling and production are not yet identified or finalised at the time of the application. In this case, *“Beach will be applying for a separate marine discharge consent for the discharge of these harmful substances once they are known to avoid potential uncertainty with the drilling fluids involved”* (IA s 3.1.3). *“The environmental effects of the discharges of these harmful substances would result in cumulative effects on various receptors and these cumulative effects will be assessed in the IA that will be prepared for”* that application (IA s 7.7.2). It is our understanding that the latter application would be **non-notified** under the EEZ-CS (Discharge and Dumping Regulations) 2015 section 21, so there is no way for the public to know the kind and level of impacts in question. It is irrational and inefficient to assess the effects of the disposal of the drill cuttings (up to 1,068 m³ per well) separately, and under different consent processes, from those of the drilling fluids/muds attached to the drill cuttings or *“be batch discharged from the MODU...”* (IA s 2.2.3.5). Such disjointed processing of related applications makes it impossible to assess cumulative effects comprehensively and transparently.
- 48) According to EEZ s 6(1), effects include (c) any past, present, or future effects; and (d) any cumulative effect that arises over time or in combination with other effects. By submitting applications for different but related activities separately, submitters and interested parties have no opportunity for comprehensive assessment of cumulative effects of all these activities to be conducted by the same operator in the same location or its close vicinity.
- 49) Because of concerns over the environmental and health impacts of contaminant discharges at sea, jurisdictions overseas have put in place tight regulations. Norway, for example, requires toxicity, biodegradation and bioaccumulation tests for all components in chemicals used offshore except those on “green” chemicals list⁵⁴. In Western Australia, legislation requires that all chemicals used down a well are approved, based on toxicity assessment, by the Department of Mines and Petroleum, and this information is made public⁵⁵.
- 50) Here however, the EEZ (Discharge and Dumping) Regulations 2015 states: *“The discharge of harmful substances described in regulation 4(a) and (b) from production water for the purpose of a test flow of an exploration well is classified as a non-notified activity under the Act”* (s 16(2)); *“The discharge of harmful substances described in regulation 4(a) and (b) from offshore processing drainage, displacement water, and production water from an existing structure is classified as a non-notified activity under the Act”* (s 16(3)) and *“The discharge of harmful substances contained in drilling fluids is classified as a non-notified activity under the Act”* (s 21).
- 51) The non-notification classification of consent applications required for such discharges prevents the public from being informed and participating. But it should not prevent the EPA and Board of Inquiry from processing and assessing their effects jointly, so that cumulative effects can be examined, with public input. The EEZ Act s 44 supports joint processing, hearing (if both are to be heard) and decision making on related applications. There appears to be a caveat in that s 44(a)(a) specifies if the EPA *“receives more than 1 application for a marine consent in relation to the same proposal (related applications)”*. In our view, EPA must have the authority to request operators to submit all related applications around the same time so that they can be jointly processed, to avoid enabling industry ‘loopholes’.
- 52) CJT strongly reiterates that classifying the discharge of harmful substances into the environment as non-notifiable violates the basic principles of democracy⁵⁶, ignores tāngata whenua’s role as kaitiaki and is disrespectful of cultural values especially mauri of the moana and tāonga species.

- 53) Furthermore, it is our understanding that Beach Energy has been considering drilling an appraisal well some 6 km southeast of the Kupe wellhead platform (i.e. beyond the current IAA), outside the Kupe Phase 2 Development Programme (IA Appendix G)^{57, 58}. The EEZ-CS Act s 29D classifies exploratory activities as **non-notified**⁵⁹ and the EEZ-CS (Environmental Effects- Non-notified Activities) Regulations 2014 defines appraisal well drilling as exploratory⁶⁰. Again, such non-notification violates democracy, and the disjoint consenting process precludes proper cumulative impact assessment. Above all, if an exploratory drilling consent is granted, it'd make a mockery of the prime minister's nuclear free moment and the supposed offshore oil ban of April 2018.
- 54) The level of public concern and objection to further oil and gas mining has been growing hugely. Our petition *Open submission: Refuse Beach Energy Drilling Consent* has garnered over 2,100 signatures in just over a week⁶¹. CJT will present the signed petition at the hearing.

Major incidents and oil spills

- 55) In addition to the planned discharge of harmful substances, there are significant risks on the marine environment, biodiversity, ecosystems and threatened species from a major accident such as a well blow-out and/or hydrocarbon (condensate or vessel fuel) or hazardous or noxious substance spill. The modelling presented in the IA *"predicts that the highest chance of condensate stranding occurs between Cape Egmont and Cape Terawhiti"*, especially between Opunake and Kapiti (IA Figure 57). There is a 1% chance of the single worst-case scenario resulting in *"3.3% of the spilled condensate stranding, with the 'hotspot' being located on the shoreline near Hawera"* (IA Figure 58).
- 56) Such risks are compounded by escalating climate disruptions, intensifying activities by multiple industries and New Zealand's inadequate capacity to deal with the consequences. These could severely impact our marine environment on which species of ecological, cultural and socio-economic values rely.
- 57) Notably, the IA reveals that Beach Energy has a contract with Australian Marine Oil Spill Centre (AMOSC) to assist in the response to a large spill, but AMOSC only serves member companies (Beach is not a member according to AMOSC website⁶²). Beach says it will also have a contract with Wild Well Control Inc. whose nearest regional response location is in Kuala Lumpur⁶³.
- 58) Climate scientists are warning of ever greater and more frequent extreme events^{64, 65}. These extreme weather events could threaten the safety of the operations proposed and exacerbate the environmental impacts should a major incident occurred. The IA does not give thorough analyses or clear indication of how the company intends to ensure safety and protection of their structures on site, as the level of risk increases with intensification of use, and over time.
- 59) There is no mention in the IA that Beach Energy would have adequate insurance or a bond to cover the costs of clean up, compensations and habitat remediation following a major oil spill or other incident.

ECONOMIC AND OPPORTUNITY LOSSES

- 60) The Parliamentary Commissioner for the Environment (2020)⁶⁶ pointed out, *"Continued investment in oil and natural gas could expose the New Zealand economy and the Taranaki region to stranding of investment and jobs, as well as lost opportunities to diversify the economy if the world takes sufficient climate action."*

- 61) The IA (section 6) does not present a thorough economic analysis that also considers the economic costs and loss of opportunities if the proposed activities are allowed to proceed.
- 62) Like Ngāruahine, we question how much of the estimated \$43 m of regional economic benefits would be retained in South Taranaki. We also warn that economic benefit analysis invariably overestimates the economic returns and understates the environmental costs. A case in point, Beach Energy was recently taken to the Federal Court for allegedly misleading shareholders with inflated production and reserves forecasts⁶⁷. The fall in the company's share price in 2020-2021 was related to a significant decline in the projected earnings from the Western Flank oil and gas reserves in the Cooper Basin⁶⁸.
- 63) It is well documented that green investments including renewable energy, efficient building, mass transit and ecosystem restoration, creates more jobs⁶⁹ than the fossil fuel industry. For example, for every £1m invested, renewables create three times more jobs than fossil fuels, and energy efficiency delivers five times more jobs⁷⁰. The provision of "59 fulltime equivalent (FTE) New Zealand staff" by Beach Energy pales by comparison. Such employment, though short-lived, would delay retraining opportunities required for a rapid transition away from fossil fuels.
- 64) The supply of additional gas from Kupe which enables major users to continue production would delay the much needed, urgent transition to renewable energy and reduction in overall energy consumption. Such delay would incur significant economic, social and environmental losses as the impacts of climate change worsen.
- 65) A just transition requires clear and consistent government signal and regulatory framework. The granting of any consents for further oil and gas drilling puts the entire planet at risk and sends the wrong signal. It creates uncertainty to businesses and investors, creating barriers to transition and stress on communities, despite the urgency clearly declared by IPCC and other international organisations. It is counter-productive to a resilient future that following the government announcement in April 2018 of no new offshore exploration^{71, 72}, existing permit holders are allowed to continue to operate and explore for new oil and gas^{73, 74, 75, 76}. There should be no more prospecting, exploration, further development or expansion of mining, as the currently operational wells are shut down over the coming decade.
- 66) Any fiscal benefits to the Crown in terms of tax, royalties, and levies would be dwarfed by the costs on climate related disasters and opportunity loss associated with delayed transition^{77, 78}. The July 2021 flooding in Westport alone incurred insurance costs of NZ\$56 million while drought costed NZ\$720 million between 2007 and 2017 (Ministry for the Environment, 2020)⁷⁹.
- 67) All credible science organisations are warning us to get off fossil fuels, urgently, not just coal but oil and gas. There is no longer an excuse to invest in fossil gas to avoid coal, especially in New Zealand which is a wealthy nation with renewable energy resources. The focus should be on rapidly reducing industrial processes that rely on fossil fuels; and investing in community-based renewable energy networks⁸⁰ to reduce demands on centralised fossil-fired power plants.
- 68) Beach Energy's argument that increased gas production would maintain wholesale gas and electricity prices is unethical, at a time of rising energy costs and inequality. What we need is a major energy and electricity market reform⁸¹ to eliminate energy hardship^{82, 83} while reducing overall energy demand, shrinking it to within ecological boundaries.

END-OF-LIFE AND DECOMMISSIONING

- 69) Our group raised the decommissioning issue during the EPA hearing re STOS' application in 2015, and argued for bonds to be required for decommissioning. At that time, the General Manager of STOS Mr Rob Jager gave this evidence: "...I don't think Shell will walk away from its obligations, either in 5 years or in 35 years... Clearly we look for as much certainty in what is otherwise an extremely uncertain environment in terms of price, in terms of demand, in terms of economically recoverable reserves that we can get to make our investment decisions," (EPA Hearing transcript Day 01, 2015)⁸⁴. Within a few months, Shell announced that it planned to review its NZ assets⁸⁵. By April 2017, Shell had begun sale of its assets, initially relinquishing its half stake in the onshore Kapuni field to Todd Energy and acquiring all of the Maui asset (Energy Stream, April 2017)⁸⁶. In March 2018, Shell announced that it had reached an agreement to sell its NZ assets to OMV for USD 578 million⁸⁷. By early 2019, the sales were completed⁸⁸.
- 70) In 2019, the Tui field was abandoned following the liquidation of Tamarind Taranaki, leaving the Crown with a decommissioning bill of over \$300 million^{89,90}. To avoid similar sagas, the government has since introduced amendments to the Crown Minerals Act and regulations around decommissioning plans⁹¹ and liability⁹². There appears to be no mention of a financial bond in any of these instruments⁹³. The process is challenging and ongoing.
- 71) It is unclear how effective these regulations and their implementation would be in ensuring decommissioning is done in a socially, culturally and environmentally acceptable manner and the costs are borne by the companies. It is clear however, that the more infrastructure installed in the environment, the harder and more expensive it would be to decommission properly, especially as the asset loses its financial value.

CLIMATE CHANGE OUR NUCLEAR-FREE MOMENT

- 72) In August 2017 during her election campaign, Jacinda Arden called climate change her generation's nuclear-free moment⁹⁴. In April 2018, the central government made a historic announcement^{95,96} of no new offshore oil and gas exploration permits. However existing exploration and mining licenses are being 'honoured' and new exploratory permits may still be issued both on and offshore Taranaki. While the government has signalled an end to new exploration, the allowance of existing exploration and mining to take place severely delays the urgent need to transition away from fossil fuels.
- 73) NZ has the obligation to deliver its commitment to the UNFCCC COP21⁹⁷ Paris Agreement and the subsequent Global Methane Pledge launched at COP 26 in November 2021 in Glasgow⁹⁸.
- 74) This year the IPCC AR6 issued yet more dire warnings:
- "In the scenarios we assessed, limiting warming to around 1.5°C (2.7°F) requires global greenhouse gas emissions to peak before 2025 at the latest, and be reduced by 43% by 2030; at the same time, methane would also need to be reduced by about a third. Even if we do this, it is almost inevitable that we will temporarily exceed this temperature threshold but could return to below it by the end of the century.*
- It's now or never, if we want to limit global warming to 1.5°C (2.7°F)... Without immediate and deep emissions reductions across all sectors, it will be impossible."* IPCC, April 2022⁹⁹.
- 75) To deliver its commitments, the effects on climate change must be considered when assessing any activities. It is irrational and irresponsible of the NZ government, through the EEZ Act, to preclude EPA from considering the effects of discharging greenhouse gases on climate change when reviewing applications for marine consents and submissions (DeVantier, 2012)¹⁰⁰. The EEZ Act must be amended to include considerations of climate change and be in line with the Zero Carbon Act.

DECISION SOUGHT

76) CJT urges you to **REFUSE** both the marine and marine discharge consent applications.

77) CJT requests the right to be heard in support of its submission. We may call expert evidence and also address the Board of Inquiry in te reo Māori (at times) during the hearing.

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