

FURTHER INFORMATION REQUESTED	RESPONSE	REFERENCE
<p>1. To understand the potential effects of the proposal in relation to the marine farm main farm and research farm sites set up, including species and operation, the following information is required:</p> <p>a) Please provide specific information on farm set-up and operations relevant to the predicted effects of the main marine farm and the research farms, to the extent that is possible at this point.</p> <p>b) The adaptive management approach needs to provide a specific process for future effects assessment(s), where required because proposed changes may result in effects that were not assessed at the time of the consent application, including when and how those will be carried out and how their findings will be used in decision making, specifically on:</p> <p>(1) Where the respective effects are acceptable, and</p> <p>(2) What level of effects mitigation and monitoring is required.</p>	<p>Additional information has been included within the AEE to describe the proposed marine farm layout, density and staging.</p> <p>Further detail regarding the proposed species and operation has also been added.</p> <p>The research sites have been removed from the current application.</p> <p>A set of proposed consent conditions has been developed which details the process for monitoring the environmental effects of farming activities and corrective actions in response to significant adverse effects.</p>	<p>Conditions 1-12</p>
<p>2. To understand the potential effects of the proposal in relation to site characteristics and site suitability, the following information is required:</p> <p>a) Physical and hydrodynamic conditions:</p> <p>(1) Please provide site-specific current data, or an estimate, appropriate for a general characterisation of hydrodynamic conditions at the main marine farm and research farm sites;</p> <p>(2) Please provide the water depth at the research farm sites;</p> <p>(3) Please provide the water temperature at the main marine farm and the research farm sites.</p>	<p>This information is provided within the application and AEE report.</p> <p>A model has been developed by DHI of the Bay of Plenty seawater space (including the proposed site) – and a draft report outlining these conditions. The purpose of this report is to</p> <ul style="list-style-type: none"> a) determine the current environment, and b) a monitoring regime developed to ensure shifts in environmental circumstances are tracked and considered 	<p>Physical and hydrodynamic conditions – Section 3.2</p>
<p>b) Benthic environment:</p> <p>(1) A scientifically robust assessment of the benthic receiving environment of the main marine farm and the research farm</p>	<p>The large size of the marine farm (10,000 ha) and water depth makes it impractical to undertake a comprehensive characterisation of the benthic environment within the entire site. The DML bathymetric survey and limited grab samples provide an indication of the benthic environment within the farm and the absence of biogenic or</p>	<p>Appendix 6 – DML Survey</p> <p>Appendix 7 – Ecological Assessment Review</p>

<p>sites, relevant and proportionate to the nature and intensity of predicted effects of the proposed marine farm activities;</p> <p>(2) Additional information on the DML survey, including but not limited to the following:</p> <p>(a) Description of methods (following good scientific practice);</p> <p>(b) Description of grain size and multibeam data (following good scientific practice).</p> <p>(3) A description, and relevant reports, of other benthic information used to inform the assessment of environmental effects (AEE).</p>	<p>sensitive habitat and dominance of soft sediments across the sites indicates suitability for the development of mussel and seaweed aquaculture. The proposed adaptive management framework and associated consent conditions have been designed to require a site-specific benthic be undertaken prior to marine farming activities commencing to verify the findings from the initial survey.</p> <p>A review of available information regarding the benthic environment has been undertaken by Professor Chris Battershill and a memorandum prepared which is appended to the resource consent application.</p>	
<p>c) Water quality:</p> <p>(1) A copy of Longdill et al. (2006);</p> <p>(2) A description of the chlorophyll concentration in the areas of, and surrounding the main marine farm and research farm sites (following good scientific practice).</p>	<p>A copy of Longdill et al is provided separately.</p> <p>The average chlorophyll concentrations in the eastern Bay of Plenty waters is discussed in the application documents.</p> <p>DHI's Report also provides detailed phytoplankton modelling, including an assessment of the effects mussel farming will have on the phytoplankton concentrations over time.</p>	<p>Sections 3.2.5 and 7.3.4</p>
<p>d) Marine mammals:</p> <p>(1) A description of the marine mammals in the areas of and surrounding the main marine farm and research farm sites (following good scientific practice).</p>	<p>The application identifies marine mammal species that have been recorded within the eastern Bay of Plenty waters.</p>	<p>Section 3.3 and 7.3.1</p>
<p>e) Seabirds:</p> <p>(1) A description of seabirds, and if relevant for the research farm sites, shorebirds, in the area of and surrounding the main marine farm and research farm sites (following good scientific practice).</p>	<p>The application identifies marine seabird species that have been recorded within the eastern Bay of Plenty waters.</p>	<p>Section 7.3.3</p>
<p>f) Aquaculture suitability map prepared by Fisheries New Zealand:</p> <p>(1) Information about the method used for creating this map;</p>	<p>The aquaculture suitability mapping was undertaken for Fisheries New Zealand and supersedes the Coastal Values and Uses map series prepared by the Bay of Plenty Regional Council. No information has been provided regarding the information sources for the map, however it is noted that there are similarities with BOPRC's</p>	<p>Section 3.4</p>

<p>(2) Reasons why the identified areas are considered inappropriate for aquaculture;</p> <p>(3) Reasons why the applicant considers the locations where their marine farm sites (main marine farm and research farm sites) overlap with areas considered unsuitable by Fisheries New Zealand, appropriate;</p> <p>(4) A map to show the main marine farm and research farm sites overlaid on the aquaculture suitability map prepared by Fisheries New Zealand.</p>	<p>Coastal Values and Uses Maps, therefore it is likely that the Fisheries NZ map uses similar data sources, particularly in respect of significant ecological values, shipping lanes, protected marine areas and reef habitats.</p> <p>The extent of the marine farm has been modified to avoid encroaching into the commercial shipping buffer area (identified as an area inappropriate for aquaculture).</p> <p>A map has been added to the application to show the proposed marine farm overlaid on the aquaculture suitability map.</p>	
<p>4. To understand the potential maritime and navigational safety effects of the proposal, the following information is required:</p> <p>a) Please provide Marine Chart details or waypoints (DDMMSSS) for the proposed marine farm and research sites (proposed site overlaid onto a Marine Chart) (waypoints for the marine farm corners and mobile sites).</p> <p>b) Please provide further information on vessel activity in the area, of the proposed marine farm. Vessel's regularly use and transit the area and there is a significant transit lane from Whakatāne to East Cape (see Figure 1). It is unclear from the information provided in the application whether the significant transit lane passes through the marine farm or is north of the marine farm.</p> <p>c) Please provide further information on vessel activity (use and transit) along the area of the proposed research sites.</p> <p>d) There is an expectation that vessel traffic in the area will increase due to vessels launching at Ōpōtiki and transiting along the coast. As this may be in poor visibility conditions consideration needs to be given to ensuring the marine farm and research sites are visible on radar. Please address and provide comment.</p> <p>e) The site needs to be made visible to all vessels while under construction. Please provide comment on proposed visibility during construction.</p>	<p>Waypoints for the marine farm have been provided in the application document.</p> <p>Information on vessel transit within the marine farm area has been included in the application.</p> <p>The marine farm will incorporate navigational aids in accordance with the Maritime New Zealand Marine Farm Guidelines: Navigation Safety. These guidelines state that offshore marine farms should be provided with a radar reflector (active or passive) on Cardinal, Lateral or Special Marks which are positioned at least 2 metres above water level and detectable by radar for a minimum of 4 nm in all sea conditions reasonably anticipated at the site.</p>	<p>Section 3.1.1</p> <p>Proposed consent conditions 30 - 35</p>

<p>f) The site will need to meet Maritime NZ and industry best practice upon completion. Please provide evidence to demonstrate the marine farm will comply.</p>		
<p>g) Please provide clarification on how the AtN's will be monitored and replaced.</p> <p>h) Please provide detail on how Aton's especially lights will be routinely checked to confirm that they are operational.</p> <p>(1) Points g) and h) should be addressed / included in the Adaptive Management Planning Framework.</p>	<p>It is anticipated that the monitoring and maintenance of aids to navigation will be addressed as part of the ongoing operational management of the marine farm.</p>	<p>Conditions 31 and 32</p>
<p>5. To understand the potential landscape and natural character of the proposal the following information is required:</p> <p>a) Please provide a landscape and natural character assessment prepared by a suitably qualified and experienced landscape architect / professional. This assessment should cover both the marine farm and the research sites and include but not be limited to the following:</p> <p>(1) Natural character effects;</p> <p>(2) Landscape effects;</p> <p>(3) Visual effects;</p> <p>(4) Cumulative effects;</p> <p>(5) Effects in relation to statutory provisions.</p>	<p>An assessment of natural character and landscape effects has been provided in the AEE submitted with the application. Due to the substantial distance from shore, it is anticipated that the effects of the proposed marine farming structures on natural character and landscape values will be no more than minor. This is consistent with assessments of the existing Eastern Seafarms marine farm, which is located a similar distance from land.</p>	<p>Section 7.3.2</p>
<p>6. To understand the potential biosecurity related effects associated with the proposal the following information is required:</p> <p>a) A description of existing marine pests in the area of and surrounding the main marine farm and research farm sites.</p> <p>b) A copy of the Greenshell Mussel Industry Environmental Code of Practice 2007 and the New Zealand Mussel Industry National Spat Transfer Programme (NZMIC 2002).</p>	<p>A draft Biosecurity Management Plan has been prepared and is appended to the application. In addition, a set of biosecurity consent conditions have been proposed.</p> <p>A copy of the Code of Practice is supplied separately.</p> <p>Rule 2 of the Regional Pest Management Plan requires that:</p> <p><i>"All aquaculture equipment (including ropes and floats) used within Bay of Plenty waters must not have been used outside Bay of Plenty waters or used within a known pest incursion zone in the Bay of Plenty. This is to support the progressive containment of clubbed tunicate and Mediterranean fanworm."</i></p>	<p>Proposed consent condition 33.</p>

<p>c) Please review Rule 2 of the Regional Pest Management Plan 2020-2030 and confirm compliance with this rule. All aquaculture equipment (including ropes and floats) used within Bay of Plenty waters must not have been used outside Bay of Plenty waters or used within a known pest incursion zone in the Bay of Plenty. This is to support the progressive containment of clubbed tunicate and Mediterranean fanworm.</p> <p>d) There is a risk that vessels coming from outside the Bay of Plenty Region could bring in marine pests. To reduce this risk it is recommended that only Bay of Plenty vessels are used – no vessels from other regions. Please address this risk.</p> <p>e) Please address the following:</p> <p>(1) All spat and stock used on the farm should be captured within the Bay of Plenty region. If spat are captured outside the Bay of Plenty region there is a significant risk of bringing in marine pests. Please confirm if spat and stock is proposed to be imported from outside the Bay of Plenty Region and if so, provide justification and mitigation methods to avoid the risk of bringing in marine pests.</p> <p>(2) There is potential for smothering of reef habitat at both the marine farm and research site locations. Please provide details and mitigation methods proposed for avoidance of natural reef habitat smothering.</p> <p>f) Draft Biosecurity Management Plans (see point d) below under draft plans).</p> <p>g) Please review the following, in regards, to the proposed biosecurity condition in Table 10 of the AEE and respond accordingly:</p> <p>(1) The conditions should include:</p> <p>(a) Only new infrastructure, nothing treated;</p> <p>(b) Only introduce spat and stock from within the Bay of Plenty, otherwise it can't be guaranteed that the stock or spat haven't been gathered from an area with marine pests. If an inspection is carried out microscopic marine pests will not be able to be seen at the time of inspection. These pests can</p>	<p>A consent condition is proposed to this effect.</p>	
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<p>grow very quickly and then become established in the marine farm;</p> <p>(c) Marine pest dive surveillance – inspection of all lines and structures should be carried out at least every six months and results reported to the Bay of Plenty Regional Council;</p> <p>(d) Other species to include information for vessel operators are – the clubbed tunicate (<i>Styela clava</i>), Australian droplet tunicate (<i>Eudistoma elongatum</i>, <i>Pyura doppelganger</i>, <i>Charybdis japonica</i>), Chinese mitten crab (<i>Undaria pinnatifida</i>).</p>		
<p>7. To understand the potential effects relating to the proposal, the following information is required:</p> <p>a) Please provide a cumulative effects assessment for the marine farm and the research sites.</p> <p>b) The assessment provided does not consider amenity values/recreational effects associated with the research sites. Please provide this assessment.</p>	<p>This information is provided in the revised application where applicable.</p>	<p>See Section 7.3.2 – Fisheries for discussion on recreational fishing effects.</p>
<p>c) Please provide the following information relating to the research farm sites:</p> <p>(1) A map of the research farm site locations, including any sites farms may be relocated to;</p> <p>(2) The minimum distance between the research farm sites and the shoreline;</p> <p>(3) A list of species proposed to be farmed at the research farm sites (to the extent possible at this point);</p> <p>(4) A description of the marine farming methods to be used at the research farm sites (to the extent possible at this point);</p> <p>(5) Information on when they will be relocated to a new site;</p> <p>(6) Minimum distances between each of the research farm sites;</p> <p>(7) How long will the research farm sites remain in one place;</p> <p>(8) Information on the structures proposed at the research farm sites;</p>	<p>N/A - research sites have been removed from the application.</p>	

<p>(9) Navigational and maritime effects (see point c) under maritime and navigational safety further information request items);</p> <p>(10) Cumulative effects (see point 7 a) above);</p> <p>(11) Amenity values / recreational effects (see point 7 b) above)</p>		
<p>Please provide the following draft plans (see section 3.6 of the attached memo from Dr Hilke Giles):</p> <p>(1) Environmental Management and Monitoring Plan, including but not limited to the following:</p> <p>(a) Structure details, including the anchors, for the main marine farm and research farm sites;</p> <p>(b) Design calculations for the main marine farm and research farm sites;</p> <p>(c) Layout plan(s) / detail(s) for the main marine farm and research farm sites;</p> <p>(d) Monitoring proposal for the main marine farm and research farm sites, including details on what is going to be monitored.</p> <p>(2) Biosecurity Management Plan specific to each product being farmed (mussels, oysters, scallops, seaweed, research site products) (e.g. oyster farm differ from mussel farms). These plans should include but not be limited to the following:</p> <p>(a) Biosecurity risks and pathways;</p> <p>(b) Vessel maintenance schedule (antifouling at least every two years);</p> <p>(c) Collection and management of spat and stock;</p> <p>(d) Marine pest surveillance (inspecting all lines and structures should be carried out at least every six months) and reporting to the Bay of Plenty Regional Council;</p> <p>(e) Marine pest incursion response;</p>	<p>Additional information has been included in the resource consent application documents along with a draft biosecurity management plan and set of proposed consent conditions which address these matters.</p>	<p>See section 4.1 and 4.3 and proposed consent conditions 1 – 6.</p>

<p>(f) Avoiding biosecurity risks during harvesting processes.</p> <p>(3) Marine Mammal Management Plan, including but not limited to the following:</p> <p>(a) A description of the marine mammals in the areas of and surrounding the main marine farm and research farm sites (following good scientific practice);</p> <p>(b) Draft details on the procedure plan which addresses the management of marine mammal entanglement or injury resulting from the operation of the main marine farm and research farm sites.</p>		
<p>e) Please provide an assessment of NZCPS Policy 11 based on appropriate site-specific environmental information.</p>	<p>Addressed in resource consent application documents to the extent possible based on the available information.</p>	<p>See Appendix 3</p>
<p>f) Consent conditions specifying the expertise required on the technical advisory panel (Sea Farms Technical Advisory Panel, SFTAP), purpose and terms of reference are yet to be development. Please provide respective draft conditions.</p>	<p>Addressed in proposed consent conditions</p>	<p>See proposed consent condition 24.</p>
<p>g) It is unclear what the first column in Table 10 of the assessment of environmental effects represents. Actual effects won't be known until the marine farms are in place. Please clarify whether this column lists potential or predicted/expected effects.</p> <p>h) The last column of Table 10 in the assessment of environmental effects describes the degree of effects in RMA terminology (in all instances 'minor, but the column is empty for some effect types). The effects assessment in section 7.3 does not provide a systematic assessment of effects in terms of the RMA descriptors and it is therefore not clear on what basis they have been derived. Please provide supporting information for choice of RMA effects descriptors.</p>	<p>Table 10 has been updated to address these comments.</p>	
<p>i) Please address Item 3.6 (mitigation and monitoring) in Dr Hilke Giles memo attached including providing commentary on Policies AQ 4 and 10 of the Regional Coastal Environment Plan.</p>	<p>Addressed in proposed consent conditions.</p>	<p>See proposed consent conditions 18 - 21</p>

<p>j) Please advise what the contingency plan is for if buoys and spat ropes get loose. Has any modelling been done of currents to see where buoys and spat ropes could end up if they do get loose?</p>	<p>Addressed in proposed consent conditions.</p>	<p>See proposed consent conditions 33, 40 and 41.</p>
<p>k) Please address the issue of odour – this is particularly relevant for the research farm sites. What will be done to manage odour at these sites if odour issues do arise?</p>	<p>Not expected to be an issue. Odour is associated with degradation (processing) rather than farming activities which occur within the water.</p>	