

Kenepuru & Central Sounds



Kenepuru & Central Sounds Residents Association Inc.

Manager, Resource Consents
Marlborough District Council
PO Box 443
Blenheim 7240

Email: mdc@marlborough.govt.nz

Ross Withell

President KCSRA

2725 Kenepuru Road

RD 2

Picton 7282

email: president@kcsra.org.nz

WWW: kcsra.org.nz

15 January 2018

Dear Sir/Madam

**Kenepuru and Central Sounds Residents' Association -
Submission on Resource Consent Application U170907
P H Redwood & Company Limited
Forsyth Bay**

I write in my capacity as Chair of the Kenepuru and Central Sounds Residents' Association Inc.

1. Introduction

- 1.1 The Association was established in 1991 and currently has approximately 240 household members who live full time or part time in the Kenepuru and Pelorus Sounds. The Association's objects include, among others, to coordinate dealings with central and local government and promote the interests of residents of Kenepuru Sound and adjacent areas and to promote and act in the best interests of residents, ratepayers and persons associated with the Kenepuru and Central Sounds area.
- 1.2 A few years ago members became concerned at the seemingly endless tide of marine farm applications in the Kenepuru and Pelorus Sounds without regard to the cumulative adverse impacts on what is often referred to as a unique and iconic New Zealand environment. We decided to make a principled evidence based stand. Consequently the Association has built up a sound knowledge and understanding of issues concerning the unsustainability of some marine farming in the Sounds. Most notably the Association has identified particularly egregious mussel farm applications and successfully opposed them at Commissioner led hearings. The Association has then participated in successfully opposing appeals to the Environment Court (and beyond) by those unsuccessful mussel farm applicants.¹

¹ *RJ Davidson Family Trust v Marlborough District Council* [2016] NZ EnvC 81, *Clearwater Mussels Limited & KJB Marine Farms Limited v Marlborough District Council* [2016] NZ EnvC 21 .

Kenepuru & Central Sounds Residents Association Inc.

President	Ross Withell
Vice President	Andrew Caddie
Secretary	
Treasurer	Stefan Schulz
Chairman Roding Committee	Robin Bowron

president@kcsra.org.nz
vicepresident@kcsra.org.nz
secretary@kcsra.org.nz
treasurer@kcsra.org.nz
roding@kcsra.org.nz

- 1.3 We submit that these cases as footnoted below (hereafter referred in this submission as the *Davidson Case* and the *Clearwater Case* respectively) are good and binding authority on the hearing panel that the cumulative adverse impacts of mussel farm applications on landscape and natural character values, navigation and incremental and cumulative loss of habitat for the endangered species the King Shag, cannot be ignored.
- 1.4 As noted the Association is concerned at the continuous push from mussel farmers to expand their activities through acquiring new public water space. Like Beatrix Bay, Forsyth Bay is, with some **36**-mussel farms, unfortunately a prime example of what some refer to as the **Tragedy of the Commons**. “*If I do not make a grab for extra area then someone else will, so I may as well and whilst yields will decline overall I will get a marginal increase*”. This approach cannot, we submit, be allowed to go on unchallenged. What is also notable about this application is that this is another attempt by the applicant to seek to acquire the same additional area.
- 1.5 To further illustrate the point above we refer to the saying that “*every drop of water into a full jug overflows*”. This application is such a drop.

2. Decline Application

- 2.1 The applied for farm extensions and renewal appear to extend more than 200 meters from shore and as such the application would appear to be for a non-complying activity. The Association is of the view for the reasons set out in this submission that the application cannot meet the statutory threshold for a non-complying activity under Section 104D of the Resource Management Act 1991 (RMA) and that the application should be declined.

3. Request to Appear

- 3.1 The Association confirms that it would like to present/talk to this submission at the public hearing and will be represented.

4. Some Background Comment on this Application

- 4.1 We found aspects of the application quite difficult to follow. For example we submit that the history of the farms for which the application seeks a significant extension has been presented in an opaque manner not helped by some apparent errors on the relevant MDC smart map. Accordingly, we thought it would be useful if we set out what the Association sees as the relevant overview points.
- 4.2 The application concerns two separate but adjacent areas granted to the applicant around 1990 as farm 8136 and 8135. The current consented area is 3.0 hectares for farm 8136 and for farm 8135, 4.55 hectares. Farm 8136 sits “above” or roughly north of farm 8135. The farms are located adjacent to Forsyth Island but effectively form part of Forsyth Bay (there being but a small strait (Allen Strait) between the island and the rest of the embayment. The applicant in 1999 made an **unsuccessful** application to extend the farm 8136.
- 4.3 As far as we can ascertain this application now seeks to extend the total area of the two farms from the existing 7.55 hectares to a total of 13.28 hectares – a massive **75% increase**. For some of the extra area now sought by the applicant this will be their **third attempt**. The applicant also seeks an extension of term for another twenty years.

5. Structure of this Submission

- 5.1 The Association has a number of concerns with this application, some overarching and others more specific. Given the findings of the *Davidson Case* with respect to the need to avoid further loss of habitat of the endangered sea bird - the New Zealand King Shag - and the proximity of the proposed extensions to a significant King Shag breeding site (Duffers reef) we deal with this aspect first. We then look at cumulative impact issues more generally and then touch on cumulative ecological impacts specific to mussel farms. Finally we touch on other various matters such as the adverse impact on recreational users.

6. Loss of King Shag habitat

- 6.1 The Association was stunned to see that the applicant has made no mention or reference to the King Shag in its application nor does the supporting environmental impact assessment from Davidson Environmental Limited (**DEL**). Presumably the later omission reflects the applicant's direction to DEL.
- 6.2 If not, we find this omission quite strange given that our understanding is that the sole director of DEL is also a Trustee of the unsuccessful mussel farm applicant in the *Davidson Case*. In that decision the more than minor adverse impacts on the King Shag from loss of habitat from additional mussel farm space was thoroughly canvassed first at the Environment Court and then again by the subsequent (unsuccessful) appeal by the RJ Davidson Family Trust to the High Court. We commend to the Hearing Panel the decision of Judge Jackson in the *Davidson Case* and in particular his commentary on the King Shag in the context of a mussel farm application. For example see paragraphs 161 to 169 and 299 to 300 of the decision of the Davidson Case.
- 6.3 Nevertheless given the applicants apparent avoidance of this aspect, it seems necessary to briefly reiterate some facts about this nationally endangered and, we understand to tangata whenua, iconic sea bird species, which lives only in the Marlborough Sounds. The head count in 2015 was an estimated 839 birds and a total of 187 breeding pairs (**See Reference point G**). The main breeding colonies were North Trio Island and Duffer's reef. Duffer's reef extends out from Forsyth island, a mere **3.25 km** north of Pigeon Bay and the application under consideration. We also briefly note as follows:
- All marine areas (including benthic habitats) within the foraging range of King Shags should be considered significant habitat in terms of being critical for the survival of the endangered King Shag population.
 - King Shags forage up to 24 km distance from a colony, dive to depths up to 50 m and fly predominantly between the southern and western sectors from the main colonies.
 - The International Union for the Conservation of Nature has a clear protocol on how to identify feeding areas. Feeding areas are the spatial distribution of known, inferred or projected sites of occurrence. An area of 1300 sq km, with water depths up to 50 meter is defined as King Shag feeding habitat.
 - Area-based conservation for species is an integral part of the activities of the IUCN Species Survival Commission, since protection of threatened populations requires protection of the habitat in which they occur.
 - The whole King Shag feeding habitat is promoted as Important Bird Area as part of a nationwide assessment. Forsyth Bay with its King Shag colony is in the middle of this Important Bird Area.

- Forsyth Bay provides habitat for flatfish species (adult and juvenile) which are major components of the King Shag diet and potentially critical to the species survival.
- Marine surveys and studies record King Shags foraging in bays with high densities of marine farms (Forsyth, Beatrix and Admiralty Bays), but no individuals have been recorded foraging within marine farms.
- Mussel farms create a modest fish assemblage with minimal or no overlap with the prey fish species of the King Shag.
- In the 1970's aquaculture started experimentally in the Marlborough Sounds. Year on year it has expanded, predominantly in the Pelorus Sound. Many open areas in the embayment's along the Waitata Reach, where King Shags were feeding before, are now part of the consented areas of marine farms and thus no longer feeding habitat for the King Shag.

6.4 The direct effect of expanding two marine farms at this location in Forsyth Bay will, we submit, be one of foraging habitat displacement for the King Shag. The proposed extension area will no longer be available to foraging King Shags. Actually, the whole area affected by the depositional footprint of the farms is unlikely to support King Shag prey fish species. Policy 11 of the New Zealand Coastal Policy Statement (NZCPS) and the *Davidson Case* it is submitted are quite clear about the need to avoid adverse effects on threatened or rare indigenous species.

6.5 We submit that the decision in the *Davidson Case* requires that those adverse effects from this application need to be assessed in combination with the cumulative effects of all the other marine farms in Forsyth Bay. These cumulative effects are considered, it is submitted, to be more than minor with respect to the King Shag habitat, and particularly acute given the close proximity of the Duffer's reef colony.

6.6 In passing we note this site has been identified as within a nationally significant area of ecological value. Regretfully only the breeding colonies for the King Shag have been identified as sites of ecological significance in the Davidson 2011 report of Ecologically Significant Marine Sites (**See Reference point E**). For some reason it was thought appropriate to exclude the known King Shag foraging areas from this classification. The Association hopes the MDC will take rapid steps to correct this glaring policy oversight.

6.7 We appreciate that the applicant and their advisers may believe that the loss of several hectares of habitat will not trigger the collapse of the species. However, in the *Davidson Case* (concerning a new mussel farm in Beatrix Bay of relatively similar size to the extension applied for here) the Environment Court ruled on this issue of uncertainty regarding the impact on the King Shag and noted at paragraph 280 :

However, the prediction remains: potentially the King Shag could be driven to extinction by the accumulated and accumulative effects of mussel farms which are part of the environment in Beatrix Bay. That is a low probability event, but extinction is indubitably a significantly adverse effect which would be exacerbated, to a small extent, by the Davidson proposal

6.8 This finding was challenged as an error of law in the High Court. The High Court found no error of law¹. Accordingly we submit that the same reasoning applies to this proposed expansion of the two mussel farms in Pigeon Bay and thus the application should be declined accordingly.

¹*R J Davidson Family Trust v Marlborough District Council [2017] NZHC 52, at para 150.*

7. The Association's Concerns – Cumulative Impacts Generally

7.1 The Association is concerned at the continuing flow of applications for additional marine farming space within the Marlborough Sounds without any assessment of cumulative environmental impact. This is most concerning in intensively farmed areas such as Forsyth Bay. Whilst the Association is primarily concerned with the material adverse cumulative effects of the existing level of mussel farm development in the Forsyth Bay area on the likes of the King Shag, this aspect is much wider than that e.g. on natural character and landscape values. We refer to the Ministry for the Environment commissioned paper on cumulative effects (**See Reference point A**) in the context of the RMA and make the following observations by way of summary:

- Cumulative effects include the known and potential effects of the activity in question added to the known and potential effects of other consented activity (page 6).
- Cumulative effects can and must be considered when determining a resource consent application (page 6).
- There are cumulative effect limits on all natural character and landscape values whether or not they are considered outstanding or features (page 11).
- “*One only need visit the Marlborough Sounds...to wonder whether we have....exceeded the sustainable limit of some landscape resources...*” (Page 14).

7.2 The Association submits that, unfortunately, this application highlights in a very negative way these and related issues. As noted this is the third application for an extension for these farms in Pigeon Bay. Through a process of “creep” these two farms will have increased in area (if this application is successful) from the original grant of 6 hectares to 13.283 hectares for the two farms - more than double (**See Reference point B**).

7.3 Pigeon Bay is a small bay off Forsyth Island with only these two mussel farms within its boundaries. If this application is successful the two mussel farms will cover an area of 13.283 hectares. Accepting the applicant's figure of 32.3 hectares as the size of the entire Pigeon Bay sea surface area, then over 42% of the water space would be taken up by mussel farms, completely and unacceptably, we submit, dominating the natural character, sea views and the ecology of Pigeon Bay.

7.4 The Association is concerned at the seemingly limitless expansion of mussel farms that this application and others like it represent. **This can only be addressed by reference to the cumulative environmental impact of all existing mussel farm activity - aesthetically, recreationally, navigationally, and ecologically.** If the cumulative impact of existing activity is already at or above acceptable thresholds then all of the impact of an addition to the area of an existing farm will be of an unacceptable level, irrespective of how it stands relative to the level of existing activity.

7.5 The Association is of the view that the cumulative impact of marine farming in the Forsyth Bay embayment and in particular Pigeon Bay is clearly already at or above acceptable levels from an aesthetic, recreational, navigational and ecological perspective. As such any further mussel farm applications for the embayment, including this application, should it is submitted be declined.

8. Other Ecological Cumulative Impact Examples

8.1 The Association notes the comments in the DEL report at paragraph 5.3.2 (Productivity) it is submitted, that the DEL report completely misses what the Zeldis report is actually revealing. In short, Zeldis reports a small correlation between crop yields and weather patterns. It does not address average crop yields over time. These have (anecdotally)

declined as farming intensity has increased. Moreover, Zeldis demonstrates nutrient limitation in the Sounds – a factor strongly suggesting that nutrient depletion by mussels can significantly suppress indigenous activity. This outcome is particularly so in La Nina weather patterns.

- 8.2 We also note the DEL statement that there has been no data presented to show that the ecological carrying capacity of the Sounds has been reached. Ecological Carrying Capacity **cannot** be measured at a Sounds wide level. Ecological carrying capacity is measured by reference to ‘areas of influence’. That is, by reference to discrete areas of the Sounds that are actually effected by the activity. There is ample data and tools available, such as the Aquaculture Stewardship Council standards and the NIWA Biophysical Model for the Pelorus Sound, showing that parts of the Pelorus Sound are being farmed beyond ecological carrying capacity. That said, we acknowledge that the NIWA Biophysical Model does not highlight Pigeon Bay as seriously effected by existing marine farm activity. We look forward to discussing these and other productivity issues at the hearing. If the hearing panel requires copies of either report/paper we suggest that MDC will be able to supply the same, otherwise we would be pleased to assist.
- 8.3 Mussel farming has material adverse benthic impacts. Mussel farms can deposit between 250 and 400 tonnes of material onto the sea floor per hectare per annum (**See Reference point D**) and much of the Bay’s more productive photic zone is now impacted in this way. Bearing in mind that it has been established that depositions from mussel farms can be found up to 50m from the edge of a farm (dependent on flow rates) then we estimate that a significant part of the Forsyth bay area benthos is now adversely impacted by mussel farm fouling and biodiversity changes. Any additional development imposing yet further effects on the Bay in this manner is not, it is submitted, appropriate development.
- 8.3 For another example of the adverse impacts on the benthic community from intensive mussel farming we draw the hearing panels attention to the photo (Plate 7) on page 22 of the DEL report. This shows a number of mobile benthic predator the sea star *Coscinasterias muricata*, often colloquially referred to as 11 armed sea stars. See also photo site 9 at page 28 of the DEL report to similar effect. A scientific study has found that the incidence of these creatures in areas with mussel farms is up to **39 times** that compared to areas without mussel farms¹. This is, it is submitted, a significant and adverse biodiversity change.
- 8.5 There is thus both recent scientific and anecdotal evidence of a more than minor cumulative and negative material ecological impact on these highly valued inshore areas from existing levels of mussel farming activity.
- 8.15 It is telling that both the application and the DEL environmental assessment report are silent on these matters. A precautionary approach should be adopted. The appropriate response is to decline the application entirely.

9. Cumulative Landscape and Natural Character Effects

- 9.1 These farms are in a small bay off Forsyth Island, which as a whole, is an area of outstanding natural landscape value as identified in the MSRMP² and therefore poses a further material obstacle for the applicant to satisfy as a non-complying activity under Section 104D of the RMA. See also the requirements of Policy 13 (Preservation of

¹Inglis, G.T.; Gust, N. 2003. Potential indirect effects of shellfish culture on the reproductive success of benthic predators. *Journal of Applied Ecology* 40: 1077–1089.

²The current provisions of the MEP as to Natural Character and Landscape have generated significant controversy and as at writing hearings on this aspect had yet to commence. However, even under the draft MEP Forsyth Island has been identified as an area of high natural character.

natural Character), 14 (restoration of natural Character) and 15 (Natural features and natural landscapes) of the NZCPS.

- 9.2 The existing level of mussel farming in Pigeon Bay is generally regarded by many visitors to the area to dominate the landscape/seascape interface of this small bay. The Association's view is that this already beyond an appropriate level of development from a visual amenity perspective. Further, most landscape and natural character experts agree that landscape values of Forsyth Bay are materially reduced by the extensive level of mussel farm development around its coastline.
- 9.3 This is borne out by the fact that in 2000 an application for a 1.955 ha extension of farm no. 8135 as well as for a new 2.363 ha farm 8609 in Pigeon Bay were both refused on the grounds of adverse effects on scenic and recreational values (See Reference point F). The proposed extension of farm 8135 in this application overlaps in part the area refused in 2000.
- 9.4 In accordance with cumulative impact principles and the requirements of the NZCPS, no further development is appropriate where the threshold for adverse landscape or natural character impact is already exceeded as, we submit, is the case here and thus provides suitable grounds to decline the application.
- 9.5 We also note that the adjacent Forsyth Island is rated as Outstanding Natural Feature and Landscape (ONFL) under the proposed Marlborough Environment Plan. The water space at issue here is immediately adjacent to the ONFL and is clearly only excluded because of the existing marine farm development. This means, it is submitted, that the existing marine farm development is adversely effecting the seascape values of what would otherwise be part of an ONLF. Further development simply exacerbate this and is thus inappropriate development.

10. Legal Relevance of Cumulative Impacts

- 10.1 The Association submits that the RMA requires regard to be had to cumulative impacts when assessing marine farm applications (refer Reference Point A). When assessing a resource consent application Section 104 of the RMA requires a consent authority to, among other things, to have regard to environmental standards, regulations, national policy statements, the New Zealand Coastal Policy Statement (NZCPS), the Marlborough Policy Statement (MPS), as well as the Marlborough Sounds Resource Management Plan (MSRMP).
- 10.2 The first part of Objective 1 of the New Zealand Coastal Policy Statement ('NZCPS') states:
- "To safeguard the integrity, form, functioning and resilience of the coastal environment and sustain its ecosystems, including marine and intertidal areas, estuaries, dunes and land, by:**
- *maintaining or enhancing natural biological and physical processes in the coastal environment and recognising their dynamic, complex and interdependent nature.."*
- 10.3 Policy 3 of the NZCPS requires the adoption of a ***precautionary approach*** towards proposed activities whose effects on the coastal environment are uncertain, unknown, or little understood, but potentially significantly adverse.

10.4 As noted Policy 11 of the NZCPS is particularly relevant to the likely adverse impacts of this application on the threatened King Shag.

11. Recreational and Amenity Impacts

11.1 The general area is a popular recreational spot, indeed members have expressed concern that the proposed development will adversely impact on favoured fishing spots. As the applicant acknowledges, immediately adjacent to the farms is a holiday camp with a toilet. Sea views from the beach will be significantly degraded and compromised by the placement of the new farm structures. Further we submit the proposal will seriously impede access to the beach and foreshore. We note that these access and loss of amenity issues formed part of the reasoning to decline earlier proposals to extend farm 8135 and a related farm 8609. As we see it nothing has changed.

12. The Association's Position

12.1 The Association submits that where the cumulative impact on indigenous ecological systems of existing marine farms in an area is already at unacceptable levels then cumulative impact principles dictate that any further such activity cannot be permitted. This outcome follows it is submitted from the requirements of the NZCPS, the MSRMP and the MRPS.

12.2 The Association also submits that the same applies for aesthetic, recreational, navigational and other negative amenity impacts from further marine farm activity in already heavily farmed areas. As we hope to be making clear, the Association believes that Forsyth Bay and certainly Pigeon Bay has passed this point.

12.3 The Association believes it unfortunate that the mussel farming industry has been enabled to evolve without consideration of cumulative impact. The Association submits that this is not a basis on which the mussel farming industry within the Marlborough Sounds should continue to evolve. Nor is it a basis upon which this application can be properly considered. In other words, the Association submits that the Applicant has to demonstrate that the existing cumulative effects are minimal. The Applicant has not done so and given, we submit, that the evidence re the likes of the King Shag as accepted by the Environment Court in the *Davidson Case* is to the contrary, nor can it do so.

13. Other Specifics of the Subject Application

13.1 With regard to other specifics of the subject application the Association also makes the following submissions:

- The applicant notes that it runs a processing plant for mussels and clams which employs 30 staff. The implication somehow being that if it does not receive the extensions sought this will have a major impact on its processing operations. The applicant states that 50% of the factories mussel supply come from these two existing farms. This seems a little surprising given the number of (presumably) full time staff. Unfortunately the applicant has not supplied sufficient data as to the operation of this business to objectively assess this aspect which seems unfortunate. For example what are the yields from the existing farms supplying the factory, what is the current processing throughput of the processing plant, how much is clams and how much is mussels, how much supply comes from non applicant owned farms and so on. If the panel considers this a significant aspect of the application then we suggest the applicant be required to supply more detail as suggested so it can be discussed further at the hearing.

- The Association does not accept the applicant's propositions that existing marine farms mean that further marine farms or extensions to existing ones will have only a minor marginal impact. The logical extension of such propositions is limitless sprawl. As noted, the Association's position is that a proper assessment of environmental impacts is a cumulative one. If already at or above acceptable levels then no further activity can be permitted. In other words, each extra drop of water into a full jug overflows.
- The MDC expert ecologist witness in the Clearwater Case (Dr Stewart) also made some pertinent comments as to the limited usefulness of drop camera images in mussel farm applications (**See Reference point C**). In any event we are surprised that DEL saw fit in its report supporting the application to make no comment as to the obvious infaunal activity evident in the benthos from his drop camera images that will be covered by depositions in due course should the application be granted. The DEL report notes a nearby reef and apart from asserting that there should be no impacts from the mussel farm, saw fit not to confirm that assertion by any video or other images notwithstanding that reef formations are extremely important environmental areas.

14. Conclusion

The Association is of the view that the application fails the discretionary activity criteria of the Marlborough Sounds Resource Management Plan. It also offends against the objectives and policies of the New Zealand Coastal Policy Statement and the Marlborough Regional Policy Statement. It stands to have a more than minor environmental impact and fails the tough legislative policy threshold as prescribed by sections 104D of the RMA.

As such the Association submits the application **should be declined**.

We understand that MDC should have ready access to all the references cited but if that is not the case please let us know and we can provide the same.

Yours faithfully

Ross Withell



President

Kenepuru and Central Sounds Residents' Association

c/- 2725 Kenepuru Road, RD 2, Picton 7282

Email president@kcsra.org.nz

cc Smart Alliances Ltd

Attn. Sally Neal

10 High Street,

Blenheim 7201

Email sally@smartalliances.co.nz

References

- A. “When is Enough, Enough- Dealing with Cumulative Effects under the RMA” By Phillip Milne, Partner, Simpson Grierson (2008). A paper commissioned by the Ministry for the Environment.
- B. Data obtained from Marlborough District Council sources at <http://maps.marlborough.govt.nz/> .
- C. Evidence of Dr B. Stewart in *Clearwater Mussels Limited & KJB Marine Farms Limited v Marlborough District Council* [2016] NZ EnvC 21, See Court Transcript (ENV-2014-CHC-36) at pages 439 to 484 – particularly pages 447-448 and 441.
- D. “Acoustical and Sedimentological Characterization of Substrates in and around Sheltered and Open-Ocean Mussel Aquaculture Sites and its bearing on the dispersal of Mussel Debris.” Neil D. Hartstein. *Journal Of Oceanic Engineering* January 2005.
- E. “Ecologically Significant Marine Sites in Marlborough, New Zealand.” Written by: Rob Davidson, et al, September 2011. For the Marlborough District Council and the Department of Conservation.
- F. Decision Documents U990749 and U990731 on Marlborough District Council’s website.
- G. **Statement of Evidence of Rob Schuckard on Avian matters**
Part of Friends of Nelson Haven and Tasman Bay Inc. and Kenepuru & Central Sounds Residents Association submission for the Marlborough Salmon Relocation Proposal. March 2017
<http://kcsra.org.nz/documents/NewSalmonFarms/170327%20Submission%20-20New%20Salmon%20Farms%20-%20Avian%20Issues%20and%20Related%20Matters%20.pdf>
or
<https://www.mpi.govt.nz/dmsdocument/17302-friends-of-nelson-haven-kcsra-written-comments-on-salmon-relocation-proposal-part2>