

BEFORE SOUTHLAND REGIONAL COUNCIL

UNDER The Resource Management Act 1991

IN THE MATTER OF Applications by Jim Maass-Barrett and Zane
Smith for 16 ha of new mussel farms in Big
Glory Bay, Stewart Island

BY Sanford Limited

Submitter

STATEMENT OF EVIDENCE BY JASON ERIKSSON

12 SEPTEMBER 2019

INTRODUCTION

1. My full name is Jason Grant Eriksson.

BACKGROUND AND EXPERIENCE

2. I am employed by Sanford Limited ("**Sanford**") as the Vessel Manager of the Sanford Bluff fleet. I am responsible for all Sanford Bluff and Stewart Island vessels in both the wild catch and aquaculture business. I manage vessel maintenance, crewing, work programmes and health and safety. At times I skipper the company's vessel San Hauraki, which delivers fish feed and other required goods for the farming operations within Big Glory Bay and returns daily to Bluff with freshly harvested fish and mussels for processing.
3. I have been a skipper for Sanford servicing the farms in Big Glory Bay ("**the Bay**") since 1997. I have held the position of Sanford Vessel Manager for 5 years, prior to the position as Vessel Manager I was head skipper on the Sanford's vessel Explorer Douglas (now decommissioned) and then the San Hauraki. Both of these vessels are the key transport vessel steaming between Bluff and Big Glory Bay. Both are large vessels. The Explorer Douglas was 24 meters LOA¹ and 78 tonne; and the San Hauraki is 30 meters LOA and 300 tonne.
4. I was born and lived my childhood on Stewart Island.
5. I am authorised by Sanford to give evidence on its behalf. I have read the applicant's proposal, and in particular their comments around navigation and safety.

SCOPE OF EVIDENCE

6. The purpose of my evidence is to set out:
 - 6.1 A description of the vessel movements undertaken by vessels in Big Glory Bay, their frequency of occurrence, and how these might change in the future.

¹ Length Overall.

6.2 A description of the current navigational challenges faced by vessels that traverse the Bay.

6.3 The navigational risks that the proposed mussel farms would have on safe navigation in and around Big Glory Bay.

7. I have been provided with a map showing the proposed location of the marine farm sites, which I understand is the map that was contained in the applicant's original proposal and which the Council officer has included in their report. I am also aware that there is an amended map which has been provided later in the process. I have also seen a copy of that amended map. It does not make a difference to my assessment which map is correct, as the locations shown in both maps will, for the reasons I explain below, adversely affect access to Sanford's salmon farm sites.

VESSEL MOVEMENTS IN BIG GLORY BAY

9. Despite its isolation Big Glory Bay is a busy place with a lot happening. Sanford has eight vessels working in the bay year round, of which one steams over from Golden Bay (over the hill from the village of Oban) five days a week and the other from Bluff. Inside Big Glory Bay Sanford has six² dumb barges i.e. barges without motors that are semi-permanent in the Bay. Three of the barges are moved around the salmon farm licences by other vessels so as to carry out various tasks. The barges are attached at the end or tied alongside the three salmon farms.
10. There are three other mussel farming companies operating in Big Glory Bay that have work vessels travelling weekdays into the Bay that operate year round, and one of these companies also has a permanent barge moored in the Bay. In addition the Bay is regularly visited by Rakiura water taxis which can carry around 11 – 13 people and tourist vessel charter operators, two of which are licenced to take around 30 people. I summarise my best assessment of vessel movements inside Big Glory Bay in Table 1 below.

² Scrub, Grading and Harvest barges move between sites; the Kiwa (Grower), Smolt and Brood barges are fixed to the farms. The Kiwa barge is also the hub.

Table 1: Vessel movements in Big Glory Bay

Vessels	Vessel movements	Description of work	Total trips
<p>Vessels associated with mussel farms Sanford x 2</p>	<p>6 days each week; multiple movements around and across the bay</p> <p>Sanford vessel Mystic can either anchor in Big Glory Bay or travel out to Golden Bay overnight. The vessel Erin remains within Big Glory Bay, unless going to Bluff for survey³</p>	<p>Seeding Grading Harvesting Mussel line maintenance Discrete operations not connected to the salmon farm</p>	<p>2 vessels x five days a week for 12 months of year into and around the bay between mussel farms</p>
<p>Vessels associated with Sanford salmon farm</p> <ul style="list-style-type: none"> • San Hauraki • San Braz • 3 farm boats • 1 dive boat • Occasionally two charter vessels working on farm • As needed Foveaux Freighter 	<p>San Hauraki 5 x week into Bay and then between salmon farms spending up to 5 hours in the Bay on each trip – she has approx. 40 trips to move smolt onto the farm, sometimes making two trips a day</p> <p>San Braz – usually five days a week into the Bay and then multiple trips between farms - normally used Sun – Thu, with Friday and Saturday covered by water taxi;</p> <p>Over spring San Braz is in BGB to help with grading (Aug to Dec)</p>	<p>San Haruaki delivers feed and other supplies to all salmon farms, and leaves with salmon and mussel harvested product</p> <p>San Braz delivers shift staff to work, and is also used for moving staff and barges between farms ie</p> <ul style="list-style-type: none"> • Scrub barge • Harvest barge • Oxygen barge • Fish transporter cage • Grading barge 	<p>2 vessels making multiple trips five days a week including in an out of Bay</p> <p>3 vessels making multiple trips (6-10) around the bay seven days a week, year round – these reside in the Bay</p> <p>1 Dive boat Sun to Thu, multiple movements between 3 farms and mussel sites.</p>

³ Erin is generally brought to Bluff once a year.

Other mussel farm businesses vessels	At least 5 vessels travelling back and forth daily from Oban	Seeding Grading Harvesting Plus one barge that is permanently moored in the Bay	5 vessels x 5 days, year round working farms
Water taxi	Daily – up to 8 return trips (16 times into the Bay) a week coming alongside Kiwa barge (grower farm)	Used on weekend instead of San Braz to transport staff to farm; otherwise used to bring out contractors and visitors etc	Every week Year round
Charter vessels ie tourists	Real Journeys – in season sometimes 3-4 times a week in the bay, going around farm sites and up against the Kiwa (salmon grower farm); Aurora, Wildfire and occasional Bluff charters – come in to the bay to view the wildlife an show people the farms – about 10 times a year	Tourists are mainly in summer months (October to May)	1 vessel 3 times a week especially in summer months Plus 10 charter trips mainly in summer
University of Otago	Twice a year – Polaris II	1 in summer and 1 in winter	Two trips with students
Private boats, hunters and fishers	Occasionally – maybe 15 a year	Travelling to head of the Bay, or into the bay to sightsee or fish	15 per year
Cruise ships	7 last summer into Patterson Inlet	Occasional come into Big Glory Bay on small charters or use their own life boats	Unknown

11. Some of the mussel farmers also use sheltered bays within Big Glory Bay to moor up their spare mussel floats and barges.

12. Because there are no roads leading into Big Glory Bay, everything needs to be transported in and out by vessel. The Stewart Island transport vessel, Foveaux Freighter, makes trips into the Bay to deliver and remove equipment and supplies (such as ropes and nets) to the farms. This vessel is also used by other companies to transport mussels to Bluff.
13. I note that Mr Culley has queried what the applicant means by the statement that the proposed farms will involve "*occasional mooring of a vessel and barge within the site.*" It is not clear to me what that means, but from my understanding, 16ha of mussel farms would need to be serviced by a permanent year round vessel and crew of four to five people working on a full time basis, including establishment, seeding, grading, harvest and line maintenance.

Navigation in Big Glory Bay

14. Big Glory Bay is approximately 5.5 km (3 NM) long and 2.7 km (1.5NM) at its widest. Historically Big Glory Bay was classified as a safe anchorage on marine charts. This classification has since been removed from marine charts, probably due to the marine farming activity in the Bay.
15. I understand that the application refers to a navigational channel that Environment Southland has developed in the Bay, and that the applicant has said that because the proposed mussel farms will not be in that channel, then any navigational issues will be addressed.⁴ I know that there are clear areas of water in the middle of the Bay because I have access to an aquaculture map through my job. But this is not a formal navigational channel shown on any maritime charts. It may be in the Regional Plan but mariners do not use the Regional Plan map to navigate. There is no requirement that vessels use this channel. There is just a warning on the maritime charts that marine farms are present in the Bay.

⁴ Application, 2 May 2018, page 16-17.

16. Only those people who have an aquaculture map that shows the locations of marine farms, and have local knowledge of the Bay, would be aware of the area that is free of farms running down the middle of the Bay.
17. There is freedom of access anywhere in the Bay including close to and alongside a salmon farm and between mussel lines. The public could, if they wanted, tie up on a mussel line and fish, like recreational fishers do in many other aquacultural places in New Zealand.
18. In any event, most aquaculture vessels do not stay in the middle of the Bay, they manoeuvre between farms, crossing and re-crossing multiple times a day as they choose their most direct route. Many of the growers in the Bay (and particularly Sanford but not the applicant) operate multiple marine farming sites which are not all located next to each other. Sanford vessels only go up the middle of the Bay if they are going to the head of the Bay to drop staff off at their accommodation.
19. The San Hauraki delivers feed to the smolt or grower farm, drops off and picks up equipment, rope, anchors or buoys. In doing these tasks, the vessel has to dodge structures and anticipate the location of underwater warps that go outside the licence area. Different growers can use different warp lengths.
20. Any skipper on any vessel moving in or around the marine farms must be constantly alert watching for others, but more so on a big vessel like the San Hauraki as with this vessel it can take a lot to stop her in the water, depending on the load she is carrying. It is not as manoeuvrable as the smaller vessels. Smaller vessels can also disappear from the San Hauraki wheelhouse view and yet still be five or six metres away from her bow.
21. Generally speaking, Big Glory Bay is busier in summer months because there are more likely to be charter and occasionally recreational boats in the Bay. Summer is also the time when the largest numbers of salmon are being harvested on the farm e.g. over 3,500 fish a day and these need to be loaded onto the San Hauraki.

22. That said, fish harvesting is a year-round operation, and while mussel harvesting for Sanford normally takes only 5 months per year, the mussel barges are re-seeding or grading product for the balance of the year.

Vessel size

23. Photograph 1 shows the San Hauraki, which is our biggest vessel in the Bluff aquaculture business. She has a minimum manning of three crew and travels from the No.1 wharf in Bluff to Big Glory Bay five (and in busy periods, six or seven) times a week, year round. When she is tied up, for example in survey, the Marine Countess is chartered. The Marine Countess is a similar size vessel but carries the fish on the deck not in the hull.
24. The other large vessel that comes into the Bay is the Fouveax Freighter, she is used occasionally to take fish pen nets back to South Port in Bluff and deliver mussel rope out to farms.
25. These three large vessels – the San Hauraki, Marine Countess and Fouveax Freighter – all have to manoeuvre between farm sites in order to access the grower, smolt and brood stock salmon farms, wherever they may be located in Sanford's consent areas. They need space to do this safely.



Photograph 1: The San Hauraki manoeuvring between mussel lines

26. The San Hauraki departs Bluff at 0630 and returns around 1630, and she would normally spend five hours of each trip inside Big Glory Bay unloading, loading and moving feed and equipment between farms. I understand that at her replacement Sanford plans are for the next vessel to likely have a bigger hull capacity in order to transport the additional fish grown on the farm as a result of the recently granted resource consent variation, or that there may be two vessels of this size. I refer to the evidence of Mr Culley and Mr Swart who have both addressed the Sanford salmon growth strategy.
27. In the future I anticipate that there will be more, not less vessels in Big Glory Bay. And likely bigger more efficient vessels as there will be more staff, more feed, more equipment and more product to move. In my experience there are more tourists visiting Stewart Island and the tourist season is longer, this means it is highly likely that there will also be more private charters and boats coming into the Bay. The Bay and the number of vessels inside it will get busier.
28. Hunting parties also have access to hunting blocks within Big Glory Bay, most of these groups will have a small vessel to go fishing or diving. Skippers like myself working in the Bay need to be very wary of these parties and recreational boats,

as they are not aware of what is happening within the Bay and at times they cause a hazard to other vessels due to their lack of knowledge.

Weather

29. Foveaux Straight is challenging water. The current runs fast, and the wind has a direct effect on the size of the ocean swell. The bigger the vessel the smoother the ride. It is important that the fish taken to Bluff are maintained in perfect quality. They cannot be banged around as this can lead to skin damage. The fish are packed in ice before being put into the San Hauraki hold and taken to Bluff.
30. Weather is also a major factor inside Big Glory Bay affecting the manoeuvrability of vessels. It only takes 20 knots of wind to affect San Hauraki, which can then blow her off course and affect her manoeuvrability. 20 knot winds are not at all unusual in Big Glory Bay and the skipper needs to compensate for the wind and waves when manoeuvring. The proportion of days when winds have been at or above 20 knots in the past ten years is shown in Figure 2 below. Fog also occurs in the Bay. When it does occur, it is very thick and visibility is challenging.

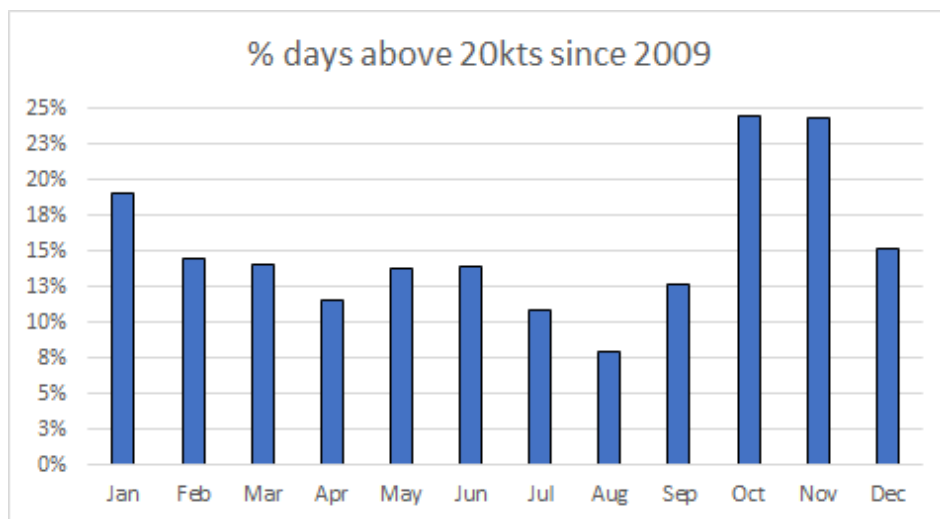


Figure 2: Number of days per month that wind speed is over 20 knots (source: ADS Environmental – personal communication)

31. We navigate using radar as well as sight to detect where marine farms are in the bay. In choppy conditions it is hard to see where the farms are because the waves are constantly washing over the structures and buoys. It is also harder for the radar to pick up the farms in choppy conditions for the same reason.
32. The boats need to be big enough to do the jobs required for Sanford's farming operations. All the Sanford vessels are work boats. They do multiple jobs, many of which are highly skilled such as slowly moving between the pens structure with fish in them across Big Glory Bay to another licence area, or moving small barges up alongside the salmon pens. The aim is to do this task at a time when the biomass is low, so that it puts less stress onto the fish. Precision and care is required because nets can easily be damaged (even collapse) and holes allow fish to escape.
33. It is a slow process to move a salmon farm and the vessel moves at less 2 knots. The whole farm structures, including the fish, are towed by a large vessel and flanked by up to four other vessels which keep the pens secure and controlled. When part of the Sanford salmon farm was shifted from MFL 249 to MFL 246, the actual towing of the pens took more than four hours. The skipper needs plenty of room to manoeuvre, at good depth and in the right tide, remembering that they are coordinating four vessels. It is a similarly challenging process to transport fish between the smolt, grower, and brood farms in the transporter pens.
34. The job of skipper is made easier when there is room to manoeuvre the boat. It is very difficult on a big vessel like the San Hauraki to manoeuvre in a tight situation, as having to do so can lead to mistakes if the skipper is distracted by other vessels or affected by the weather. Skippers need to take into account potential hazards around the vessel like mussel lines, floats, mooring lines etc.
35. The proposed location for the Applicants' new farm Site 3 will make it extremely difficult to move the salmon farm off Sanford's licences MFL 340 and MFL 339. The warps of their mussel lines would mean it is most unlikely that there is sufficient room for us to manoeuvre. I know that when Sanford moved the farm off MFL 249, in March 2017, we manoeuvred the farm clear of site MFL 365 (a non-Sanford mussel farm) and then had enough space to tow the fish pens onto MFL 246. I

refer you to the Table 2, below, for a more detailed overview of which salmon farm licences are likely affected by the proposal.

NAVIGATIONAL / SAFETY ISSUES IN BIG GLORY BAY

36. As I said earlier, there is always a lot going on in Big Glory Bay. Some of the boats are quite small and are moving around quickly. Occasionally there are non-commercial (private recreational) vessels and these can come quite close to the marine farms. Recreational boats can be a hazard as you are not able to determine the skipper's knowledge or level of experience. Vessels, and particularly those not skippered by experienced mariners such as myself, can make surprise movements. This can make manoeuvring a bigger vessel challenging particularly when there is not a lot of space.
37. In vessel movements alone there are often 12 vessels working in the Bay, five days every week of the year. These vessels are always moving between farms. The radio channels are constantly used, to communicate instructions between the boats and their crew and by the water taxi warning of his imminent approach to get directions on where to pull alongside. I think Big Glory Bay is a lot busier than people imagine.
38. Some of the existing marine farm sites in Big Glory Bay do not have a lot of space around them, especially when you take into account their mooring lines, anchor warps and that some farms also have lifting lines. The shallower the water, the further out the mooring lines are. It can be very tight to manoeuvre a vessel particularly one the size of the San Hauraki, Foveaux Freighter or Marine Countess. It is not so bad on the Sanford sites because we are at pains to coordinate internally and work around the vessel requirements – even by lifting mussel lines out of the way. However, when it is someone else's farm it can be difficult, particularly if the farmers are out there working their lines.
39. Another source of concern is the margin for error when something goes wrong such as particularly bad weather or a mechanical failure on a vessel. In a situation like that, the ability to navigate and have enough space for larger vessels becomes even more important. In fact, it becomes a health and safety issue – we need to keep

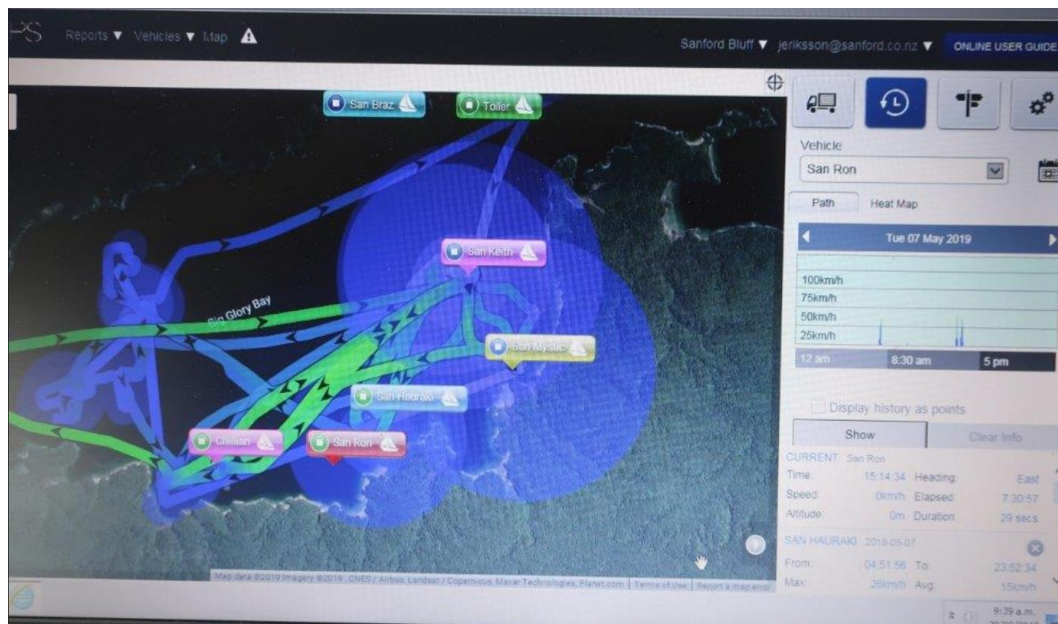
crew on the vessel and on the farms safe. As an example, in late August the San Hauraki developed an issue with her bow thruster which affected manoeuvrability and meant we needed more space than normal to turn the vessel. In an undesirable situation such as that, if the room for manoeuvring the vessel is too restricted and does not leave any margin for unexpected events, the boat is stuck or the site becomes inaccessible.

40. For every mussel line that you see there are additional meters of rope in the water at either end, depending on the depth of water and angle of line. Some farms might have a mooring line that goes 30 degrees, others might go down at 50 degrees. As a skipper, this means that I need to constantly take a cautious approach around mussel and mooring lines. This is similar to the salmon farm but the mooring holdings on the salmon farm are all at a constant length of 70 meters from the farm, not at various lengths like mussel farms can be.
41. At the Bay's full farming capacity (and we have not yet seen what this looks like as Sanford has yet to utilise the additional production allowed by recently granted resource consent variations and the salmon grower and smolt farms have not yet split), there is a lot going on - on the surface and under the water. I imagine that Big Glory Bay is likely to be one of the most intensely developed aquaculture areas in New Zealand.



Photograph 2: The Erin is Sanford's mussel harvesting barge in the Bay

42. The image below shows one day of Sanford salmon vessel tracks (excluding mussel vessels). I have software that allows me to track our vessels using their GPS signal. I have selected a random weekday earlier this year as an example to show what kind of activity and routes our vessels would usually take in a normal day. You can see that there were six vessels working that day – the San Keith, San Mystic, San Braz, San Hauraki, Chillian and San Ron.. The vessels were moving mostly between our grower farm and smolt farm. The land surrounding the Bay can also be seen in the image.



Photograph 3: Image of screen showing Sanford salmon farm vessel tracks, 07 May 2019

Navigation at Night

43. Stewart Island has long daylight hours in summer, and conversely in winter it gets dark quickly. Often boats are moving around Big Glory Bay in the dark. Parts of the salmon farm are well lit because the farm uses in-pen lights to manage fish maturation but the mussel lines corner marks only have navigation lights.
44. At times the mussel farm harvests very early in the morning while it is still dark in order to coordinate transport, or meet sales requirements.
45. Mr Engel has said in his evidence that the applicants are not aware of any navigation incidents occurring in Big Glory Bay. However, there have been incidents in the

past. For example, about 10 years ago a very experienced Sanford skipper had navigational difficulties while manoeuvring at night. The radar did not pick up a nearby mussel farm (consent number 215) and the vessel had a collision with the farm structures – running right across the farm. This is difficult work and even experienced skippers can encounter difficulties even when they are taking good care and being cautious.

46. In winter, once a week the water taxi will motor to the head of Big Glory Bay to drop off shift workers in the dark because coordinating times around winter sailings of the Bluff-Oban ferry is very restricted.

MOVING THE SALMON FARM

47. By far the most technically challenging job on the salmon farm is moving the pens when they have fish in them. For example the smolt farm had 1 million fish on it when we moved it last year. As Mr Swart explains, a farm is shifted at least every two years, and sometimes more often.
48. The farm is moved as two units – firstly the pens, and then the barge. In 2019 the grower farm has 16 pens, in two rows of eight, each pen is 30 x 30m. The smolt farm has 10 pens, in two rows of five, each pen is 30m x 30m. The brood farm has 12 pens, each pen is 12m x 12m. As Mr Swart and Mr Cully explain, in the next two years (to 2022) we plan to increase from three separate farms to five.
49. My role in the farm move is to secure (charter) sufficient big vessels and crew to stabilise each corner of the farm during the move. Our job is to keep the pens reasonably taut when manoeuvring them through the water. It is a slow and careful process. I choose the line the vessels will take. This requires a lot of space as manoeuvring the pens requires a big area and constant depth – the pens cannot be allowed to drag on the seafloor. First the farm, then the barge, is moved. Both need anchoring and securing before night fall. Big vessels are used to shift the farm, not small work boats, although we do have all of the Sanford small run-about in the water ready to lend a hand.

50. Moving farms is stressful and intense. It is also dangerous work, so safety of staff, vessels, the fish and the pens are all paramount.
51. During the move it is critical that there is sufficient space for the pen configuration and the vessels towing it to manoeuvre. During the move the momentum needs to be maintained otherwise the farm structure could be damaged. When the net is towed through the water, it has a tendency to hang on an angle – this has to be avoided. The angle on the net, combined with prop wash, will damage fish. The farm is moved sometimes across the Bay, or up and down the Bay. There is a lot of planning and waiting for the right weather conditions. Sometimes mussel lines (on Sanford farms) need to be removed before the salmon farm can be moved safely.
52. Moving the salmon farm is always challenging, but made even more difficult if we are forced to go between, go alongside, or even get behind other marine farms. When moving farms we require as much space as possible and need to take the most direct route possible. This means we try to take the most direct, clean route.
53. There is a clear channel of water south of the marine farm consent areas 474, 366 and 322. We use this clear channel when we move the salmon farm off site MFL 320. This channel will be blocked by one of the proposed new farms (site 1).
54. There are several salmon farm consent areas in a similar situation, and access to those areas in order to move farm pens and barges, or to transport fish between farms in the transporter pen, will be blocked by the proposed new farms, as described in Table 2 below. This could make some of the salmon farm sites unusable simply because it will be almost impossible for us to get the pens onto the site.
55. On the table below I show which of the 10 salmon farm licences become very difficult to farm or un-farmable because the 'farm – fallow' rotation requirement cannot be met. I note that even if the farms are in the locations shown in the amended map that the Applicants have provided, they will still create the restrictions discussed below. In particular, I notice that although Site 1 in the

amended map has moved a little further away from the farms on the western side of the Bay, sites 2 and 3 appear to be a lot closer to the farms in the eastern side.

Table 2: Salmon farm locations that will be affected by this proposal.

Farm	Size (ha)	Shape	Concerns
MFL 249	12 ha	400m x 300m	<p>This consent area contains six farm sites known as 249A, 249B, 249C, 249D, 249E, 249F.</p> <p>If the applicant's sites 2 and 3 are in place, this will make access to take fish or farm structures from Sanford's sites 340 and 339 across the bay to site 249 (or vice versa) very difficult.</p>
MF 320	3 ha	150m x 200m	<p>This consent area contains two sites known as 320A and 320B. To access this site we have historically relied on the channel running in front of the licences MFL 366, 474, 322 and 319 but this would be blocked by the proposed Site 1.</p>
MF 321	3 ha	120m x 250m	<p>This consent area is used for the brood farm which is not moved, while access is not blocked by new Sites 2 and 3, it does become restricted. If we were to locate a different farm onto this site, access would also be restricted.</p>
MF 338	4.5 ha	150m x 300m	<p>This consent area provides five sites known as 338A, 338B, 338C, 338D and 338E. Again while access is not blocked by new Sites 2 or 3 it</p>

Farm	Size (ha)	Shape	Concerns
			is more restricted, particularly on bad weather days.
MF 366	3 ha	200 m x 150m	This consent area provides one site for salmon farming, as the part of the area closest to the shore is too shallow. Access to this site would be extremely difficult if Site 1 were in place, as we cannot get our vessels around the landward side of those consent areas. This will severely limit our ability to set up and move a farm, and could add another two hours onto the move as vessels tried to align the farm. In addition, laying and stretch moorings will become difficult as will accurately positioning the farm on site and dropping anchors. The lack of clear water for manoeuvring also poses safety risks.
MF 339	4 ha	200m x 200m	This consent area provides two sites known as 339A and 339B. If application sites 2 and 3 are in place, it will become very difficult to access MF339, especially if shifting a farm on and off site or transporting fish to or from this site – particularly if the move is to a farm site across the Bay.
MF 474	3 ha	200m x 150m	This consent area provides one site for salmon farming, as the part of the area closest to the shore is too shallow. Access to this site would

Farm	Size (ha)	Shape	Concerns
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be extremely difficult if Site 1 were in place, as we cannot get our vessels around the landward side of those consent areas. This will severely limit our ability to set up and move a farm, could add another two hours onto the move as vessels tried to align the farm. In addition, laying and stretch moorings will become difficult as will accurately positing the farm on site and dropping anchors. The lack of clear water for manoeuvring also poses safety risks.

This site is very tidal and has a short window of opportunity for access by larger vessel. This leads to further safety issues as the area of clear water available for manoeuvring is very limited.

MFL 340	4 ha	200m x 200m	This consent area provides two sites known as 340A and 340B. If application sites 2 and 3 are in place, it will become very difficult to access MF339, especially if shifting a farm on and off site or transporting fish to or from this site – particularly if the move is to a farm site across the Bay.
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Uncertainty in mapping references

56. I have tried to plot the co-ordinates on my marine chart of the three proposed new farms, as set out on page 10 of the Application posted on the Council's website, and also as amended in the Applicant's response to the first further information request. The coordinates are confusing and do not make sense to me. The co-ordinates do not relate to a marine chart. It is unclear to me what kind of map was used. In my view it is a marine farm application on water, it should have used or at least provided marine coordinates.

MATTERS RAISED IN THE APPLICANT'S EVIDENCE

57. I wish to address one matter raised by Mr John Engel in his evidence, see page 10 under Navigation and Safety (paragraph 38) where he says:

Because the area is a [sic] known for its marine farms, care is already required when navigating through. The effect of these three new sites on navigation and safety is assessed as less than minor'.

And in paragraph 42 he says:

Although marine farming poses a navigational risk, it can be mitigated by navigation aids attached to the farm structures, information and care on the part of the vessel operators'. The proposed new farms are not considered to increase the risk to navigation in the bay and any effect is cumulative one rather than a new one.

58. But as I have explained above, the location of the proposed farm sites will affect our ability to navigate to Sanford marine consent areas. It is not just about needing to take care – my concerns are about how much space will be left to allow us to manoeuvre the vessel safely and effectively, particularly when we are transporting farms or fish across to different sites. We have had to remove mussel lines on Sanford-owned farms to accommodate our manoeuvres. This is not possible with a different operator.

MATTERS RAISED IN THE SECTION 42A REPORT

59. The Council officer in his report, section 6.1 (page 10) says:

The proposed sites are not located within the fairway, nor are they located in a position that will prevent safe navigation into, around and out of Big Glory Bay. The application states that Big Glory Bay is known to be a marine farming area and users of the area know that extra care needs to be taken to navigate through it'.

60. Just because an area already has marine farms located in it and vessels are already taking care, is not justification for adding another 16 hectares of new farms. Also, it does not seem from that statement that the Council has considered the impacts on navigation in other parts of the bay that are not in the 'navigation channel' but that are still used by vessels. While marks, floats and lighting are important, my predominant concern is access between and around marine farms given the water depth and locations of existing farms and the working traffic already in the Bay.

SUMMARY AND CONCLUSIONS

61. Overall, Big Glory Bay is a busy area with a lot of vessel movement. My evidence has explained the logistics of navigating in the Bay, particularly by the large vessels that Sanford uses for its marine farm operations. I am concerned that even though the middle of the Bay will be kept free from farms, the applicants have not explained or considered the effect that their three proposed mussel farm sites could have on navigation for the vessels that are used by other operators.

Jason Eriksson

12 September 2019