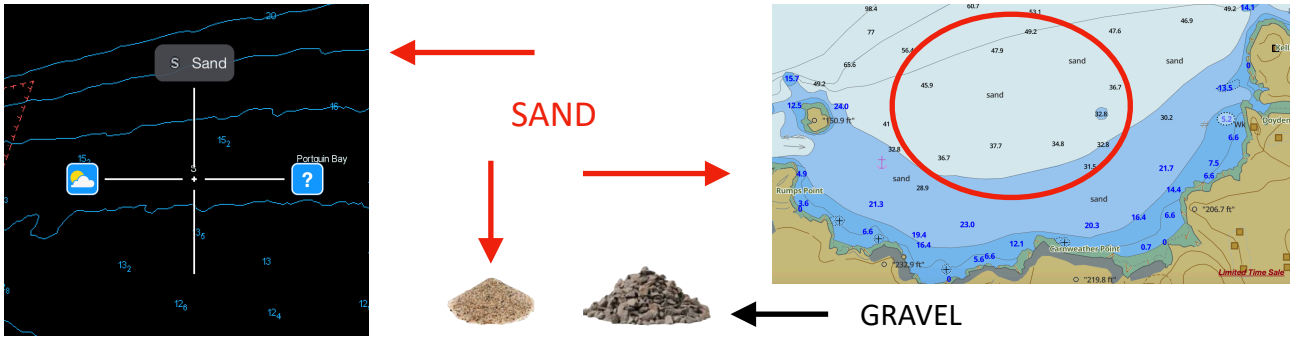
The Team have submitted a detailed document to the Marine Management Organisation in opposition to the seaweed farm at Port Quin. Our responses are technical and evidenced, as requested, and conclude that this proposal is a dangerous folly which would cause long term damage to the bay and its wildlife, would pollute the sea, put human lives at risk, and ruin the seascape. We have also commented (at length) on the applicants' misrepresentation of research studies and on the scale of the infrastructure. Crucially, we debunk the assertion in the Document that the sea bed in the bay is "coarse sediment" or "very coarse", "coarse sediment with pebbles", "coarse substrate", "coarse (gravel)". "Coarse sediment" is repeated over 75 times in the Document ("consultation" only appears 13 times, by comparison). It's not "coarse sediment", it's sand. Sand is a critical habitat for prey species foraged by our marine mammals like seals and harbour porpoise (protected under Special Area of Consultation directives), and the Red Listed puffins, guillemots and razorbills nesting on the Mouls. Coarse sediment, or gravel, is not so critical a habitat. Claiming that the sediment is coarse is fundamental to the entire 624 page document, the fact that, in truth, the sea bed is sandy makes the whole project unviable.



The sediment inaccuracy undermines the whole of the Document, but we have contested other aspects too, how could we not? For instance, the applicants repeatedly claim that the deployment of the concrete anchor blocks will take 36 days in total over 3-4 years. When, not factoring in sea conditions, deploying 2,950 concrete blocks in a 36 day period would equate to deploying and carefully positioning 82, 11.5 tonne concrete blocks every day. If you factor in the wave height tolerance of the concrete block barge (2 metres) it would mean operating during all available weather windows, 7 days a week, throughout August, September, October and November for <u>10</u> <u>years</u>.

AIS data for Vessel type Cargo between January 2012 and present day

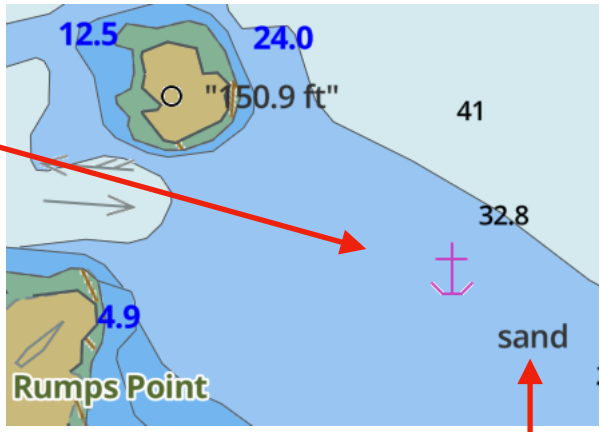
Port Quin Bay is a designated Safe Anchorage area. It is sheltered enough for large cargo vessels to wait out rough weather, and many do. The applicants reckon, however, that these vessels in peril *"are not specifically utilizing the safe anchorage point each time but are either transitioning through* (to where?) *or temporarily anchored within the wider bay area",* and that *"The next closest designated safe anchorage is 2 miles away at Steppers*

[sic] *Point".* The image on the left shows cargo vessels utilising all anchorage in the area over a 12 year period.

Also, the applicants seem to think that an anchor symbol on a map is the EXACT spot for vessels in distress to moor up, stating, *"the designated safe anchorage area is situated in the south-west of the Bay (Figure 13.0a: anchor symbol/co-ordinates provided)"* (Figure 13.0a is a snap of a laptop screen with a blurry map on it).

This is the anchor symbol

Why would a large cargo vessel choose to moor in relatively shallow water in a storm, close to hazards such as the Mouls and the Rumps? The anchor symbol designates the area, not the coordinates.



SAND!

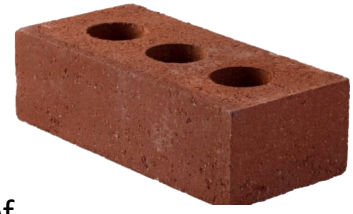
Many of you may not have taken in the enormity of the newly proposed infrastructure. It's vast, ruinous and unmanageably expensive:

Item	#	Total length of lines (m)	Unit cost (£)	Total cost (£)
Concrete blocks	2,950		1,500	4,425,000
Navigational buoys	14		500	7,000
Long line buoys	4,608		150	691,200
Header lines	576	92,160	2	184,320
Drop lines	2,304	2,304	1	2,304
Riser lines	576	17,280	3	51,840
Seed lines	46,080	414,720	1	414,720
				5,776,384

An estimated £5.8 million quid! All the numbers we have been dealing with are huge, but some of them don't correlate with the assertions of the applicants:

They say 288 anchor points, in truth it's **590**
They say 1 concrete block per anchor, in truth it's **5**
They say 576 total concrete blocks, in truth it's **2950**
They say the blocks will cover 1036.8m2 on the sea bed, in truth it's **11800-14160m2**
They don't say how heavy each block is, the truth is it's **11483.15kg**
They don't say the weight of all the concrete blocks, the truth is it's **33875.3 tonnes.**

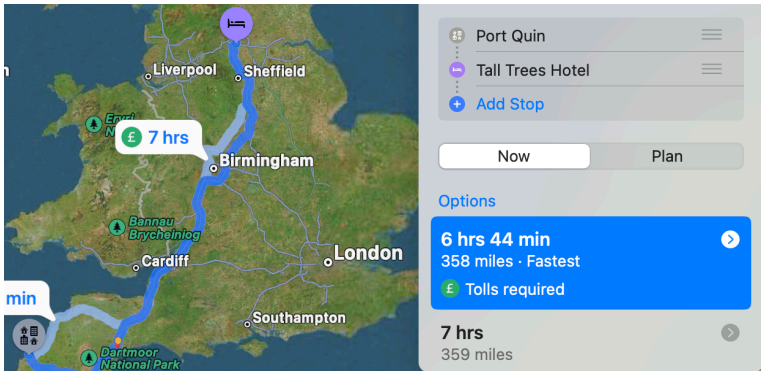
The applicants don't do the sums on the amount of rope that will be in the water, so we did them. The various lengths are in the table above, and they add up to, wait for it… **576,464 metres**. That's **358.22 miles**. That's Port Quin to the Tall Trees Hotel outside Wakefield in Yorkshire. 358 MILES of polypropylene rope in a 1.313 square mile area of pristine wilderness. That type of rope is fibrous and rough and it degrades slowly in seawater. When it's hauled, it sheds billions of plastic microfibres into the sea.



Oh, house bricks! We think that they use house bricks to weigh the seed lines down. A 3-Hole Facing Brick (219mmx 100mm x 67mm) is just the weight they need (2.7kg), and they come in at a tasty 79p each (ex.VAT), presumably far less than that if you are purchasing **92160** of them. If I had to attach house bricks to a rope system in a dynamic marine environment, I'd go for a trusty cable tie. Or two. At harvest, the bricks are presumably just pulled off before they reach the winch. Where are thousands of snapped cable ties going to end up?

Visualisations:

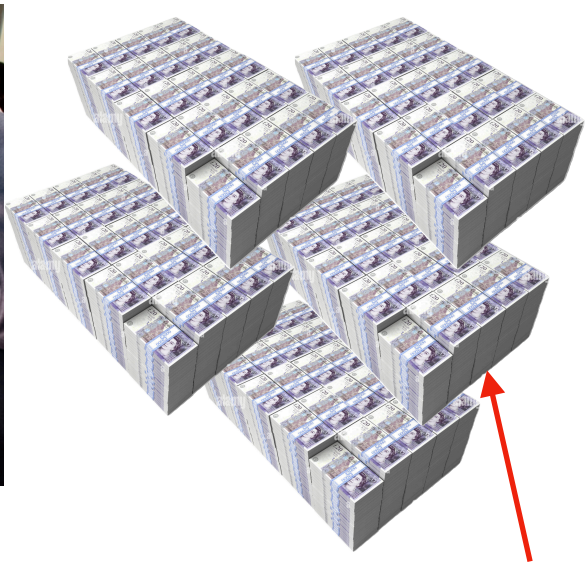
33,875.3 tonnes of concrete blocks is almost ~ two massive concrete towers in India (~35k tonnes)



= 358.22 miles of nylon rope. That would take about 7 hours to drive along (obeying traffic regulations!)

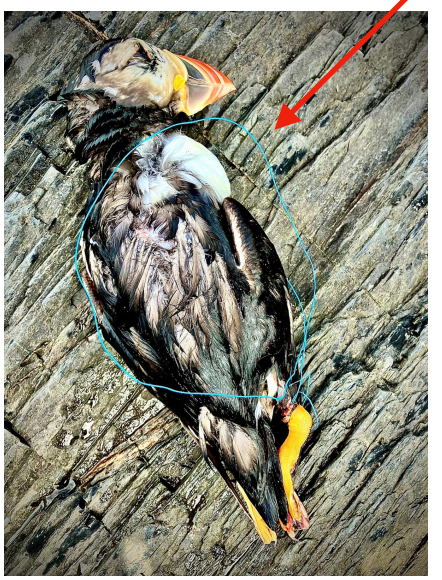
100 hectares is equivalent to 1km squared, or 140 of these

Public consultation and collaboration looks like this

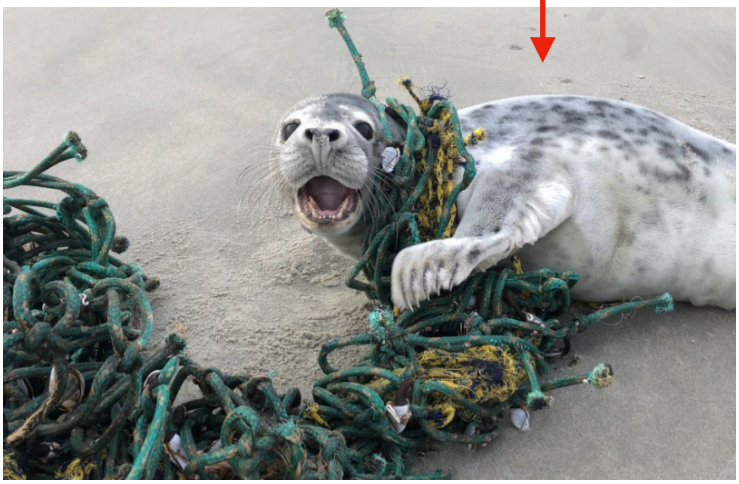


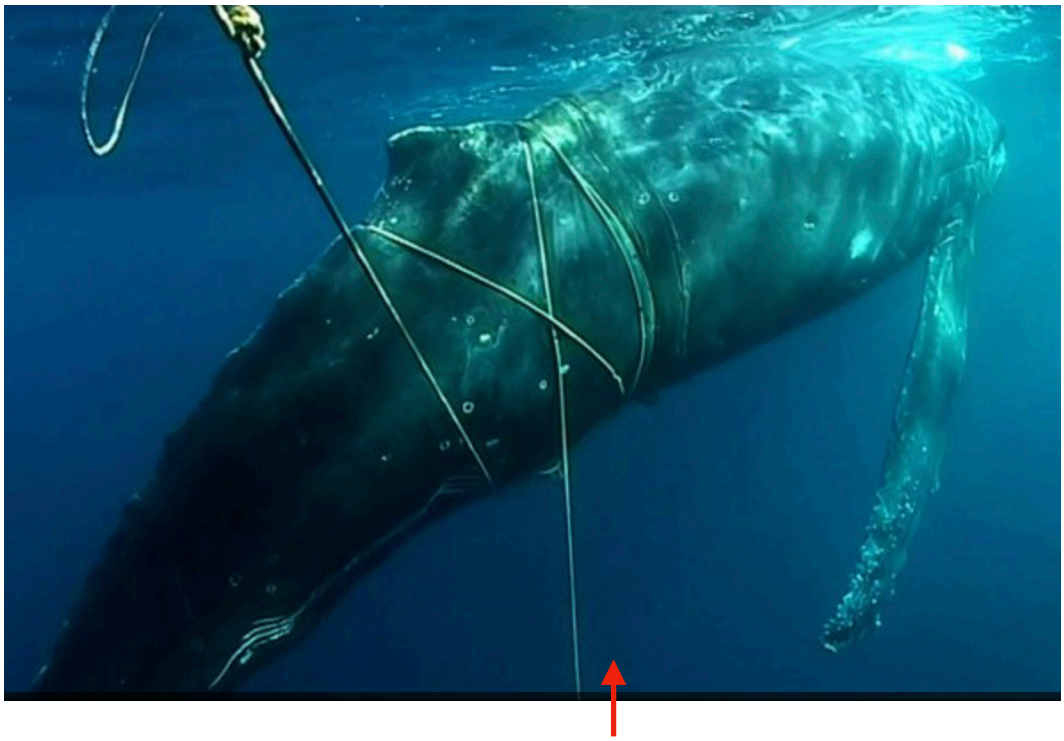
5 million quid looks like this

An entangled puffin looks like this.



An entangled seal looks like this





An entangled humpback whale looks like this

*

We have worked incredibly hard to compile a robust and evidenced response to the 624-page document submitted by the applicants and released to us on 30th October.

We are submitting Evidence Reviews to the MMO on the following topics:

1. Project Infrastructure
2. Sediment
3. Habitat Loss and Entanglement Risk
4. Safe Anchorage
5. Project Feasibility
6. Consultation and Engagement
7. Areas of Aquaculture Potential
8. Bird Impact
9. Geology
10. South West Marine Plan Policy

Please download any of the Evidence Reviews here: **DOWNLOADS**

Please reach out by email or WhatsApp if you need help objecting: **CONTACT**