

Gen Hewett

From: Karen Pratt [REDACTED]
Sent: Wednesday, 22 March 2017 12:29 p.m.
To: TTRLApplication
Subject: reefs - info for DMC

Categories: Info volunteered from recreational interests, Gen

Hello Gen and team,

Could I please have the following email sent to the DMC. Whilst my position is outlined in point 2 – I have tried to assist further with point 1, and points 3-6 .

1. **Expert on Sponges:**

I have just this minute got off the phone with a sponge expert Chris Battershill, who conducted a survey back in 1996 of sponges in an area now a marine reserve, in North Taranaki. I have asked him to review the photos and videos of the sponges on the Project reef and the Crack, and he said:

- a. Many species seen on the video and photos, are not seen at the Parininihi Marine Reserve (Parininihi is a nearshore reef, close to papa rock in north Taranaki).
- b. Chris said the photos and videos, **show a spectacular, diverse and robust collection, that needs protection.**
- c. Very special, in terms of the nearshore reef sponge collection in NZ have been negatively impacted, and so offshore sponge reefs need special protection.
- d. Chris was unaware of the number of reefs offshore in South Taranaki.
- e. Chris is to dive Parininihi again, but feels that the cumulative impact of sedimentation, and the re-suspension of that sedimentation are likely to have negatively impacted on the nearshore reef and its sponges. He is to conduct the re-survey shortly.
- f. Chris explained how fine sediment can accumulate offshore, and be re-suspended in times of storm – so this cumulative impact from the Project needs careful consideration, in terms of the spectacular diversity seen on the Project Reef and the Crack. Chris used the example of the Wanganui river, and its impact on nearshore reefs.
- g. I explained that I have recently **found a new species of sponge**, on the shore of Ohawe beach (Sponge expert, Michelle Kelly said, NIWA might name the sponge after me!). And Chris said it is not surprising, when he considers the variety of species seen in the photos and videos.
- h. Chris noted the special geological structure offshore, and how the hard substrate is a unique and special feature.
- i. We also discussed the number of sponges in horizontal positioning (indicating low sedimentation) verses seen on vertical ledges mainly at Parininihi (due to sedimentation impacts).

2. 9th March 2017 I sent an email which alerted the DMC to my inability to provide GPS points. The DMC has indicated it would like GPS points, but I am unable to assist as:

- a) The GPS points are not my information to give.
- b) I have given a signed paper to each person giving me their points, that they have been put into a GIS system under strict confidentiality arrangements, with no public access to the GPS points.
- c) **The purpose of the GIS map** I presented to the DMC was to make them aware of a significant 'information gap' – in terms of the documented maps presented by TTR.
- d) My submission 'describes' the reefs also (see pages) in order again to alert the DMC to the significant 'information gap' on those reefs of high substrate.
- e) Chris Battershill (sponge expert) supports my approach, considering alerting the DMC to the lateral extent of reefs is important, but knowing the exact location is not.

Extract of 9 March email:

Would I please be able to ask the DMC to put in writing their expectation of what they would like me to provide reef wise & the time frame.

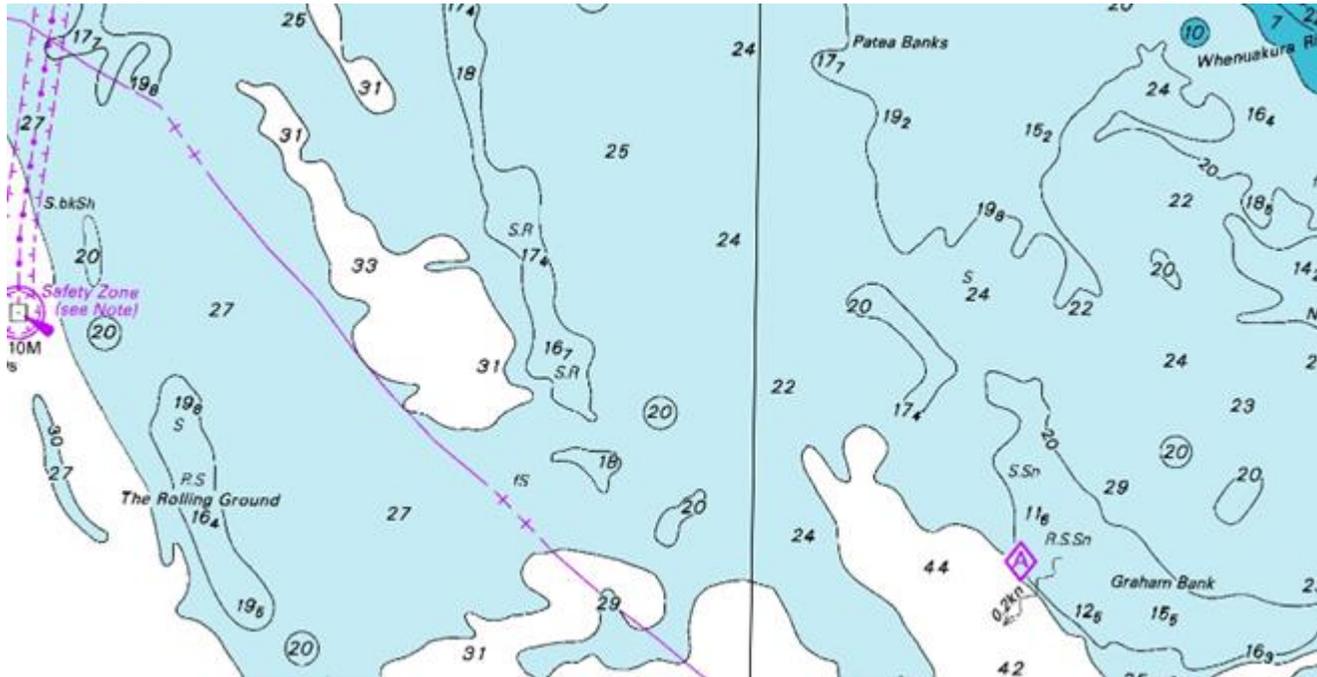
(I said at the hearing that I would get 'more dots' on a map of reefs, but I am thinking you need GPS points?)

I feel uncomfortable asking for private GPS plots and giving them to TTR/EPA, but would be happy for 'an independent expert' to approach a fisherman/diver and arrange to go out with them to dive their spots and take video/surveys.

This is an information gap that is difficult for us to obtain data for in the time frame, and with the sea conditions at present.

3. IMPORTANT information re. REEFS CLOSE TO THE PROJECT SITE AREA

- a. A commercial fisherman alerted me to the notation on 'map 45' – for the Rolling Ground. It is 16m depth (shallow) and has the notation **R.S. – which means 'rock and sand'**. As this area is in the Proposed Project Area, and includes rock and is shallow, there is every likelihood for sponges, bryozoans, coral etc to be attached. Even the possibility of a 'sensitive habitat'. Nowhere in any information provided by TTR, has the possibility of 'rock' in the Project site been provided – despite independent mappers stating there is.
- b. The 'finger area' by contrast is S.R. which means 'sand and rock'. It is close to here that the 'Crack' is located. Again, this gives independent mapping authority for there to be 'reefs/rock'.
- c. Graham Bank has R.S.Sn in one part, and S.Sn in another – so the mapping TTR provided, may have been in the non-rock area. Again, independent mapping authority describing 'reefs/rock'.



 Karen Pratt - Cape Egmont to Rangitikei River Map (pdf, 279kb)

4. **A commercial fisherman has given me GPS coordinates of a few reefs in close proximity to the Project site** which the dive club will dive and obtain video/photos of (we will video the front part of the GPS coordinates, as 'proof' of our visit), and will get a scientist (if available for the trip) to attest to the 'dot on the map' as being where we dived.
5. **Victoria University are bringing to Taranaki a ROV** and the philanthropist from Taranaki (George Mason) who donated money to Victoria University to purchase it, is supportive of the ROV being used for South Taranaki. The scientists are hoping to meet with us (Reef Project) in April to plan this further. This is where we may obtain further evidential data on the reefs, their diversity and substrate.
6. As the DMC are tasked with obtaining 'the best available information' I would like to alert them to a recent MPI (Ministry for Primary Industries) report, which **documents local ecological knowledge, including 'The Rolling Ground'**. This report adds weight to my submission points about sponges particularly and also **notes a patch of hard ground at point 11.**

<https://www.mpi.govt.nz/document-vault/14563>

Biogenic habitats on New Zealand's continental shelf. Part I: Local Ecological Knowledge New Zealand Aquatic Environment and Biodiversity Report No. 174 E.G. Jones M.A. Morrison N. Davey B.W. Hartill C. Sutton

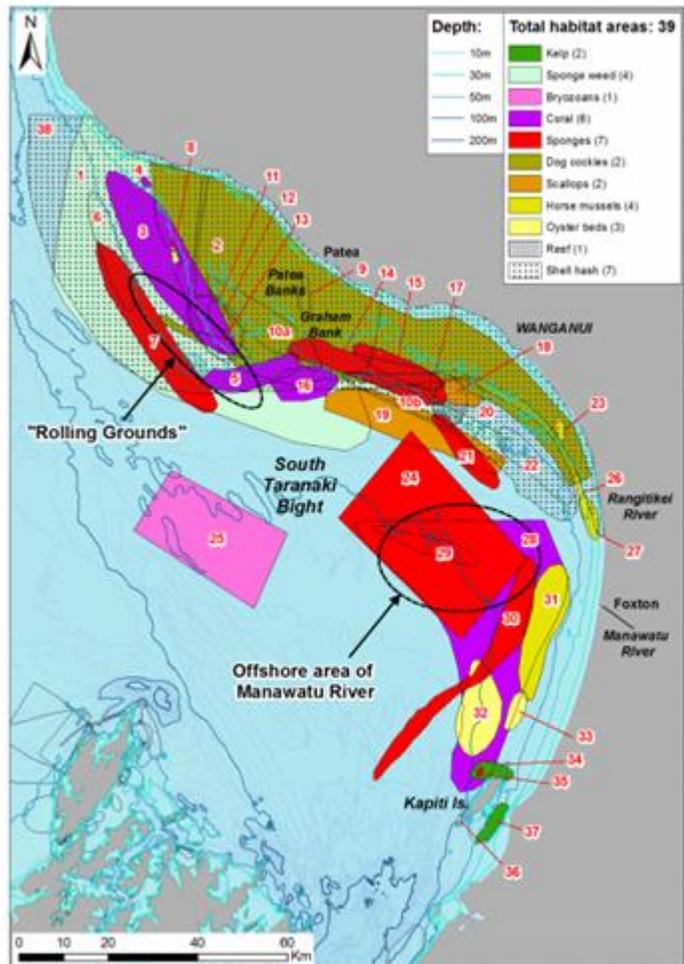


Figure 12: South Taranaki Bight and Kapiti Island LEK map (Region I of Figure 3). Each fisher-drawn area has been assigned a unique number, specific to this regional section (red). Some key sites are circled and labelled as black text on white background.

Table 10: Summary Table of sites described by fishers in the South Taranaki Bight and Kapiti Island region, with the area identification numbers, brief description, fishing impacts where mentioned, and number of fishers who verbally described, or identified overlapping or very close areas. Key sites in bold.

Sites	Area ID no.	Description	Fishing Impacts observed	Freq. of ID
Inshore of Rolling grounds / Patea Shoals	1, 2, 4, 6, 9, 38	One retired fisher marked a very large area encompassing a wide depth range of what he described as " <i>sponge weed</i> " (1); brown spongy weed growing on shells, with little tubes about the thickness of a pencil, like a coral, but spongy and smelling strongly of iodine. Trawl gear brought up so much of the weed it needed to be cut from the sweeps with a machete and " <i>gave your hands hell</i> ". Heavy fishing had removed this weed. A current fisher marked a small area (6) where large volumes of orange " <i>sponge weed</i> " could damage the net. In shallower water, a large area was described as untrawlable, with dog cockles, scallops, patches of bare rock, rock lobster, kina (2). A small area of rock / gravel in about 30 m was located where " <i>coral</i> " was found (4), and patch where shell hash (dog cockle and scallop shells) accumulated in undulations (9).	yes	3
Patea Shoals/ The "Rolling grounds"	3, 5, 7, 10, 11, 12, 13, 38	This area was marked by multiple fishers, many noting it as a large area of shell hash (10, 12), including dog cockles (13), also some patches of hard ground (11), and coral described as hard, white / cream coloured and " <i>lumpy</i> " (3, 5), another recognizing pictures of bryozoans (16). In deeper water, the trawl net could pick up very large (1-2 ft across) grey / brown sponges, called " <i>plumb duffs</i> ", which had a lot of "growth" on them.	Yes	9
Wanganui shelf – North and South Traps and Graham Bank	14, 15, 17, 18, 19, 20, 21, 22	Fishers marked a variety of habitats on this part of the shelf, including an area where large sponges were found, sometimes in great abundance (14, 15); a current fisher noted that droppers were used on the net to avoid picking them up. Further south, another area was described as sand hills with grey or cream coloured finger sponges (" <i>like trees</i> ") being picked up (21). Overlapping areas of reef, shell hash, scallop beds, " <i>sponge weed</i> " and " <i>lacey corals</i> " were also noted.		3
Bryozoan patch	25	Thought to be bryozoans, associated with leatherjacket catches.		1
Offshore sponge and coral	24, 28, 29, 30	This area was noted by three fishers for a high bycatch of both large grey / black sponges, called " <i>puddings</i> " and " <i>coral</i> " that was described as " <i>thin, grey clumps... gets quite large</i> ". Nets could get badly damaged in this area.		3
Shellfish beds	23, 26, 27, 31, 32, 33	Two adjacent areas of oyster beds on "hard packed sand" were described by two fishers, one recalling getting 8-9 sacks per tow. Further north substrate was muddier and several areas of horse mussels was drawn along the coast.		1
Kapiti Island Reefs	34, 35, 36, 37	Around Kapiti Island, two areas of Ecklonia beds to the north and in the Rauoterangi Channel were described (34, 37); these reefs were the start of the " <i>kelpy areas</i> " which extended south along the coast, where good catches of John Dory were noted. A small area to the south west of the island was thought to be a spawning ground for spotted		2

Patch of hard ground – see point 11 on the map – attached below

Large brown sponge 'plumb duffs' – found at the Project Reef also (*polymastia massalis*)

