

Chart Reference: New Disposal Site A0: approximate mid point NZ661 & NZ6612 45°44.1'S 170°48.0E.  
Existing Heywards Point disposal site: approximate mid point NZ661 & NZ6612 45°44.7'S 170°41.95E.  
Existing Spit Beach disposal site: approximate mid point NZ661 & NZ6612 45°45.93'S 170°42.62E.  
Existing South Spit Beach disposal site: approximate mid point NZ661 & NZ6612 45°46.80'S 170°42.78E.  
Legal description: Crown Land sea bed

**Submitter Details:**

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**The specific parts of the applications that my submission relates to are:**

Placement of harbour dredging spoil and its effects on surfers and the surfing venues – Aramoana Spit, Whareakeake, Karatane point and Beach.

**My submission is**

My name is Paul Shanks, I have been a surfer for over 40 years and I have been a NZ champion and represented NZ in surfing. My extended family have been involved in recreation and successful competition surfing for almost as many years. In fact my daughter won the NZ senior woman's surfing title in Dunedin. As a regional and national scholastic surfing coach, I have surfed and introduced many students to the waves that will be affected by the placement of the dredgings. In 2006 I was recognised with a MfE green ribbon award for my services to fresh and salt water by the then Minister for the Environment Mr Benson-Pope of Dunedin (who supported the monitoring of the Whangamata Bar).

The dredging spoils are going to affect the waves in a way that is unknown. It has been agreed that the placement of the dredging has improved the quality of the wave

at Aramoana for which we thank the authorities. However the continued current dredging and the proposed capital dredging of up to 7.2 million m<sup>3</sup> and the future maintenance dredging of possibly up to 1 million m<sup>3</sup> will have a detrimental effect on the surfbreaks at Aramoana and what is unknown is how much of this spoil will move northwards to affect the surfbreaks of Whareakeake and Karatane.

All of these three breaks are renowned nationally and internationally and are now recognised as “nationally significant features” in the national coastal policy statement. This location has three of the twenty nationally significant surfbreaks in the NZCPS policy 16. Socially, culturally and economically, these are assets for Dunedin.

### ***Policy 16: Surf breaks of national significance***

*Protect the surf breaks<sup>8</sup> of national significance for surfing listed in Schedule 1, by:*

- a. ensuring that activities in the coastal environment do not adversely affect the surf breaks; and*
- b. avoiding adverse effects of other activities on access to, and use and enjoyment of the surf breaks.*

### ***Schedule 1: Surf breaks of national significance***

#### ***Northland***

- Peaks – Shipwreck Bay*
- Peaks – Super tubes – Mukie 2 – Mukie 1*

#### ***Waikato***

- Manu Bay – Raglan*
- Whale Bay – Raglan*
- Indicators – Raglan*

#### ***Taranaki***

- Waiwhakaiho*
- Stent Road – Backdoor Stent – Farmhouse Stent*

#### ***Gisborne***

- Makorori Point – Centres*
- Waimui – Stock Route – Pines – Whales*
- The Island*

#### ***Coromandel***

- *Whangamata Bar*

## ***Kaikoura***

- *Mangamaumu*
- *Meatworks*

## ***Otago***

- *The Spit*
- *Karitane*
- *Whareakeake*
- *Papatowai*

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Because surfbreaks and the inter-tidal zone are so sensitive, we ask that the current applications are declined until more research has defined the effects of the spoils. There needs to be baseline studies and ongoing monitoring of the waves and sea floor by suitably qualified experts in the field of surf science –such as morphology/hydrology etc, who do exist. The results from this research must be used to create a positive for surfing and the natural ecosystem, thus enhancing the social cultural, ecological and economic well being of the Dunedin region for generations to come.

We ask that there is comprehensive and on-going water quality monitoring (including at the least BOD, pH, turbidity, heavy metals, nutrients, pathogens)

We seek that all players in the Dunedin Coastal Marine Area embrace the policies of the proposed National Coastal Policy Statement 2010.

We specifically want a halt of the consent that allows the 200,000 m<sup>3</sup> per year of spoil to be placed at the Aramoana Spit Spoil Site. In a consultation meeting between surfbreak protection society Nic Reeves, Mr Coe and Mr McComb, Mr McComb suggested no more than 50,000m<sup>3</sup>. There have been papers written that the port authority have not included in their assessment of effects of the surfbreak. They are by Dr Brad Scarfe and a dissertation for his masters from Mr Kilpatrick (attached). The substance of this assessment is that the Aramoana site is full and this is confirmed by documents supplied by the applicant. As Kilpatrick highlighted, that extra spoil at Aramoana at the quantity proposed of 200,000m<sup>3</sup> will create a swell barrier, rather a wave enhancer.

It is worth quoting from:

***A Research Dissertation submitted for Post Graduate Diploma in Science***

**Determining Surfing Break Components at Aromoana Beach, Dunedin David  
Kilpatrick November, 2005**

**“ 5.3.2 The Spoil-ground’s significance**

*The mound at the ‘spit’ dumping site has appeared in relatively recent times, with the spoil dumping starting in 1985. Pre-dumping bathymetric data available from POL reveal a generally smooth surface in pre-dumping times. The change in bathymetry over this period has potentially played a significant role in wave refraction. Using survey data of the spoil ground area from 1982, it was possible to test the bathymetry with and without the spoil mound to test the significance of the role that this mound plays.*

*The analysis of the role of the dumping grounds has the potential to influence decision making about the quantities that are dumped at this site and other spoil dumping grounds in the future. If the inputs can be managed in a way that best enhance surf conditions, then this would obviously be greatly advantageous to surfers. Analysis of the spoil ground’s role involved testing in MIKE 21 NSW of the refraction with and without the spoil grounds*

*Figure 5.3: These two CARIS HIPS 3D Subset Editor screenshots show the surrounding bathymetry with and without the influence of spoil ground dumping respectively. Data for the spoil ground pre-dumping was acquired from Port of Otago Limited. The areas between the dumping ground and the surf-break in the pre-dumping era were interpolated.*

*The fact that waves have been observed to break on the spoil ground suggests that the spoil ground may in fact be reaching its maximum size if it is to continue to enhance surf conditions at Aromoana. Once the spoil grounds reach a level where the waves break continuously on the spoil mound, only degenerative effects will be observed in the inshore surf conditions.”*

*To now quote from a further document supplied : "The transport of sediment from these disposal sites has been studied by Bunting, Single and Kirk (2003). This study concludes that there is no evidence to suggest that spoil from the Heyward Point site is moving north and contributing to siltation of the Blueskin Bay Estuary, nor is spoil from all three sites directly re-entering the harbour. The study shows that spoil discharged at the Shelly Beach and Heywards Point sites is quickly transported away from these disposal areas and is dispersed over the near shore. **In contrast, there is significant retention of spoil at the Aromoana site.**"*

*Also in the Port Otago Project Next Generation - Summary of existing physical coastal environment information and scoping for further studies By Martin Single John Benn, Prepared for Port Otago Ltd December 2007,*

*it says that 44% of the total spoil placed on the Aromoana site since 1983 has remained so there has been major accretion by man and natural forces at this location. The significance is that the spoil has settled outside and has created sandhills on the seabed. This is the gift that the port authority has given the world of surfing and this is why this surfbreak is protected under the NZCPS.*

**Disposal site AO**, being south of the entrance channel seems to be a more appropriate site for disposal of the 7.2 Million m<sup>3</sup> of spoil from the capital dredging, however this is an amazing amount of sediment that will be suspended and resuspended and on the transport sediment pathway north towards Heywood point and Whareakeake

(murderers bay) and a subtle south east drift into Aromaona Bay. The concerning thing is that maintenance dredging after the initial capital works will not be going to site AO, therefore we must assume they are going to the three current disposal sites and the current assessment is that the maintenance dredging will be anything from 500,000 to one million m<sup>3</sup> per annum. This places a lot of pressure for change on the sea floor on the three protected surfbreaks. If it exceeds 500,000m<sup>3</sup> it exceeds the current consent limit that is being reapplied for.

**Heywood point:** We note that in all the scientific data we have read, that most of the sediment placed at Heywood point disperses with little effect on the surfbreak, although there has been noted some change at Whareakeake

. However the placing of rock from the capital works at heywood point has not been fully assessed and maybe this should be placed elsewhere to maintain the current equilibrium.

### **New Zealand Coastal Policy statement considerations**

Under policies in the NZCPS, i.e :

#### ***Policy 13: Preservation of natural character***

*1) To preserve the natural character of the coastal environment and to protect it from inappropriate subdivision, use, and development:*

- c. assessing the natural character of the coastal environment of the region or district, by mapping or otherwise identifying at least areas of high natural character; and*

*2 Recognise that natural character is not the same as natural features and landscapes or amenity values and may include matters such as:*

- c) natural landforms such as headlands, peninsulas, cliffs, dunes, wetlands, reefs, freshwater springs and surf breaks;*

***Policy 15: Natural features and natural landscapes :****To protect the natural features and natural landscapes (including seascapes) of the coastal environment from inappropriate subdivision, use, and development:*

*d) ensuring that regional policy statements, and plans, map or otherwise identify areas where the protection of natural features and natural landscapes requires objectives, policies and rules; and*

Therefore the Port Authority needs to bathymetrically map all three surfbreaks that could be possibly affected by the spoil prior to disposing of spoil and after disposing of spoil to maintain the directives of the crown.

The port authorities are trying to intertwine recreation with their development, ie the fishermans wharf, which is good, however we must reiterate that surfing is recreation, and that it has been solely singled out as the only coastal recreational activity to be worthy of national policy under the RMA through the NZCPS.

Yet the port authority is doing nothing to enhance this surfing venue but potentially destroying it, but in the NZCPS, it is stated authorities are required to apply it, and I quote:

### ***Application of this policy statement***

*This NZCPS is to be applied as required by the Resource Management Act 1991 ("the Act") by persons exercising functions and powers under the Act. The Act itself should be consulted, but at the time of gazettal of this statement, its requirements in relation to this NZCPS are, in summary, that:*

- *regional policy statements, regional plans and district plans must give effect to this NZCPS (sections 62(3), 67(3)(b), 75(3)(b) refer);*
- *local authorities must amend regional policy statements, proposed regional policy statements, plans, proposed plans, and variations to give effect to NZCPS provisions that affect these documents as soon as practicable, using the process set out in Schedule 1 of the Act except where this NZCPS directs otherwise (section 55 refers);*
- *a consent authority, when considering an application for a resource consent and any submissions received, must, subject to Part 2 of the Act, have regard to, amongst other things, any relevant provisions of this NZCPS (section 104(1)(b)(iv) refers);*
- *when considering a requirement for a designation and any submissions received, a territorial authority must, subject to Part 2 of the Act, consider the effects on the environment of allowing the requirement, having particular regard to, amongst other things, any relevant provisions of this NZCPS (sections 168A(3)(a)(ii) and 171(1)(a)(ii) refer);*

In the report 2011/0707 section 2.1 peer review I would like to quote "*The Tonkin and Taylor peer review also acknowledged that simulating seabed disturbance, sediment discharge and sediment transport is not a precise science*"

This has been seen in the Spanish government's assessment of Mundaka, Spain, where they assessed placing of spoil was appropriate but found that it destroyed the surfbreak of Mundaka and then the economy of Mundaka and three years later had to cease the dredging. Tonkin and Taylor overviewed this in relation to the Whangamata marina.

And even in Tonkin and Taylor's own assessment of the Whangamata dredging and placement, the effects have found to be underestimated and the quality of the wave at Whangamata has diminished (another nationally significant surfbreak in schedule 1 of the NZCPS. This is why the commissioners need to consider policy 3 of NZCPS, ie:

### ***Policy 3: Precautionary approach***

1. *Adopt a precautionary approach towards proposed activities whose effects on the coastal environment are uncertain, unknown, or little understood, but potentially significantly adverse.*
2. *In particular, adopt a precautionary approach to use and management of coastal resources potentially vulnerable to effects from climate change, so that:*
  - a. *avoidable social and economic loss and harm to communities does not occur;*
  - b. *natural adjustments for coastal processes, natural defences, ecosystems, habitat and species are allowed to occur; and*
  - c. *the natural character, public access, amenity and other values of the coastal environment meet the needs of future generations.*