



Title: *“Fighting the Tide”*

Description: A king tide hitting the sea wall at St Clair.

Photographer: Nicola Pye

Where, when: St Clair, Dunedin, June 2015

Sustainability? The struggle to colonise the coast is a continuous one at St Clair and surrounds. Human intervention in reclaiming the wetlands to create South Dunedin, and sand-mining at Ocean Beach/St Kilda from the 1870s onwards, has meant we’ve created a cycle of erosion that we don’t seem to be winning. This sea wall is one of many attempts to protect the reclaimed coastline at St Clair, but is gradually failing, as so many endeavours have before it.

Sea level rise as a result of climate change will make the sea’s encroachment all the more difficult and to control in future. New Zealand’s sea level is predicted to rise anywhere between 0.46 and 1.05 meters by 2100. This wide uncertainty makes it hard to decide what to do, especially whether to withdraw investments and rebuild infrastructure (houses, roads, farmland etc.). The area around the St Clair area includes infill by a previous rubbish dump, so sea incursion could expose and disperse all manner of toxic material. Adjustments will be very costly for private individuals and our community. So who picks up the costs, and how can society better start recognising and factoring in the cost of doing nothing to prevent or reduce climate change in future?

One thing we can do is to prohibit further development of coastal areas that will be encroached when sea level rises, but this still leaves the thorny political question of what to do with the areas already developed – do we retreat or defend? Sustainability and environmental justice depend on have good governance and healthy community discussion to decide what to do.

Defence of an area like St Clair is not simply a matter of building the wall up by another 0.46 – 1.05 meters. It's the interaction of high tides and storm surges that does serious damage to the coastline. This photograph was taken at a king tide. If there was a howling southerly on top of that, I wouldn't have been able to stand where I took the photograph, let alone keep my lens and camera dry! The once in a hundred year 'perfect storm' is what we need to plan for. The photograph gives just a hint of the phenomenal power of the waves and why few built structures can withstand repeated pounding by that weight of water for decades on end.

Photo notes: *Camera:* Olympus OM-D E-M1. *Lens:* Olympus M.Zuiko Digital ED 12-40mm F2.8 Pro. *Settings:* f/10 1/500 sec ISO200 12mm.

I didn't have long to take this photograph, as the pounding waves were really shaking the Esplanade where my dog and I were sitting, and frightening the poor pup! We also got quite wet, but it was worth it. I had been waiting for a king tide with high tide occurring at a convenient time of day, and this worked out very well. Violently high tides are a fairly common occurrence along this part of our coast, and make for some amazing (and sometimes very funny) images.

Digital specs: 3696 x 2844 pixels (6.52 MB).

Key words: Erosion, shore, seaside, king tide, colonisation, high tide, texture, waves, reclaimed land, winter, beach, coast, climate change, costs of mitigation, adaptation, planning, Nicola Pye, Aotearoa, New Zealand, sustainability

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Donation: The price includes a \$100 donation to a sustainability organisation or project of your choice, or otherwise for Pet Refuge <https://www.petrefuge.org.nz/>.

Animals are often used as pawns in domestic violence situations, just as children can be. Many people delay leaving, or do not leave, dangerous relationships at home, as they may not be able to take their pets with them, and know that to leave them behind will not be safe. Pet Refuge provides temporary accommodation and care for animals, so that their owners can escape to safer places, knowing that their pet will be cared for until they are settled in a new violence-free life. This can be particularly important for children who may have lost other major relationships through domestic violence, and need as much emotional security as possible.

Image Ref: NP#003 (Please refer to this reference in orders and correspondence).

Nicola Pye
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