Prof. Andrew D. Short OAM is a marine scientist specialising in coastal processes and beach dynamics. He has degrees from the University of Sydney, Hawaii and Louisiana State.

He is presently Honorary Professor in the School of Geosciences at the University of Sydney.

Deputy Chair of National Surfing Reserves (Australia); and on the Executive Committee of World Surfing Reserves. He has written 12 books and over 200 scientific publications.

His extensive contribution to both coastal science and beach safety was recognised in 2010 with an Order of Australia Medal.

Prof. Short says:

Yeah, in 1986 they constructed the seaway. It is a human construction and what it did, it stabilised what was a very dynamic and extremely dangerous, the old Nerang entrance, which was migrating northwards 40 km a year. So the seaway stabilised. the entrance, made life a lot safer for navigation, and in doing so, it produced a big delta, what we call an ebb tide delta. Now what happens, wave shoal over the ebb tide delta without breaking, and because of that, when they get to the beach, they only produce one bar at the beach not two bars which is typical of the Gold Coast. And so the other side, the well known surf break on South Stradbroke Island only has a single bar which it very important, why it is such a good break. The other thing that the waves do when they pass over this ebb tide delta is that they refract, they bend around, you may see waves wrapping around the headland; they refract. That wave refraction is variable because of the shape of a delta and it causes wave cranes to cross and produces this fairly complex and peaky wave at the shoreline. And what TOS is renowned for, is the waves breaking close to shore, peaking up and getting very heavy strong tubing waves, a fantastic surf break. So that the entire break is the product of a man made seaway.

The dredging would cut a deeper channel across part of the ebb tide delta, there is no doubt about that, but a deeper channel means there is going to be slightly less wave shoaling which means the waves should be a little higher at the shore, not much, just a tiny bit higher at the shore, but you will still get the complex wave refraction so you should still get the peaky waves at the shore. So, if anything, if the dredging goes ahead, the waves should essentially be identical, if anything a tiny bit higher.

In the opinion of one of Australia’s leading wave experts…. Waves at TOS would be almost IDENTICAL after further dredging the seaway.