

## Introduction to the submission

*"Whether from ignorance, from oversight, or from lack of judgment, many of today's worst mistakes in coastal development stem from a failure to evaluate properly coastal geology"*

Morton Thom and Locker (1973)

With the support of the Whangamata Committee Maori (WCM), I Paul Shanks oppose all consents application for the making of a marina in the Whangamata Harbour as proposed by the Whangamata Marina Society (MS).

This opposition is based on a number of points. These are:-

1. The MS "Assessment of Environmental Effects"(AEE) has given no consideration on the impact the proposed activity will have on areas outside the boundaries of the proposed development. In particular; upstream of the Moana anu anu estuary and the area covered in this submission, the Whangamata Harbour Bar (Bar) and beach foreshore.
2. No significant research has been undertaken, or sufficient information supplied which shows the immediate or cumulative impacts the development will have on the tidal flow, tidal velocity, water speed, water quality and wind flow in and around Whangamata Harbour, in particular the bar entrance.

These points are discussed in the following section. However with the WCM and I also object to the proposed marina because

3. The activity does not promote sustainability as defined under the RMA (1991)
4. Maintenance dredging figures have no exactness. The Marina Society does not give a forward plan of say 20 years where these dredgings will be put. There are no precise dredging estimates. The Marina Society appeal to the Marine Consent state their own figures might need to increase by 10% ie 20,000 cm<sup>3</sup>. These dredge dump sites, will set a dangerous precedent in terms of developers wishing to use public land as part of their development, as does the the whole marina proposal.

## **1 Lack of consideration into impacts the proposed development will have on the Bar and beach foreshore, and the Social, Economic consequences**

"The Whangamata harbour is a shallow river valley located on the Coromandel Peninsular's East Coast. The valley was flooded by sea level rise around 6,500 to 7,000 years ago. The harbour is approximately 435 hectares and one of the smaller estuaries on New Zealand's North Island East Coast. Approximately 75 percent of the total harbour area is inter tidal. This means that three quarters of the harbour floor is exposed at low tide. The harbours associated catchment is an additional 5188 hectares."<sup>2</sup>

The entrance to Whangamata harbour is dominated by a relatively large tidal delta with an associated offshore bar merged into its eastern fringe - known to the local as the "Bar". It is entirely sand as the currents, tidal action, and swell movement remove all sediment. All outgoing/incoming water must pass through the narrow harbour entrance. Three hours each side of low tide the Bar is partly exposed, with the channel from the harbour entrance to Te Karaka Point being its southern flank. Thus all outgoing / incoming water, at the point of its greatest volume has to go through a channel sometime less than 20 metres wide.

The bar dissipates wave energy and in doing so significantly effects to the physical state of Whangamata beach, by trapping sediment on both the ebb and flood tide, providing a sediment store for diabathic and parabathic sediment flow.

In doing so the Bar has formed one of the most pristine surf spots in New Zealand, (if not the South Pacific) forming perfect waves at times peeling for over 500 meters. Characteristics of the Bar which give it it's own character in comparison to other surf spots are :-

1. It's a total sand bar.
2. Exceptional and consistent quality shaped waves for board riding
3. It can produce a long ridable waves under a metre, making it a perfect 'surf nursery'
4. The 'takeoff area' of the bar is reached by the harbour channel making getting out safe and accessible.

### **The Social importance and significance of the 'Bar'**

- The Bar has been described by the worlds's foremost surfer, Mr Jerry Lopez of Ohau Hawaii, as the "Gem of the South Pacific". The Bar was recognised from the late 1950's as a premier surfing location, attracting surfers nationally and internationally.
- Two of the worlds top surfboard designers, Alan Byrne and Rodney Dalberg, spent years honing their skills in Whangamata - Why? Because of the Bar.
- The Bar adds to the mental and physical wellbeing of the youth of the town, ranging in age from 4 to 64 years old.
- The Bar has produced 10 National Surfing Champions and many more New Zealand representatives. 95% of the Coromandel Scholastic Surf Team over the last 10 years have come from the Whangamata Area School.
- I met my wife on the Whangamata Bar and have since surfed there with my

<sup>2</sup> Current activities and information held by Environment Waikato in Whangamata Harbour Environment Waikato, July 1999

three daughters. Many families are similar. Life long friendships are made on the Bar, it's a melting pot of personalities. I met my friends in the WMC on the Bar

- Surfing is Whangamata. It permeates lifestyle and fashion giving the town a unique flavour.
- The Bar has been featured on three movies - "Out of the Blue", "Beautiful Day" and "Children of the Sun", numerous surfing magazines and videos, even the in flight Air New Zealand Magazine chose to write on Whangamata because of the Bar and its dominant surfing history.

#### **The Economic importance and Significance of the Bar.**

- Surf tourism and the surfing industry is a major influence in the economy of Whangamata
- An industrial cluster has been built around the surf industry, Whangamata has three surf factories and five surf retail outlets plus numerous related surf / surf fashion businesses based in Whangamata, in what was once an isolated rural community.
- Surf and surfing motifs permeate the town from the Whangamata Area School, the Public relations office, and throughout the commercial district.
- Surf and surfing is what people associate with Whangamata.

## **2 Lack of investigation into adverse impacts of the proposed activity**

Whangamata harbour is a shallow river valley and one of the smaller estuaries on New Zealand's North Island East Coast. The MS AEE does not include what environmental effects their proposed development will have on the Bar or at the Harbour entrance generally. The harbour entrance and its sand bar are an integrated part of the Whangamata harbour and the MS AEE cannot neglect this.

The stability of tidal inlets and associated deltas, is a dynamic stability by which the parameters involved attempt to maintain a situation characterised by relatively small changes in inlet geometry, i.e. location, plan form, shape and cross sectional area<sup>3</sup>. Our concern lies in the fact that there has not been any significant research which models or predicts what will happen to the Bar area if sediment is removed from this dynamic system. How will the equilibrium respond if such a large mass of sediment is removed from the inlet? How will it further respond if maintenance dredging is permitted?

Data provided by Works Consultancy Ltd<sup>4</sup> stated that "the tidal prism for Whangamata Harbour is assessed at  $2.46 - 2.74 \times 10^6 \text{ m}^3$ . The effect of the marina is to increase the tidal prism marginally. 0.6% increase in tidal prism...the increased tidal prism will have a useful effect in the marina entrance channel where the volume will assist in increased flow in the latter part of the tide" Also not enough data on the effects of tidal velocity and water speed rate are given in regard to the building of a control structure / weir. Again the most influence on environmental effects the control structure will have is in the latter part of the tide. This is also the times that the Whangamata Bar produces its naturally formed waves.

We believe that this increase in the tidal prism will adversely effect the harbour entrance, the Bar and the quality of waves it produces. To date, no consideration has been given to what impact this may have. We have not been able to find a precedent for the inner harbour control structure to see what effects it could produce.

The MS should have considered the impact their development will have on the whole harbour especially the entrance and the Bar. Not only for the reasons outlined above, but also because the Bar prevents the formation of a 'flood tidal delta'. Because the wave action on the East Coast is strong, ebb delta shoals and their associate Bars act as a 'bridge' for material to cross the inlet under the influence of tidal and littoral long shore currents.

Inside the harbour mouth, adjacent to the bar there have been some dramatic changes with large volumes of shifting sands changing the shape of the Wharf area. These have been noted with regular concern by the Harbour master in his monthly reports to the Community Board. This area seems to be in a state of flux. Any AEE of this and the bar would need to be done over many years to see if there are any patterns (of shifting sands)

<sup>3</sup> Healy T, Stability of Tidal Inlets Paper presented to MSc students, 1995

<sup>4</sup> Works Consultancy Ltd, Assessment of Environmental Effects 1995

### **3. No significant consideration given to the increase in Maritime Traffic and the issue of safety.**

The MS has not considered either the safety implications or the negative impact increased boat traffic will have on the Bar

Currently, the small channel between the bar and the headland is already a congested waterway. When ever larger craft, those that use moorings because of there size, enter this shared channel, they push down the degree of safety of all channel users, surfers, trailer boats, sailboats, jet skis, sail boarders. Surfers, trailer boats, sailboats, jet skis, sail boarders are the main harbour users and there numbers are always increasing. Moored craft users are the minority but there activities have the most impact on the harbour, they require the most space and facilities to the detriment of all users.

With in the Bar area larger craft pose the most danger because of there height and lack of manoeuvrability. Large craft also spoil wave shape with their wake causing a side wash through the wave face creating further safety hazards as well as degrading the wave quality.

The 1992 Approved Harbour Management Plan<sup>5</sup> is the first plan which designated the Marina Policy Area. The traditional ski lane becomes a interim ski lane but to be re sited when harbour access is required (for a Marina) and the ski lane is shifted to the harbour entrance and Bar channel. These changes were made without any thought for the safety of any of the users of this area and without any consultation with the affected parties as required under the RMA 1991. We now fear that the Outer Whangamata Harbour will become a designated channel for the 205 Marina berth holders and banning the thousands of surfers who use the channel. Similarly, no due consideration has been given as to what impact this increase in boat traffic will do to the near shore environments on either side of the harbour entrance.

### **4 Increase pressure on public utilities.**

The marina will connect 205 more users to an already overloaded sewerage system and one that has come to the 'end of its design life'<sup>6</sup> Also as part of this development there is 42 lot subdivision, zoned Extra density policy Area<sup>7</sup> Also the MS wish to include industrial facilities such as a hard stand for washing down boats. No considerations has been given to the possible negative impacts this will have on an already overloaded sewerage system which has breached its own resource consents.

### **5. An example of a mistake in coastal development stemming from a failure to evaluate properly coastal geology**

The Willamson Park storm water outfall, to the left of the surf club on Whangamata Beach; is an example of engineering a natural phenomenon resulting in constant engineering.

<sup>5</sup> Whangamata Community Board, 7/9/92

<sup>6</sup> Dave Steward, Future options for wastewater treatment in Whangamata Montgomery Watson, June 1999

<sup>7</sup> Strategic Planning and Asset Management, TCDC Ordinary Meeting Order paper 30 June 1999

A natural creek constantly percolated through the sand into the sea. Coming above the sand only in times of heavy rain. A dam was built using stones tied in wire mesh, creating a storm water lake on the southern beach boundary of Williamson Park.

This dam frequently bursts fouling the beach and requiring re building. Previous to this the constant flow of the natural creek had formed sand ripples across the large intertidal area and into the sea. This made a A frame beach break working best around mid tides and holding swell between .5m to 2m. Gone.

### Conclusion

The extent to which potentially adverse environmental effects are given weight under the RMA (1991) an important factor is in its ability to protect environmental amenities. We believe that the Bar is not only an environmental amenity, but also an important social and economical amenity. The potential for the proposed activity to adversely effect the Bar as outline above means that I and the WMC oppose the proposal in it entirety.