

Human History

To understand the significance of the experiment, we have to retrace our steps through the history of Tauranga Harbour to a time when humans first came to New Zealand. The shores of the harbour have always been a popular place to live; large Maori settlements flourished on the peninsula fingers and people fished and gathered kai moana in the rich, shallow waters. Today about 55,000 people live around the harbour, using it for food gathering and recreation, and enjoying its beauty.

Our population puts great pressure on the harbour. The peninsulas are narrow, fringed with sandy beaches, salt marshes or mangroves. Around Tauranga City, decades of reclamation have provided land for industry and the port. In the country, stop banking has replaced salt marshes and wetlands with pasture. Much of the fertile wetland fringes, the larder and nursery of the harbour, have been destroyed.

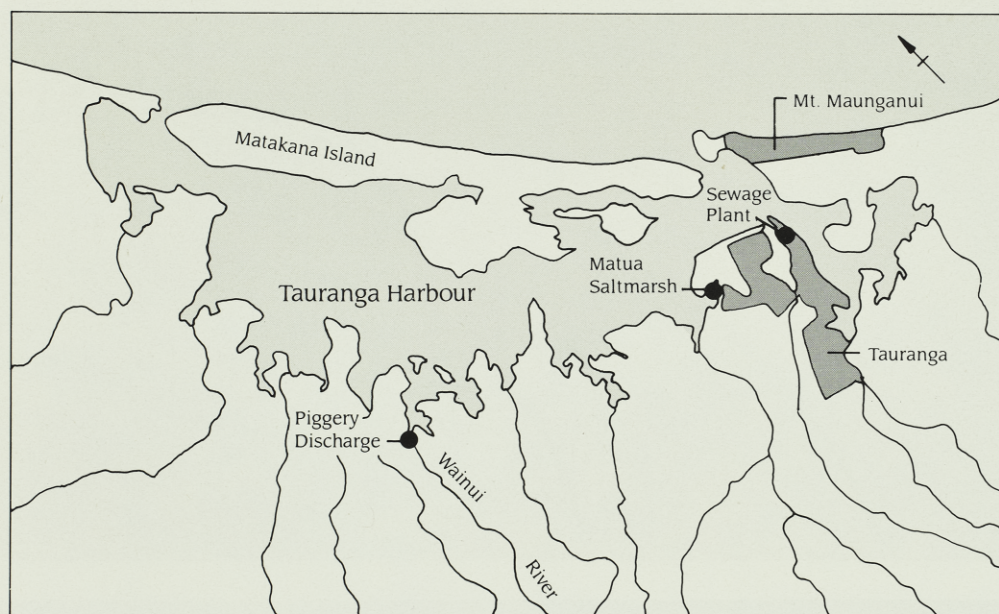
In 1985 the Tauranga City Council sought to protect the city salt-marshes with an Estuarine Protection Zone. However, this tentative step towards environmental protection was shortlived when owners threat-

serve. This will be a joint effort involving the Tauranga City Council, the Department of Conservation and the QE II National Trust.

Besides reclamation, Tauranga Harbour is entirely surrounded by housing, orchards and farms. From the orchards and farms comes run-off containing spray residues, fertilisers and effluent. From the urban areas comes storm water, contaminated by petrol and chemicals from factories, enrichment from septic tanks and treated sewage from Tauranga city. The city sewage discharge, opposite the harbour entrance, was designed to operate on the outgoing tide, taking the effluent out to sea. Now overburdened, the treated sewage is discharged continuously, so much of the enriching effluent is dispersed up the harbour.

126,000 Litres of Pig Effluent

It was against this background that Tauranga Forest and Bird learnt of a proposal to seek planning permission and water rights to discharge 126,000 litres daily of pig effluent into the Wainui River estuary, roughly in the middle of Tauranga Harbour.



ened the council with compensation demands should their plans to reclaim and develop their salt marshes be thwarted. The Estuarine Protection Zone was quickly revoked.

In 1986 Tauranga Forest and Bird and Kaimai Native Forests Action Council engaged the Environmental Defence Society to dispute the City Council's action before the Planning Tribunal. The case rested upon the Town and Country Planning Act, section 3c, which requires "preservation of the natural character of the coastal environment and the margins of lakes and rivers and protection of them from unnecessary subdivision and development."

In a landmark decision, Judge Moore decided that the Estuarine Protection Zone should be reinstated and strengthened, and such zoning would not involve compensation to the owners. This is a major triumph for local conservationists, and has set a precedent for saltmarsh protection elsewhere. At present the 25-ha Matua saltmarsh, the largest in the city, is under negotiation for purchase as a wetland re-

The piggery has an existing right to discharge 22,700 litres of scantily treated effluent, and wishes to increase the discharge to 126,000 litres daily to provide for up to 10,000 pigs.

Tauranga Forest and Bird objected to both the planning application and the water right on the grounds that the discharge would enrich and pollute the harbour waters, to the detriment of the ecosystem and the people who used that estuary for recreation and shellfish gathering.

To provide factual material to support our objections, a group of members and local residents went out to monitor the discharge. The Wainui estuary is very shallow and muddy, fringed with dense mangroves. Except at high tide the mudflats are entirely exposed, with only the Wainui River snaking across them.

The piggery discharge takes place into a drain leading to the river, and is controlled by a flap valve. As the tide falls, the reduced water pressure allows the valve to open. Effluent then flows out the valve for about three hours over the low tide period, until

the rising water recloses the valve.

To track the effluent we put grapefruit in the still water in front of the discharge valve, before it opened. Citrus are excellent for tracing discharges because they float nearly submerged, offer little resistance to the wind, they can easily be spotted by observers and are cheap and biodegradable when lost!

As low tide approached we watched the discharge valve slowly open, allowing an inky stream to first trickle, then pour out. There was a strong smell of sulphur. The grapefruit and the effluent then moved off as described earlier until, after two kilometres, they dispersed further over beds of cockles and pipis.

Alarming Coliform Levels

Tests on the effluent initiated by local residents and the Conservation Department revealed alarmingly high coliform bacteria levels, and very low B.O.D. (oxygen) levels, showing that the effluent was practically raw sewage – bad news for shellfish beds.

And the result of all this activity? The pig farm company has withdrawn its application for an increased water right. It is now investigating a new management regime involving housing the pigs on a deep layer of sawdust to absorb most of the effluent, and treating the remaining effluent through ponding and a created wetland.

Small victories like this give us hope that the ecology of our harbour can be protected and eventually enhanced. The Catchment Board, never in the vanguard of conservation, has been embarrassed at the revelations of how their lack of policing allowed the pig farm to flaunt the conditions of the original water right. They have now initiated a major water quality survey of the harbour which will provide standards against which further discharges can be evaluated.

The local Forest & Bird branch has shown that, not only can we lead public opinion in environmental issues, but we can actively investigate and document cases to promote the wellbeing of our communities.

Secret Sell-Off Of Our Coastlines?

The Minister of Transport Bill Jeffries appears to have shut out public comment on land being sold to Port Companies. The land assets of Harbour Boards that could be sold to the companies include: *nationally important mangroves and saltmarshes in Auckland's Waitemata Harbour; * the extensive Aramoana saltmarsh in Otago Harbour; *an island in Ranganui Harbour, Northland, which is a roost for 8000 wading birds and breeding site for the endangered NZ dotterel; * parts of Napier's well known Ahuriri estuary; * The Sugarloaf Islands marine park in New Plymouth.

We have appealed to Associate Environment Minister Philip Woollaston to intervene and ensure the Government's land allocation criteria are applied through a public process – this way we feel the areas will be allocated to the Conservation Department.