SAVING THE SEA

Now during the sewerage debate in New Plymouth I got very angry once on the marae at Manukorihi because all the engineers were standing there saying what they ought to do and what they ought not to do and so on, and the Māori had on the roofs of their marae the most beautiful designs which are directly related to the understanding of the sea and the elements, and I said if you really want to find out how you can solve your problems in terms of the Taranaki landscape look at the bloody roof and stop talking nonsense. Michael Smither, from a lecture at Victoria University, 23 June 1983.

In 1978 the New Plymouth City Council proposed a 1600-metre outfall pipe for the disposal to sea of untreated sewage at the Waiwhakaiho River. When the news broke, local organisations — including Te Ātiawa, the National Council of Women, the Underwater Club and the Bell Block and Districts Residents' Society — immediately lodged objections to the granting of a water right on environmental and cultural grounds.

Te Ātiawa kaumātua Aila Taylor, representing Māori trust boards from Whitecliffs to Pātea, gathered a petition of 3,500 signatures, but a water right was granted for the project in December.

Early the next year, hundreds of concerned people attended a hui hosted by Te Ātiawa at Ōwae Marae to discuss the next moves.

The protest organisers led by Freda White became an official group — Clean Sea Action Group Inc — and along with Te Ātiawa took their case to the Government. When more than 8,000 residents signed letters opposing any loan for the outfall, the Local Authorities Loans Board approved finance for reticulation works only. The Council had then to decide on its treatment and disposal options.

In April, 1980, the New Plymouth City Council voted to continue with its original scheme. In the meantime, a Clean Sea Action Group think-tank, led by chemical engineer Ken Holyoake, had secretly been investigating two land-based treatment alternatives of comparable cost. In September they were unveiled.

In the 1980 local authority elections, 15 candidates stood on the Clean Sea Action Group ticket. Six were elected and David Lean, who supported land-based treatment, became the city's mayor.

After a long and sometimes acrimonious debate in June the following year, the Taranaki County and New Plymouth City's joint waste water committee proposed, by a vote of 6-5, a Carrousel treatment scheme — as recommended by the Clean Sea Action Group — with disposal through a 450-metre outfall.

Although the County Council later voted against the scheme, the New Plymouth City Council followed up with another close vote in favour of land-based sewage treatment for the city. The battle was won.

this is a broadsheet drawn up by the

TARANAKI CLEAN SEA ACTION GROUP

Before you buy anything you must be convinced it is worthwhile – that is just good, basic housekeeping.

While you do not want to spend too much, you will also be wary of so-called bargains that may eventually fall apart at the seams. If you are wise you will shop around before you make your final choice.

New Plymouth is soon to invest a considerable amount of money in a new sewerage scheme. The council has proposed a scheme to discharge raw sewage into the sea through a 1600m outfall at the Waiwhakaiho River.

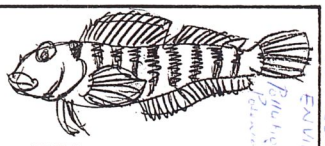
Groups including the New Zealand Medical Association, the Bell Block Residents' Association, Taranaki Maoris, freezing workers and many others have strongly opposed the scheme. Representatives of the groups have pooled their resources to present their case here and help you make up your own mind.

PHILOSOPHY

Can you accept the basic philosophy that raw sewage should be tipped into the sea?

Supporters of the present proposal argue that the sewage is not in fact raw but "comminuted" (quite simply, chopped into pieces 5mm in size) and passed through a "diffuser" (a pipe with small holes which help dilute the sewage with the sea water).

We find the prospect of pollution of our seas abhorrent. Sewage is sewage regardless of its size.



EFFECTIVENESS

What guarantee do we have that the proposed scheme will be effective?

The formulae used to establish the length of this outfall, depth and size of the diffuser etc., were developed by Californian engineers who clearly stated that the success of sea discharge relies on a sweeping ocean current. Without this current, they claim, "an intolerable concentration of sewage" would build up and sewage would be discharged into older sewage and not clean sea water.

Tests carried out by the consultants show that the Taranaki coast has weak tidal currents but no usable ocean current.

The consultants admit that it seems "impossible to avoid some shoreward movement of the effluent field during an onshore wind". Hourly measurements collected at the New Plymouth airport over the last 10 years show that 55% of our winds are onshore.

An effective outfall relies on the mixing of fresh water which carries the sewage, with the salty sea.

The New Plymouth Underwater Club claims the Taranaki coast is not capable of large scale dilution. It reports the discovery of a 300mm thick effluent layer of floating mustard-coloured scum with solids suspended underneath, two miles from the recently installed Waitara outfall. Tests showed the scum was faeces with a high bacteria count.

CONSEQUENCES

The consequences of adopting a cheap outfall system, we believe, extend far beyond the pollution of our beaches and shellfish beds.

"One worrying thing about direct outfalls is the tendency for heavy industry to congregate around these areas because trade effluent control will be rather less efficient than it would be if the sewerage went to a treatment works. The reason for the trade effluent control when effluent goes to treatment works is to protect the treatment processes and to a certain extent to protect farmland if sludge is deposited onto the land." (evidence presented at the tribunal hearing for water rights for the council's proposed scheme).

This suggestion becomes even more sinister when considered along with the "fast track" concept of the National Development Bill and the lack of any classification of Taranaki coastal waters.

HEALTH

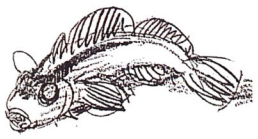
Taranaki doctors believe the discharge of raw sewage into the sea through the outfall system will seriously jeopardize the health of local people. The Taranaki branch of the New Zealand Medical Association has resolved to oppose the scheme.

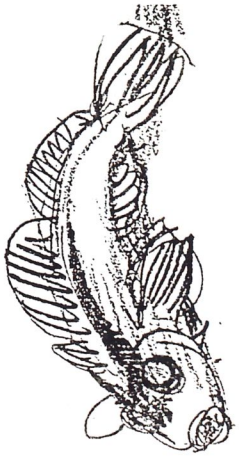
Because human sewage contains both bacteria and viruses, any likelihood that it may return poses a serious threat to health. Bacteria once discharged into sea water have a life expectancy of up to 12 hours and possibly longer if hosted by shellfish. They are responsible for typhoid, paratyphoid and sores.

The viruses live up to 12 days, especially in shellfish but also in water. They can cause poliomyelitis, gastroenteritis and hepatitis. Hepatitis can be a fatal disease. In the New Zealand Medical Journal of January 9 this year, consumption of raw shellfish is documented as the third most frequent source of hepatitis infection in an Auckland study. Twenty-four such cases were recorded between July 1978 and June 1979.

Industrial waste is another potential health hazard because its discharge through an outfall cannot be monitored. The discharge of mercury, arsenic and acids can lead to subtle and cumulative poisoning of humans. Taranaki's potential for industrial development and its lack of trade waste by-laws suggest a real danger.

The time required by seawater to kill bacteria is called T90. The proposed scheme is based on a T90 of four hours and assumes that if it takes effluent five hours to reach the shore there will be no health risk. A specialist in sewerage for the Ministry of Works and Development, Dr M. Patrick, says the T90 rate for *primary* treated effluent on a bright summer day with maximum solar radiation could be as low as two hours. In unfavourable conditions he estimates it could be 40 – 50 hours. The sewage pumped into the sea in the proposed scheme does not receive primary treatment but is raw. Will four hours be a sufficiently long T90 to ensure our good health?





Taranaki Clean Sea Action Group broadsheet (1979)
Michael Smither (sketches), Susette Goldsmith (text)
Digital reproduction on paper

A New Plymouth City Council public relations exercise with public meetings and brochures explaining why it backed its proposed sewerage system was countered by a roster of Clean Sea Action Group members who attended every meeting, and broadsheets like this one that expressed the opposite view.