

Time to get serious about clean water

A strong case was made for the use of an electro-coagulation unit to reduce pollution of the marine environment from the wastewater plant at Taipā to the Northland Regional Council's independent commissioners over a three-day hearing last month, but those urging the adoption of the technology did not pick up especially good vibes.

Clean Waters to the Sea (CWS) Charitable Trust chairman Wayne Parsonson, who noted that the wastewater plant had been operating without a consent for more than decade, said it was time to get serious about clean water, and the case made for electro-coagulation had been compelling.

The commissioners reserved their decision.

The trust, Mr Parsonson said, had been part of a big community effort. Hapū from Parapara, Taipā and had invoked, in the strongest possible terms, tikanga Māori values and kaimoana traditions, leaving the commissioners in no doubt that the pollution of the Parapara Stream and Aurere outfall had to stop.

"CWS gives great credit to this combined hapū effort to demand improved environmental outcomes."

Meanwhile, Mr Parsonson had presented a submission from Taipā resident Andreas Kurmann, whose career was having oversight of 44 Swiss wastewater plants, and who believed that the highest water quality outcomes could be achieved at Taipā with an EC2 electro-coagulation unit.

Aerial photographic evidence was presented, showing the wastewater plant and the receiving wetland ponds in full algal bloom, and a seawater bloom at Aurere.

"Algal blooms are toxic to waterways.



Taipā's wastewater ponds in the grip of an algal bloom in December 2017.

In the sea they result in the shellfish harvest bans we are familiar with. They indicate unnatural nutrient overload, and CWS completely refutes the FNDC expert witness' contention that the nutrients in this instance are sourced from upstream farm runoff," Mr Parsonson said, adding that some of the district council's evidence was derived from people who had never been there.

Since the hearing Mr Kurmann has answered further questions from the commissioners by email, disputing the council's claim that upgrading the system to enable it to achieve international water standards could cost \$20 million.

"We can solve the pollution problem for well under \$2 million, which is far cheaper than all the other upgrade options, and it actually works," he said.

The EC2 unit would cost \$950,000, a two-way water decanter \$200,000, with

\$85,000 for the complete installation. He estimated annual running costs at less than \$100,000, including \$73,000 for electricity.

The trust had proved that electro-coagulation could remove 95 per cent of phosphorus, 99.9 per cent of E. coli bacteria and algae, 85 per cent of nitrates and 50-60 per cent of ammonia.

Mr Parsonson, who said the trust believed mayor John Carter had been let down at the hearing by his engineering department, told the commissioners that engineering departments were reacting defensively to "disruptive" new water cleaning technology as the transport and accommodation sectors had reacted to the advent of Uber and Airbnb, "but the world moves on when the business case stacks up".

He responded to the commissioners' claim that they could not recommend a



Clear evidence of an algal bloom at Aurere, also in December 2017.

specific treatment option, saying their consent conditions would be a de facto route to an EC2 installation, described by Mr Kurmann as having a smaller "footprint" than traditional systems, with less odour, less visual impact, and capable of creating ponds and waterways that would allow fish and birdlife to flourish.

"Once the treated wastewater has passed the EC2 unit and the two solids separation stages, it will no longer create a pollution problem to the receiving environment. In fact the water quality will meet the recreational standards for creeks and rivers, making it safe for swimming. This is the outcome our community wants," he said.

"The independent commissioners were delivered a strong, unified message by local Māori leaders and community representatives," Mr Parsonson added.

"They have been shown a reasonable way forward. Their consent decisions are awaited with an expectation of finally turning a corner towards solving our pressing wastewater pollution problems.

"It's time to get serious on clean water, and we have the technology," he said.