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## Lake Horowhenua contamination from sewage plant confirmed

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Horizons Regional Council has confirmed Lake Horowhenua was contaminated by Levin's waste water treatment plant during winter flooding.

The results were not unexpected, compliance manager Alison Russell said.

Earthworks were done around the swollen ponds to reduce contaminants entering surrounding groundwater, surface water and the lake.

However, nitrogen, which is highly soluble in water, can leach easily through soil, Ms Russell said.

"There was a zone of nitrogen leaching apparent in lake waters in the vicinity of the Levin STP [sewage treatment plant]."

The effect was difficult to quantify because Lake Horowhenua constantly had extremely high nitrogen concentrations, Ms Russell said.

The lake already suffered from eutrophication, as serious environmental concern throughout the country.

"Consequently, any increase in nitrogen leaching into the lake waters has the potential to increase the risk, duration and frequency of toxic algal blooms and other eutrophication effects in lake Horowhenua," Ms Russell said.

Samples taken from the lake near the plant on September 4 showed high levels of E coli, which confirms faecal contamination occurred.

But the lake would have still been within safe swimming guidelines and Horizons' Proposed One Plan, an environment proposal covering air, water and land objectives, policies and rules, Ms Russell said.

Total nitrogen exceeded the Proposed One Plan standard for the lake and soluble inorganic nitrogen was elevated.

Both nutrients were significantly higher at incident sites compared with reference sites away from the plant. Incident samples were compared with water quality data from different sites, which are tested monthly for state of the environment purposes.

Horowhenua Mayor Brendan Duffy would not comment on the results as he had not seen them.