

## Deterring the use of detergents

Last updated 11:38 18/07/2011

There's a revolution going on in the laundry. **JANINE RANKIN** finds out why it is worth opting for phosphate-free detergents.

Every year, it costs \$500,000 to remove phosphorous from the water Palmerston North homes and businesses flush down the drains.

The city council has to fire up the phosphorous removal tank at its Totara Rd wastewater treatment plant on an average of 130 days a year so its discharge to the Manawatu River complies with its Horizons' Regional Council consent.

The requirement kicks in when the river is at low flows, typically during summer.

The days are long, the weather is warm, it's just right for swimming, but any dissolved reactive phosphorous in the water, along with lashings of nitrogen, completes an ideal recipe for algal growth – discouraging for swimmers, and unhealthy for other kinds of river life.

While a great deal of the phosphorous in the river comes from land, where it is a key ingredient in fertiliser, the issue for the city council is the volume of phosphate-containing detergent from commercial and domestic use flowing through its plant.

This month the council has introduced a new trade-waste charge for phosphorous to help foot the bill.

About 30 businesses that have their discharges into the city network routinely monitored are likely to be hit by the charge, and although they all received letters warning them of the pending charges, none wrote submissions in opposition.

"These are users with a higher-than-domestic load," says planning engineer Natasha Simmons.

"It's not just charging for the sake of it, but an attempt to ensure they pay their fair share for what they use over and above the average population."

Even so, the council expects to recoup less than \$100,000 from the new charge.

It might be less, if those businesses change their practices and use cleaning products containing less phosphorous.

Testing at their point of discharge every three months will be carried out, and if the concentrations drop, so will their charges, providing an incentive for them to use less.

The rest of the cost of removing the phosphorous falls on domestic users. The cost is built in to the annual charge for stormwater services of \$144 a year.

The bulk of the cost of phosphorous removal is the price of the chemical used for the job, aluminium sulphate.

The council spends about \$400,000 a year on supplies – the rest of the cost includes electricity and plant operations.

Phosphorous binds readily to the aluminum sulphate, and another agent is used to bulk the molecules into large particles that sink to the bottom of the tank, where they are collected, spun dry, and used as a sort of compost to cover the closed city landfill.

The process is successful in removing 95 per cent of the phosphorous, reducing the concentration from the four to six grams per cubic metre to less than 0.3 grams per cubic metre.

It is a cost that could be slashed if people stop using products containing phosphates.

Horizons Regional Council environmental scientist for water quality Logan Brown has welcomed the city council's decision to start charging businesses for phosphorous removal.

Not only does it provide an incentive for businesses to switch to lower-phosphate detergents, but it also provides a signal for the public to think about the part they play.

While the land-based use of phosphate fertilisers loads up the river well before it reaches Palmerston North, there's still a case for reducing the city's contribution.

"It's everyone's river, and we can all make a difference. Switching detergent may be a small thing, without an additional cost for households, but everyone's decisions count.

"There are little steps people can take, that could hopefully reduce the costs of the rates bills."

New Zealand has no national policy about reducing the use of phosphates in cleaning products, but it does have some leaders showing the way.

Ecostore was set up in 1993 to produce a healthier, more environmentally-friendly range of household cleaners, body care, pet care and organic gardening products.

Phosphates are one of the ingredients the company avoids as part of its "no nasty chemicals" efforts.

"There was a challenge finding alternatives," says founder Malcolm Rands.

"But now, the technology is sitting there. It has just been cheaper and easier for the big companies not to do it. Most of them have had phosphorous in their products until very recently. Now they are making a big fuss about something they could have done years ago."

Mr Rands says removing phosphates from detergents is just a start.

"It's only one of many nasty chemicals – it's almost one of the most benign.

"It's the lowest common denominator."

But it is a first step. He says what New Zealand really needs is regulatory change that demands proper labelling of cleaning and cosmetic products so consumers can tell what's in them, and that ingredients should not be used unless they have been proven to be safe.

Ecostore has taken the lead by opting to comply with the International Nomenclature of Cosmetic Ingredients labelling that virtually discloses its formula on the packet for competitors to see.

Open the door on the phosphate debate, and it is clear it is just part of a much greater issue about what we put next to our skin and flush away into the environment.

The New Zealand Ecolabelling Trust, which licences the Environmental Choice label, does not completely ban phosphorous.

It says that in New Zealand waters, the contribution of phosphate from agricultural and forested land usually far outweighs that from sewage.

"Phosphate may be a limiting nutrient in some aquatic environments, and in some other countries the use of phosphate in detergents has been discouraged to prevent unsustainable plant growth and oxygen starvation of lakes and waterways."

But on balance, the trust says their inclusion can be justified, and the alternatives can be as bad.

That tolerance has long gone in some other countries.

Much of the United States has moved to ban all but a trace of phosphorous from laundry and dishwasher detergents during the past couple of decades.

In Australia, the phase-down has started, and the ban starts in 2014.

Unilever, PZ Cussons and Colgate-Palmolive are all part of the move.

Some of Unilever's products, Persil, Surf and Drive, are still available on supermarket shelves with the P for phosphate label, but will be replaced by non-phosphate or NP versions as new stock comes in.

Persil started with removal of phosphates from its liquids range in 2008, and has just this year moved to stop using it in New Zealand-manufactured washing powders.

Green MP Catherine Delahunty says it is great that Persil has moved on the phosphate issue.

"It would be really good to see them all go phosphate-free.

"The writing is on the wall for laundry detergents.

"Most of America banned them from the mid-1990s, the European Union had regulations from 2004 and a ban from 2013, and Australia will have a ban by 2014. We are way behind."

She also says it is just one step toward addressing a much bigger problem.

"There are some more dangerous things we use every day – so many things in our household products that are deadly to aquatic life.

"We are soaking in a lot of dangerous chemicals, and the consumer is unwittingly contributing to their impact on the environment and on their own health."

## SHOPPING TIPS

\* Look for the Environmental Choice label. It's based on science, licensed through the New Zealand Ecolabelling Trust. It does not demand the absence of phosphates (up to 1.15g per kilogram is allowed) but is generally the best guide in New Zealand for what's safe for people and the environment.

\* Check the box or bottle front for the P or NP symbol. Some of the brands using the symbol are Down to Earth, Woolworths Homebrand, Surf, Dynamo, Cold Power, Fab and Drive.

\* Persil's Cleaner Planet Plan logo indicates products that are phosphate-free.

\* Check how many washes per packet – it might change your view about what's cheapest.

\* Read the list of ingredients.

\* Don't assume marketing words such as "biodegradable" mean harmless.

\* Don't assume things that are "natural" can't be toxic.

\* Listen to your skin. If products are giving you a rash, stop using them.

\* What's good for humans is usually good for the environment.

## - Manawatu Standard