

# WHAT TO DO with all that poo

Whangarei produces tonnes and tonnes of poo every year. Around 6.5 million cubic metres of it is piped to the Whangarei Waste Treatment Plant every year for treatment.

When you flush your loo, your poo races down the sewer system, joined by wastewater from showers, baths, washing machines and kitchen sinks, to the plant for processing.

Here it is strained, mixed, filtered, feasted on by live bacteria, dried and disinfected. Solid waste is taken to landfill and treated water is discharged into the Limeburners Creek Wetlands.

## Keeping your pipes clean

Things can go wrong when people flush wet wipes, cooking fat or other rubbish down their wastewater pipes.

Grease and fat can lump together with other trash as giant 'fatbergs' in the sewer system, causing raw sewage overflows into the environment and costly repair bills for ratepayers. One of the largest 'fatbergs' ever discovered was a 130 tonne, 250m long monster, found in a London sewer.



These things can block drains:

- baby wipes
- cotton buds
- band-aids
- sanitary products and nappies
- fats, cooking oil and food scraps



## LIQUIDS

### Screening

1

Screening removes paper and other debris.



2

### Separating

In large settling tanks the solids (sludge) sink to the bottom, while fats and oils float to the top.



### Magical microbes

3

Millions of microbes clean the water by eating the bugs. These bugs are our heroes, doing all the hard work for us without the need for nasty chemicals.



### Superbug soup

4

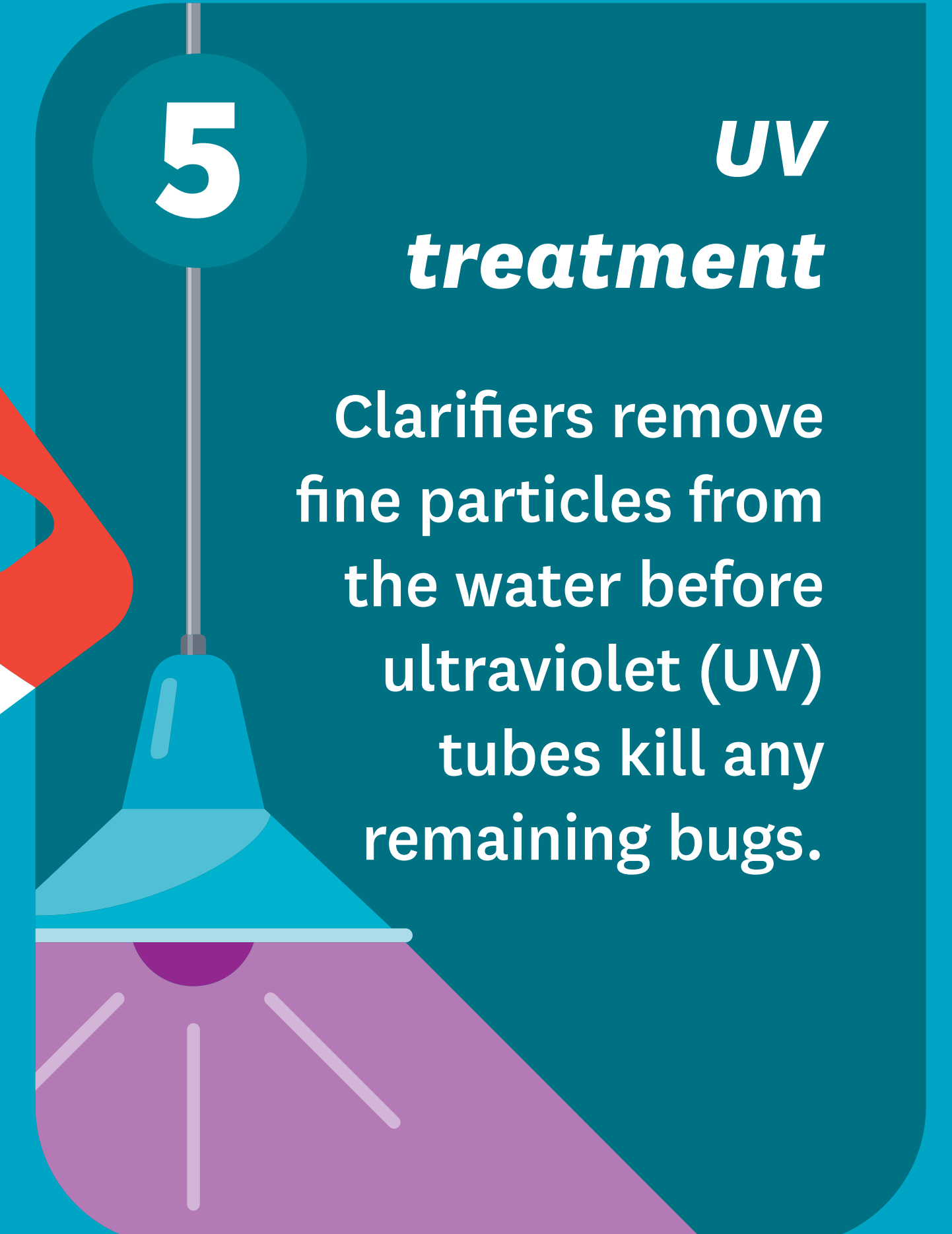
Two giant aerators add oxygen to the wastewater to create a nutrient-rich soup for superbugs that continue the cleaning process.



5

### UV treatment

Clarifiers remove fine particles from the water before ultraviolet (UV) tubes kill any remaining bugs.



### A final filter

6

Thousands of native wetland plants give the treated water a final filter.



1

## SOLIDS

### Sludge digestors

7

Solid waste is heated and dried. Two biogas generators harness the poo power created by methane gas during the sludge treatment process and turn it into electricity.



8

### Landfill

The treated sludge is taken away to landfill.

