### Christopher Carter

Submission to Healthy Rivers Committee

### What an 80 year timeline means...

• I'm going to teach my kid to read... in 80 years.

• I'm going to give up smoking.... in 80 years.

• I'm going to the moon... in 80 years.

# 80 years to clean up our rivers is in fact...

# The timeline we set when we don't want a timeline



# Let's get real – do this within 20 years The tale of the Thames in London

- In 1957, the Natural History Museum declared the Thames biologically dead. News reports from that era describe it as a vast, foul-smelling drain.
- 1974 80 species of fish returned first salmon spotted
- What about today?



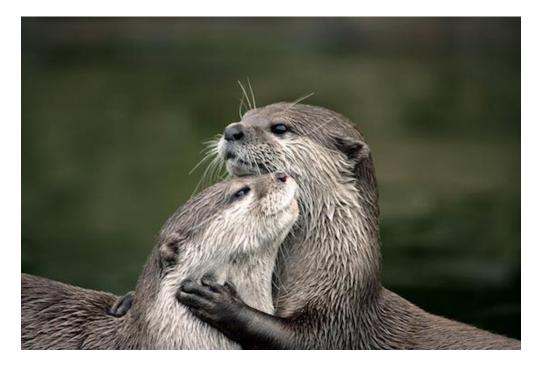
### **The Thames Today**

#### A Thames currently fit for swimming

By Simon Griffiths • Publisher • 25th July 2018 ♥@outdoor\_swimmer



#### These critters have returned



Along with 125 fish species, seals and abundant birdlife

### Anything less than 80 years is 'too dear'? Consider the cost of doing nothing...

World champ rowers sickened by e-coli outbreak at Karapiro. Dozens hospitalised, world champs cancelled.

Japanese TV expose on our filthy rivers. Tourism down by 25%

E-coli outbreak linked to factory discharge, worse than Havelock North. China stops all dairy imports at border. Honeymooning German you-tuber hospitalised after swim in '100% pure NZ' river.

# The benefits of clean waterways

An extra 100,000 tourists visiting the pristine Waikato region spending \$200 per day for just 3 days would yield \$60m per year.

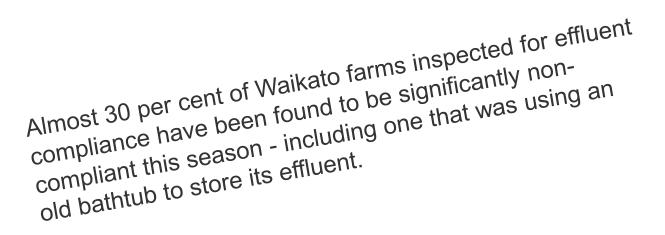
- Reduced sickness from waterborne diseases
- Restoration of traditional food sources
- Increased recreational use of waterways
- We walk the '100% Pure' talk
- Less pollution risk to our tourism and farming industries

# Nitrogen Modelling

- 'Fixes' the whole countryside
- Very wasteful of resources, expensive for all parties
- Grandparenting lets big polluters continue polluting
- The real issue needs targeted clean-up
- It penalizes good practitioners and low-N farms
- We already have pollution controls, let's enforce them

### How does Nitrogen modelling fix this?

companies are broke



The WRC farm services team has inspected 239 "high risk" farms since July 1. Of the high-risk farms inspected, 34 had upgraded their effluent operations. However, 31 per cent were found to be significantly non-compliant, including some who had been non-compliant the previous season.

Waikato farming company fined \$116k at Hamilton District Court

Farm owners lose appeal against \$45k effluent fine

Fine of \$225,000 for dirty dairying will go unpaid because H & S Chisholm Farms Limited has been convicted and fined \$57,375 for two discharges of dairy effluent from its South Waikato farm in mid-2017.

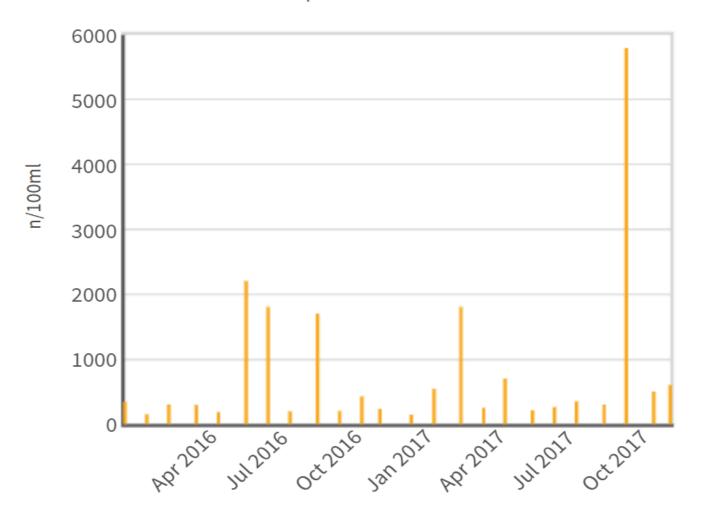
Table 1: Water quality trends in the Waikato River between 1993 and 2017 (based on methods from Waikato Regional Council's Technical Report 2013/20.)

$\odot$	Important improvement	Waikato river sampling sites									
() () () () () () () () () () () () () (	Slight improvement Uncertain Slight deterioration Important deterioration	Taupo	Ohaaki	Ohakuri	Whakamaru	Waipapa	Narrows	Horotiu	Huntly	Mercer	Tuakau
	Temperature	$\overline{\mathbf{S}}$	$\odot$	$\overline{\mathbf{S}}$	-	_	_	—	—	$\odot$	$\odot$
	Dissolved oxygen	-	$\odot$	-	-	8	$\overline{\mathbf{S}}$	$\overline{\mathbf{S}}$	-	$\otimes$	$\overline{\mathbf{S}}$
	Visual clarity	nd	$\otimes$	$\overline{\mathbf{S}}$	$\overline{\mathbf{S}}$	$\otimes$	$\odot$	$\odot$	_	nd	$\otimes$
	Turbidity	$\otimes$	8	8	-	—	$\odot$	—	—	8	$\otimes$
	Arsenic	$\otimes$	$\odot$	-	_	_	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
	Ammonia	—	—	—	—	-	-	$\odot$	$\odot$	—	-
	Total nitrogen	—	$\otimes$	$\otimes$	$\otimes$	8	$\otimes$	$\otimes$	$\otimes$	$\otimes$	$\otimes$
	Total phosphorus	$\odot$	$\odot$	-	-	-	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
	Chlorophyll a	-	_	—	nd	_	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
	E. coli	-	$\odot$	_	8	-	_	-	_	-	-

### Nitrogen Modelling won't stop Te Waihou going from pristine



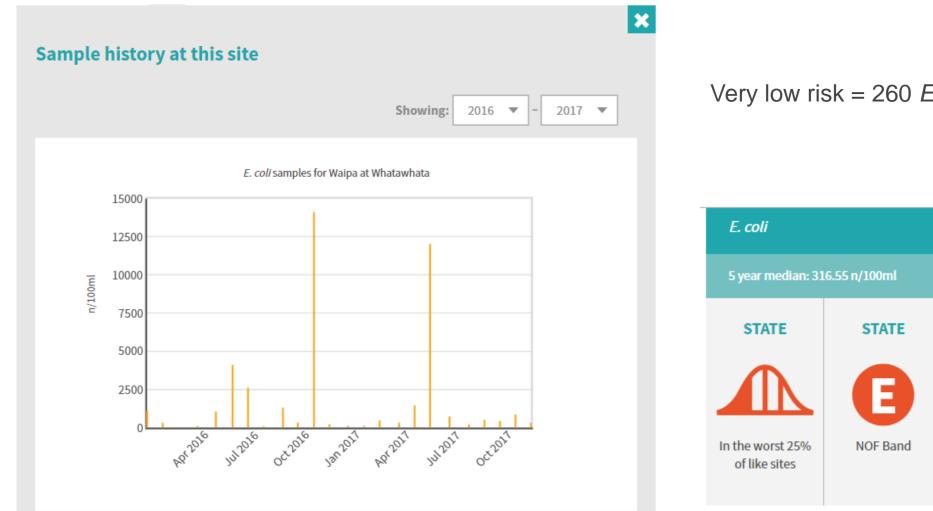
#### ...to Unclean in a few kilometres



E. coli samples for Waihou River at Okauia

#### Very low risk = 260 *E.coli*/100 mL

#### The Waipa River – ditto, no cities to blame here.



Very low risk = 260 *E.coli*/100 mL

?

TREND

Likely Improving

## More intensive 'targeted monitoring'

- There is huge gaps in our water quality data, leading to an inability or unwillingness to tackle the root problem
- We need more frequent water quality monitoring, publicly shared
- This will identify root sources of pollution
- Doesn't penalize farms who are already compliant and following good practices
- Tackles the issue at the source, not the symptoms downstream
- Paired with a contestable fund for clean-ups would be much cheaper than trying to 'fix' the whole countryside.

### The no.1 benefit of a clean river... for our kids

