




# Waitarāmoa (Hobson) Bay

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# Beyond Physical

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Summer of  
1949/50





Waitarāmoa Bay





# Public health warning

Water quality in this area is not safe for swimming and other water activities. Collection and eating of seafood should also be avoided.



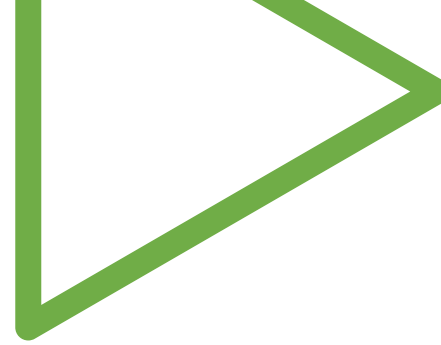
## CAUTION

Fault in the drainage networks under investigation. Please avoid contact with the water at all times. Do not allow dogs in the water.

Find out more: phone  
or visit aucklandcoun



What do all the words  
and numbers mean?

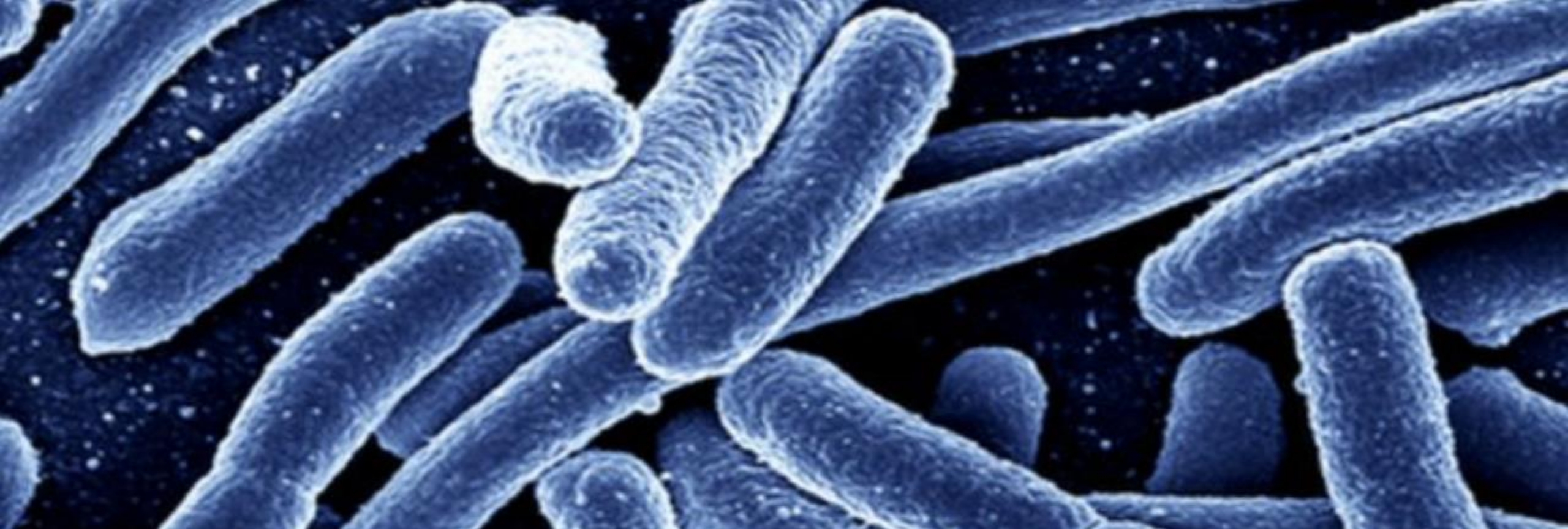




# E.Coli and Enterococci

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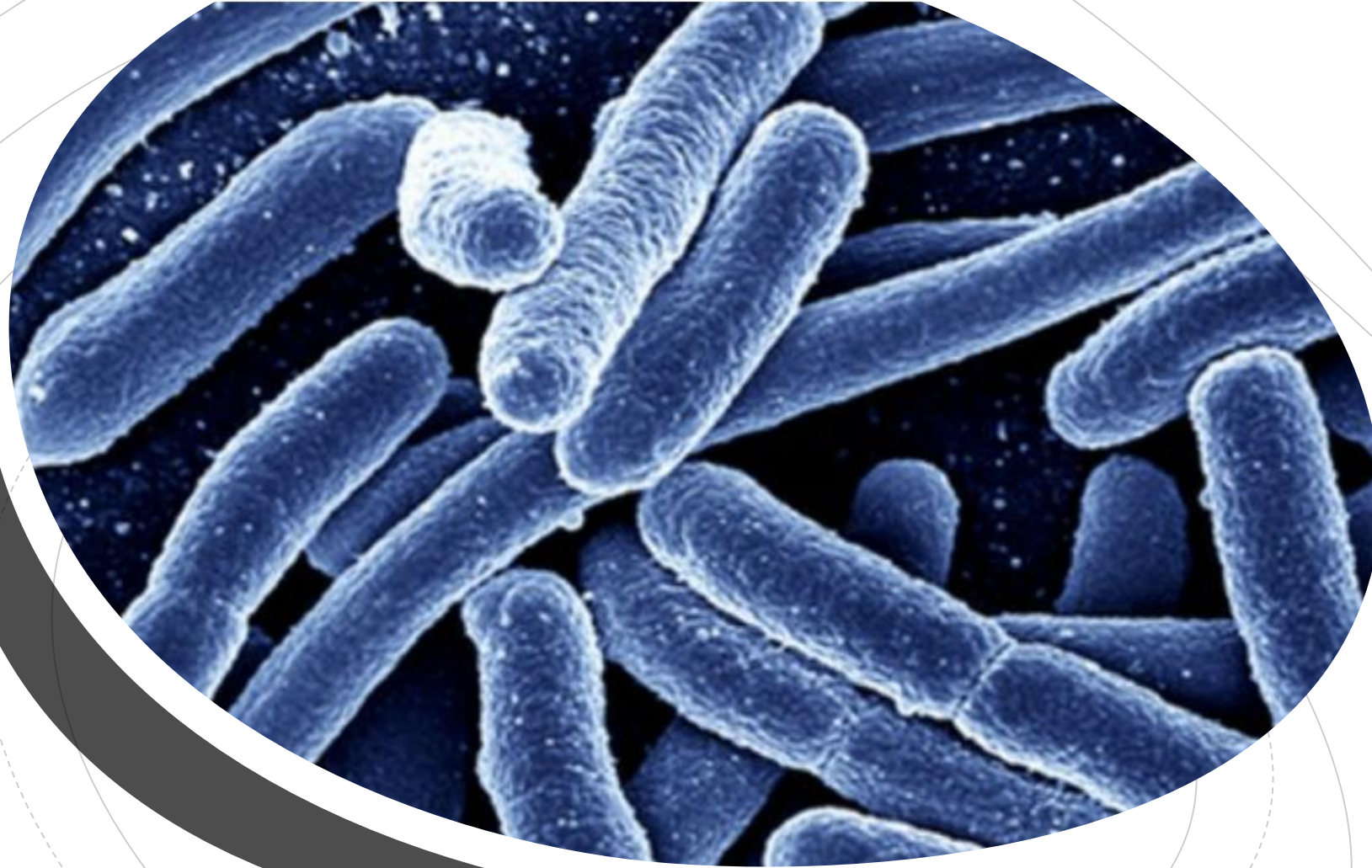
- Marker
- Indicates faeces/poo



## Risk quantification

- 130 e.coli/100ml risk of infection with single exposure 1 in 1000
- 260 e.coli/100ml risk of infection with single exposure 1 in 100
- 540 e.coli/100ml risk of infection with single exposure is 5 in 100





Median

95% centile

% of time >260

% of time >540



CATEGORY	PERCENTAGE OF EXCEEDANCES OVER 540: E. COLI PER 100 ML	MEDIAN: E. COLI PER 100 ML	95 <sup>TH</sup> PERCENTILE: E. COLI PER 100 ML	PERCENTAGE OF SAMPLES ABOVE 260: E. COLI PER 100 ML
Blue	< 5 per cent	≤ 130	≤ 540	< 20 per cent
Green	5-10 per cent	≤ 130	≤ 1000	20-30 per cent
Yellow	10-20 per cent	≤ 130	≤ 1200	20-34 per cent
Orange	20-30 per cent	>130	>1200	>34 per cent
Red	> 30 per cent	>260	>1200	>50 per cent

- Waitaramoa Bay streams
- RED
  - Exceeds >540/100ml 89%of the time!
  - Median 7900 e.coli/100ml
  - 95<sup>th</sup> percentile 200 000 e.coli/100ml
  - Percentages of samples>260 94% of the time





Once 95<sup>th</sup> centile e.coli  
>540 NOT safe to swim

- Our 95<sup>th</sup> centile is  
200 000 (streams)





What about sea water?  
Enterococci 95 centile  
>500 NOT safe

- Our 95<sup>th</sup> centile is  
16 150

(at collection points 201 and 204)





Once median e.coli >1000 NOT safe for water activities such as kayaking, paddle boarding etc

- Our median is 7900 e.coli/100ml
- This is across all sites
- Many sites much higher

Bottom line


Testing in the Waitaramoa Bay area demonstrates extremely contaminated water

Health risk is **VERY HIGH**





# What are the health risks

- Gastroenteritis
  - Ear, Nose, Sinus and Chest infections
  - Skin infections
  - Waterborne epidemics
- 

# Really?



Delay between water event and illness



Not all infections are clinical or significantly symptomatic



Surveillance difficult as a minority visit a doctor and even those that do majority are not recognized as waterborne and not reported to public health



# Other points

Wastewater and sewage contains other environmental contaminants

- Human health risks poorly characterised

Heavy metals and hydrocarbons runoff from urban areas

Sediment and shallows may have greater concentrations of contaminants – children are at risk playing here

RISKS with Fishing and shellfish gathering in contaminated water



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