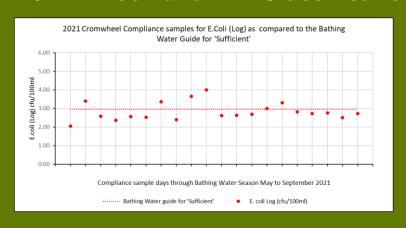
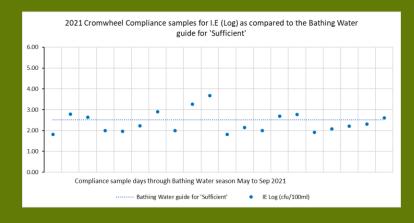
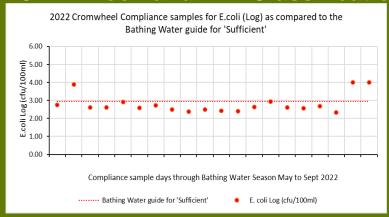
### How does Cromwheel rate? 2021 and 2022 Compliance results

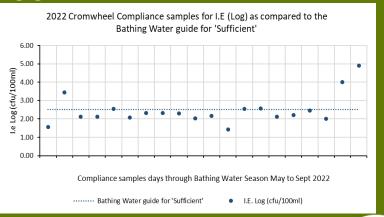
#### 2021 - E.coli and I.E. Classification = POOR





#### 2022 - E.coli and I.E. Classification = POOR

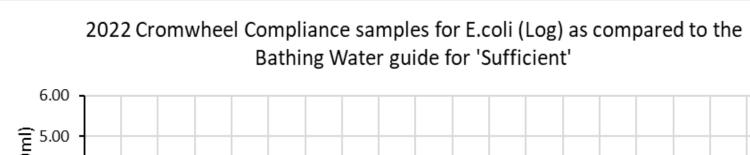


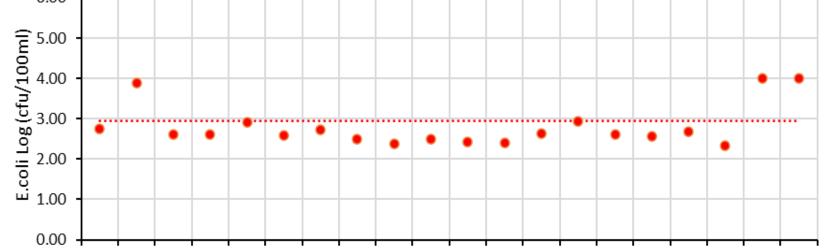




## Does Cromwheel ever achieve a 'Sufficient' status?

### Cromwheel's Bathing Water POOR classification 2022





Compliance sample days through Bathing Water Season May to Sept 2022

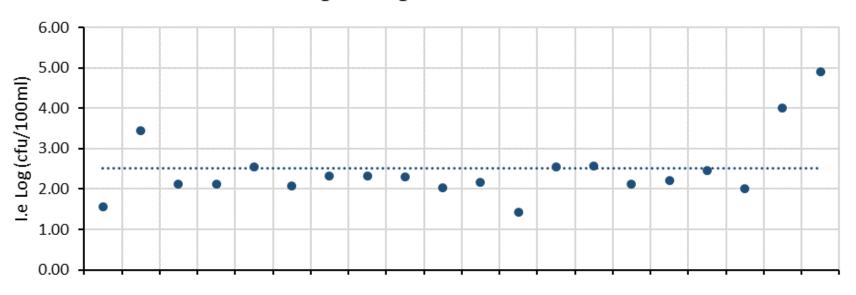
······ Bathing Water guide for 'Sufficient'

E. coli Log (cfu/100ml)

# Does Cromwheel ever achieve a 'Sufficient' status?

### Cromwheel's Bathing Water POOR classification 2022

2022 Cromwheel Compliance samples for I.E (Log) as compared to the Bathing Water guide for 'Sufficient'



Compliance samples days through Bathing Water Season May to Sept 2022

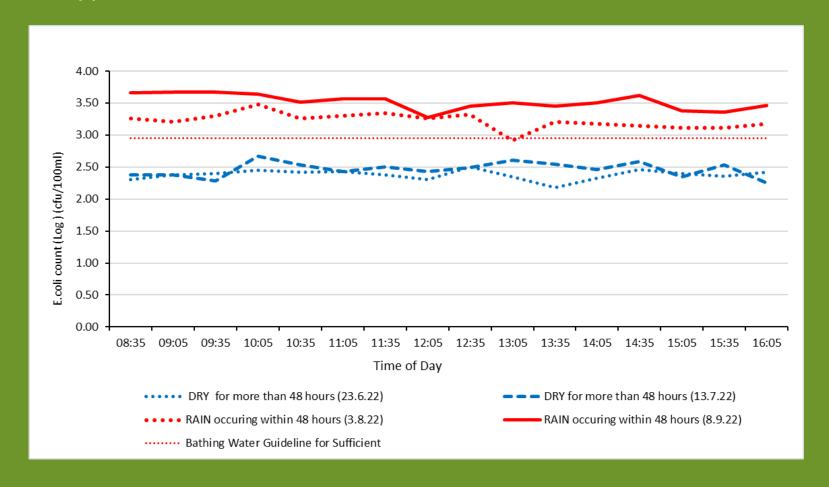
····· Bathing Water guide for 'Sufficient'

I.E. Log (cfu/100ml)

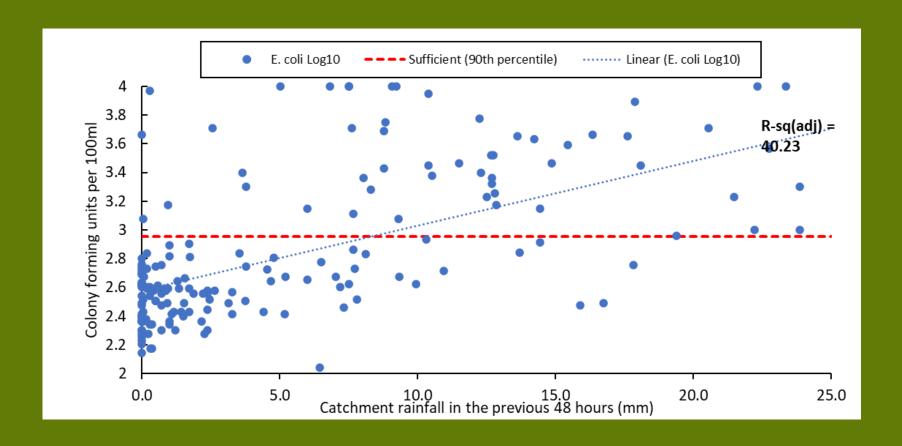


# Does Cromwheel ever achieve a 'Sufficient' status?

What happens when it rains?



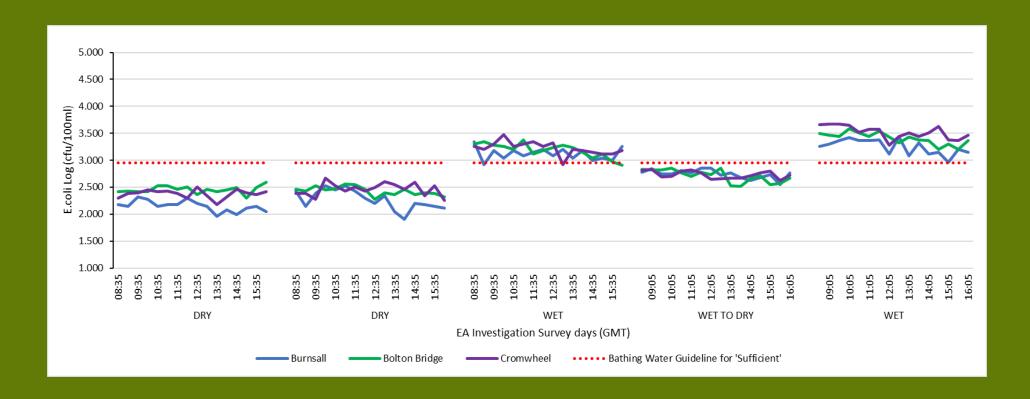
# What are the conditions that result in elevated FIO counts?



Catchment rainfall in the previous 48 hours



### Are the conditions for elevated FIOs in the mid and upper catchment different to Cromwheel?





# What are the sources of FIOs at Cromwheel?

Rainfall	Ecoli	IE	HuBac	RuBac	Cow	Sheep
Very Low	388	108	3.71	3.79	1.63	0.16
Low	872	386	3.47	2.85	2.02	0.38
Medium						
High	2492	1028	3.63	4.48	2.14	2.10
Very High	2596	852	3.70	4.87	2.90	2.40

Ecoli and IE counts - units cfu/100ml MST markers – units log<sub>10</sub> gc/100ml



### What are sources of FIOs at Cromwheel?

- Strong evidence for faecal pollution from both human and agricultural sources.
- Strong evidence that the agricultural pollution is from cows and sheep.
- Strong evidence for rainfall effect preceding 48 hours causing increased Ecoli and IE.
- Human pollution relatively unaffected by 48h preceding rainfall increased Ecoli and IE likely from agricultural sources.
- Pollution from cattle less affected by rainfall, though very high rainfall increases cattle mtDNA
- Pollution from sheep increases with all levels of rainfall.

