

### Onrus Estuary Mouth: Recreational water quality according to DWA Guideline<sup>1</sup>

Date	E. coli (counts/100ml)	Rolling 3-month geomean	TYPE OF EFFECTS
2023/11/15	2000	235,3	Some RISK
2023/11/20	800	398,4	Some RISK
<b>Geomean for full period since 14 March 2018</b>		<b>113,0</b>	<b>LOW RISK</b>

### Full-contact recreation (swimming): effects of E. coli on human health

E. coli range (counts/100mL)	Effects
<i>Target Water Quality Range</i>	
0-130	A low risk of gastrointestinal illness is indicated for contact recreational water use. This is not expected to exceed a risk of typically < 8 illnesses/1000 swimmers.
130-200	A slight risk of gastrointestinal effects among swimmers and bathers may be expected. Negligible effects are expected if these levels occur in isolated instances only.
200-400	Some risk of gastrointestinal effects exists if geometric mean or median E. coli levels are in this range, particularly if this occurs frequently. The risk is minimal if only isolated samples fall in this range. Resampling should be conducted if individual results > 400/100 mL are recorded.
>400	Risks of health effects associated with contact recreational water use increase as E. coli levels increase. The volume of water which needs to be ingested in order to cause ill effects decreases as the E. coli density increases. Gastrointestinal illness can be expected to increase approximately in accordance with the following relationship, based on US EPA epidemiological studies:  $Y = -150.5 + 423.5 (\log x)$ Where y = illness rate/100 000 persons x = number of E. coli/100 mL ( $x \geq 3$ )

Please contact the Overberg District Municipality: Health Department, on 028 313 1243 for specific questions related to the recreational water quality.

<sup>1</sup> RSA Department of Water Affairs and Forestry. 1996. South African Water Quality Guidelines (second edition), Volume 2: Recreational Use.  
[http://www.dwa.gov.za/IWQS/wq\\_guide/edited/Pol\\_saWQguideFRESHRecreationalUsevol2.pdf](http://www.dwa.gov.za/IWQS/wq_guide/edited/Pol_saWQguideFRESHRecreationalUsevol2.pdf)