

Onrus Estuary Mouth: Recreational water quality according to DWA Guideline¹

Date	E. coli (counts/100ml)	Rolling 3-month geomean	TYPE OF EFFECTS
2023/08/07	17	28,6	Low RISK
2023/09/21	70	33,9	Low RISK
Geomean for full period since 14 March 2018		104,3	LOW RISK

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 <i>E. coli</i> 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 <i>E. coli</i> levels increase. The volume of water which needs to be ingested in order to cause ill effects decreases as the <i>E. coli</i> 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.

¹ 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