

# Quality of Water in the Vaal Barrage Reservoir

Date Sampled 21 February 2018



Interpretation of the results obtained from water samples collected at the respective sample points (refer map above).

| <b>Escherichia coli (E.coli)</b><br>Predicted symptoms include:<br>Skin irritations, infections & intestinal disorders* | <b>E.coli counts per 100ml at sample points</b>                            |     |         |   |       |  |     |    |   |        |
|---|--|-----|---------|---|-------|--|-----|----|---|--------|
|   | 1  | 2   | 3       | 4   | 5     | 6  | 7   | 8  | 9   | 10     |
|   | This Week  | 158 | 1,203   | 1,990   | 7,500 | 649  | 260 | 47 | 613   | 26,130 |
| Last Week   | 4,611  | 28  | > 2,420 | > 241,960   | 114   | 118  | 74  | 38 | 14,500  | 3      |
| <b>Guideline</b>  | Low risk of gastrointestinal disorders<br><i>E.coli</i> < 130 counts/100ml |     |         | Slight risk of gastrointestinal disorders<br><i>E.coli</i> 130 - 200 counts/100ml |       | Significant risk of gastrointestinal disorders<br><i>E.coli</i> 200 - 400 counts/100ml |     |    | High risk of gastrointestinal disorders<br><i>E.coli</i> > 400 counts/100ml |        |

| <b>Blue Green Algae</b><br>Predicted symptoms include:<br>Skin irritations, infections & intestinal disorders* | <b>Blue Green algae counts at sample points</b> |       |       |   |         |        |  |        |       |         |
|--|---|-------|-------|---|---------|--------|--|--------|-------|---------|
|  | 1   | 2     | 3     | 4   | 5       | 6      | 7  | 8      | 9     | 10      |
|  | This Week                                       | 1,247 | 5,068 | 10,726  | 223,354 | 22,565 | 15,978   | 1,569  | 7,481 | 603     |
| Last Week  | 44362   | 7,481 | 603   | 10,015  | 3,499   | 1,327  | 553  | 34,149 | 3,258 | 132,613 |
| <b>Guideline</b>   | Low Risk<br>Blue Green algae < 20,000 cells/ml  |       |       | Moderate Risk<br>Blue Green algae 20,000 - 100,000 cells/ml |         |        | High Risk<br>Blue Green algae > 100,000 cells/ml |        |       |         |

| <b>Algal Pigments</b><br>Predicted nuisance conditions include:<br>Scums & smells | <b>Algal pigments expressed as Chlorophyll-a levels at sample points</b> |    |    |  |     |     |                                     |    |    |     |
|---|--|----|----|--|-----|-----|-------------------------------------|----|----|-----|
|   | 1  | 2  | 3  | 4  | 5   | 6   | 7                                   | 8  | 9  | 10  |
|   | This Week  | 5  | 37 | 11   | 205 | 33  | 17                                  | 48 | 85 | 7   |
| Last Week   | 17   | 13 | 8  | 41   | 102 | 123 | 55                                  | 88 | 11 | 286 |
| <b>Guideline</b>  | Low Risk<br>Chlorophyll-a < 15ug/l                                       |    |    | Moderate Risk<br>Chlorophyll-a 15 - 30ug/l |     |     | High Risk<br>Chlorophyll-a > 30ug/l |    |    |     |

\* If ingested. X Sample not received / no data available. Reports generated every Friday of the year.

DISCLAIMER: Although Rand Water has made every endeavour to make an accurate assessment of the parameters described above (based on published South African and international criteria), neither Rand Water, nor any of its officials, shall be responsible for any damage or health related problems that may result due to the use of the Vaal Barrage Reservoir for any purpose.