

Rand Water
Quarterly Water Quality Status of the Blesbokspruit Catchment

01 Jan 2011 - 31 Dec 2011



| Sample Points | Sample Point Description | Aluminium | Ammonia | Chemical Oxygen Demand | Chloride | Conductivity | Daphnia Toxicity | Dissolved Oxygen | E.coli | Fluoride | Iron | Magnesium | Manganese | Nitrate | pH | Phosphate | Sodium | Sulphate | Suspended Solids |
|---------------|---|-----------|---------|------------------------|----------|--------------|------------------|------------------|---------|----------|-------|-----------|-----------|---------|-----|-----------|--------|----------|------------------|
| B1 | Outflow from New Kleinfontein Dam S26.183 E28.334 | 0.03 | 0.12 | | 15 | 28 | | 9.7 | | 0.50 | 0.01 | 11 | 0.11 | 0.14 | 8.2 | 0.06 | 24 | 47 | |
| | | 0.01 | 0.26 | | 22 | 35 | | 8.7 | | 0.31 | 0.04 | 8.2 | 0.24 | 0.55 | 7.6 | <0.04 | 17 | 69 | |
| | | 0.04 | 0.45 | | 33 | 45 | | 6.6 | | 0.26 | 0.06 | 12 | 0.16 | 1.21 | 7.4 | 0.22 | 21 | 91 | |
| | | 0.02 | 0.12 | | 41 | 42 | | 9.1 | | 0.33 | 0.03 | 9.2 | 0.21 | 0.61 | 8.2 | 0.14 | 24 | 99 | |
| B2 | Outflow from Van Ryn Dam S26.165 E28.371 | <0.01 | 3.80 | 26 | 56 | 52 | 100 | 5.6 | 540 | 0.28 | 0.09 | 10 | 0.81 | 0.19 | 7.4 | 0.21 | 43 | 40 | |
| | | <0.01 | 4.90 | 25 | 58 | 55 | 100 | 3.8 | 52 | 0.30 | 0.07 | 10 | 0.10 | 1.03 | 7.5 | 0.48 | 46 | 46 | |
| | | <0.01 | 2.40 | 43 | 83 | 86 | 100 | 3.5 | 335 | 0.29 | 0.03 | 29 | 1.08 | 1.88 | 7.3 | 0.61 | 57 | 270 | |
| | | 0.04 | 3.40 | 48 | 82 | 59 | 100 | 6.2 | 1,560 | 0.32 | 0.12 | 8.2 | 0.07 | 0.39 | 7.9 | 0.56 | 44 | 79 | |
| B3 | Stream from Brakpan Lake S26.209 E28.385 | <0.01 | 0.31 | | 60 | 58 | | 5.3 | | 0.20 | 0.01 | 13 | 0.36 | 1.90 | 7.4 | 0.12 | 46 | 98 | |
| | | <0.01 | 2.41 | | 74 | 67 | | 5.6 | | 0.21 | 0.01 | 17 | 0.09 | 2.90 | 7.3 | 0.15 | 52 | 128 | |
| | | <0.01 | 43.14 | | 143 | 135 | | 5.3 | | 0.19 | 0.18 | 36 | 1.10 | 3.22 | 7.6 | 0.42 | 115 | 148 | |
| | | 0.00 | 3.10 | | 89 | 67 | | 3.5 | | 0.22 | 0.02 | 14 | 0.35 | 2.40 | 7.4 | 0.16 | 53 | 83 | |
| B4 | Causeway @ Alexander Dam S26.211 E28.415 | <0.01 | 0.12 | | 32 | 44 | | 5.1 | | 0.35 | 0.01 | 12 | 0.45 | 0.31 | 7.0 | <0.04 | 27 | 96 | |
| | | 0.10 | 0.83 | | 47 | 51 | | 8.0 | | 0.34 | 0.02 | 14 | 0.07 | 0.98 | 7.4 | 0.04 | 33 | 119 | |
| | | 0.04 | 0.39 | | 60 | 59 | | 8.9 | | 0.24 | 0.20 | 16 | 0.06 | 1.45 | 8.1 | 0.39 | 38 | 125 | |
| | | 0.00 | 0.22 | | 51 | 57 | | 8.0 | | 0.28 | <0.01 | 13 | 0.26 | 0.23 | 7.4 | 0.09 | 41 | 100 | |
| B9 | Outflow from Cowles Dam S26.209 E28.467 | 0.01 | 2.90 | 32 | 57 | 66 | 100 | 5.3 | 49,720 | 0.28 | 0.04 | 14 | 0.43 | 0.44 | 7.5 | 0.57 | 56 | 120 | |
| | | 0.03 | 0.28 | 30 | 87 | 74 | 100 | 6.2 | 17 | 0.33 | 0.03 | 13 | 0.10 | 0.41 | 7.5 | <0.04 | 71 | 119 | |
| | | 0.01 | 4.04 | 54 | 92 | 87 | 100 | 2.7 | 108,150 | 0.20 | 0.11 | 18 | 0.53 | 3.67 | 7.3 | 1.57 | 73 | 115 | |
| | | 0.02 | 0.23 | 36 | 115 | 94 | 100 | 3.2 | 125 | 0.28 | 0.03 | 18 | 0.18 | 0.46 | 7.6 | <0.05 | 82 | 135 | |
| B13 | Stream from Daveyton below Welgedacht WWTW S26.199 E28.480 | 0.02 | 4.40 | 38 | 59 | 64 | 99 | 6.3 | 414,520 | 0.30 | 0.05 | 14 | 0.31 | 0.96 | 7.5 | 0.84 | 61 | 78 | |
| | | 0.01 | 3.12 | 105 | 49 | 61 | 100 | 2.8 | 15,777 | 0.25 | 0.09 | 13 | 0.24 | 0.75 | 7.3 | 0.76 | 47 | 55 | |
| | | 0.03 | 1.38 | 107 | 86 | 78 | 100 | 2.5 | 6,946 | 0.21 | 0.08 | 15 | 0.24 | 0.45 | 7.3 | 0.58 | 79 | 93 | |
| | | 0.00 | 3.30 | 71 | 54 | 61 | 100 | 1.7 | 19,330 | 0.22 | 0.06 | 10 | 0.23 | 0.68 | 7.2 | 0.50 | 66 | 110 | |
| B5 | Blesbokspruit @ Welgedacht S26.215 E28.480 | <0.01 | 1.60 | | 56 | 63 | | 1.7 | | 0.32 | 0.02 | 14 | 0.21 | 0.47 | 7.2 | 0.29 | 53 | 125 | |
| | | 0.09 | 1.41 | | 73 | 68 | | 2.5 | | 0.32 | 0.04 | 15 | 0.17 | 0.62 | 7.3 | 0.45 | 63 | 95 | |
| | | <0.01 | 3.33 | | 87 | 81 | | 2.0 | | 0.19 | 0.06 | 17 | 0.26 | 0.29 | 7.3 | 0.71 | 76 | 80 | |
| | | 0.00 | 1.60 | | 97 | 89 | | 2.8 | | 0.29 | 0.02 | 17 | 0.25 | 0.36 | 7.5 | 0.33 | 88 | 125 | |
| B16 | Train Bridge @ Grootvlei Mine S26.256 E28.498 | <0.01 | 2.50 | | 55 | 68 | | 2.0 | | 0.32 | 0.03 | 17 | 1.40 | <0.10 | 7.3 | 0.87 | 53 | 135 | |
| | | <0.01 | 0.88 | | 71 | 71 | | 3.0 | | 0.32 | 0.07 | 18 | 0.17 | 0.66 | 7.5 | 0.53 | 59 | 116 | |
| | | <0.01 | 2.22 | | 91 | 88 | | 2.8 | | 0.22 | 0.02 | 21 | 0.59 | 0.73 | 7.5 | 0.96 | 76 | 139 | |
| | | 0.00 | 3.60 | | 105 | 97 | | 2.0 | | 0.34 | 0.02 | 20 | 0.67 | 0.33 | 7.7 | 1.60 | 84 | 155 | |
| B6 | Klein Blesbokspruit @ Selection Park S26.283 E28.444 | 0.14 | 0.12 | | 47 | 52 | | 5.1 | | 0.36 | 0.01 | 17 | 0.58 | 0.65 | 7.4 | <0.04 | 37 | 115 | |
| | | 0.22 | 0.24 | | 36 | 56 | | 7.3 | | 0.41 | 0.07 | 15 | 1.46 | 0.35 | 7.0 | <0.04 | 22 | 187 | |
| | | 0.05 | 1.21 | | 39 | 44 | | 6.0 | | 0.30 | 0.01 | 15 | 0.65 | 0.62 | 7.2 | 0.18 | 19 | 104 | |
| | | 0.02 | 0.12 | | 20 | 42 | | 5.7 | | 0.32 | 0.03 | 12 | 0.08 | 0.14 | 7.3 | <0.05 | 20 | 82 | |
| B15 | Blesbokspruit on N17 Toll Road @ Springs S26.271 E28.504 | <0.01 | 2.30 | | 54 | 68 | | 2.7 | | 0.34 | 0.03 | 17 | 1.30 | <0.10 | 7.3 | 1.10 | 51 | 125 | |
| | | <0.01 | 0.61 | | 74 | 70 | | 2.7 | | 0.34 | 0.02 | 19 | 0.28 | 0.72 | 7.5 | 0.52 | 58 | 123 | |
| | | <0.01 | 2.33 | | 88 | 84 | | 3.2 | | 0.24 | 0.03 | 21 | 0.46 | 0.76 | 7.5 | 1.46 | 66 | 123 | |
| | | 0.00 | 3.10 | | 98 | 96 | | 2.6 | | 0.32 | 0.03 | 20 | 1.10 | 0.48 | 7.6 | 2.10 | 82 | 120 | |
| B17 | Blesbokspruit @ Marievale Bird Sanctuary S26.359 E28.508 | <0.01 | 0.12 | | 60 | 75 | | 4.6 | | 0.38 | <0.01 | 22 | 1.20 | <0.10 | 7.7 | 1.10 | 60 | 150 | |
| | | <0.01 | 0.24 | | 70 | 77 | | 3.9 | | 0.36 | 0.01 | 23 | 0.15 | 0.16 | 7.7 | 0.61 | 57 | 151 | |
| | | <0.01 | 2.37 | | 97 | 94 | | 4.1 | | 0.29 | 0.01 | 26 | 0.59 | <0.10 | 7.7 | 0.34 | 69 | 180 | |
| | | 0.00 | 0.12 | | 105 | 105 | | 2.5 | | 0.46 | <0.01 | 24 | 0.32 | 0.11 | 7.9 | 1.30 | 87 | 175 | |
| B11 | Blesbokspruit on R42 bridge @ Nigel S26.391 E28.497 | 0.03 | 0.12 | | 52 | 71 | | 4.9 | | 0.41 | 0.01 | 20 | 0.52 | <0.10 | 7.6 | 0.74 | 50 | 145 | |
| | | <0.01 | 0.24 | | 70 | 77 | | 4.8 | | 0.37 | 0.01 | 22 | 0.11 | <0.10 | 7.7 | 0.55 | 56 | 159 | |
| | | 0.02 | 0.60 | | 96 | 95 | | 3.7 | | 0.30 | 0.02 | 26 | 0.20 | 0.11 | 7.7 | 0.64 | 72 | 183 | |
| | | 0.01 | 0.12 | | 110 | 110 | | 5.2 | | 0.48 | 0.02 | 27 | 0.20 | 0.45 | 8.0 | 0.90 | 86 | 170 | |
| B7 | Stormwater drain from Nigel Dam S26.415 E28.466 | 0.04 | 0.12 | | 24 | 55 | | 5.2 | | 0.40 | 0.01 | 16 | 2.40 | 0.34 | 6.7 | <0.04 | 27 | 215 | |
| | | 0.04 | 0.24 | | 33 | 58 | | 4.1 | | 0.44 | 0.02 | 13 | 0.72 | 0.19 | 7.0 | <0.04 | 30 | 171 | |
| | | 0.01 | 0.42 | | 40 | 65 | | 6.1 | | 0.34 | 0.05 | 20 | 0.80 | 0.29 | 7.0 | <0.04 | 38 | 198 | |
| | | 0.01 | 0.12 | | 43 | 77 | | 5.1 | | 0.31 | 0.04 | 21 | 1.50 | 0.13 | 7.2 | <0.05 | 52 | 235 | |
| B8 | Blesbokspruit @ Nigel S26.439 E28.456 | 0.02 | 0.12 | | 45 | 62 | | 6.3 | 20,030 | 0.39 | 0.02 | 18 | 0.24 | 0.14 | 7.6 | 0.52 | 43 | 130 | |
| | | 0.02 | 0.27 | | 66 | 71 | | 6.1 | 25,697 | 0.37 | 0.02 | 17 | 0.05 | 0.20 | 8.0 | 0.40 | 42 | 140 | |
| | | <0.01 | 0.29 | | 88 | 88 | | 6.8 | 3,794 | 0.28 | 0.02 | 25 | 0.22 | 0.24 | 8.0 | 0.27 | 61 | 163 | |
| | | 0.01 | 0.12 | | 98 | 98 | | 6.0 | 1,790 | 0.37 | 0.01 | 24 | 0.16 | 0.20 | 8.2 | 0.64 | 82 | 170 | |
| B14 | Bridge @ Jameson Park S26.479 E28.426 | 0.01 | 0.26 | | 44 | 64 | | 6.4 | | 0.37 | 0.02 | 18 | 0.40 | 0.44 | 7.8 | 0.46 | 46 | 125 | |
| | | 0.01 | 0.28 | | 65 | 70 | | 5.9 | | 0.34 | 0.02 | 20 | 0.09 | 0.68 | 7.7 | 0.37 | 54 | 134 | |
| | | <0.01 | 1.39 | | 95 | 86 | | 4.9 | | 0.28 | 0.01 | 24 | 0.35 | 0.89 | 7.7 | 0.63 | 64 | 147 | |
| | | 0.01 | 0.57 | | 93 | 96 | | 3.2 | | 0.32 | 0.03 | 23 | 0.19 | 0.83 | 7.9 | 0.65 | 77 | 150 | |

Rand Water
Quarterly Water Quality Status of the Blesbokspruit Catchment

01 Jan 2011 - 31 Dec 2011



| Sample Points | Sample Point Description | Aluminium | Ammonia | Chemical Oxygen Demand | Chloride | Conductivity | Daphnia Toxicity | Dissolved Oxygen | E.coli | Fluoride | Iron | Magnesium | Manganese | Nitrate | pH | Phosphate | Sodium | Sulphate | Suspended Solids |
|---------------|--|-----------|---------|------------------------|----------|--------------|------------------|------------------|--------|----------|------|-----------|-----------|---------|-----|-----------|--------|----------|------------------|
| B12 | Stream from Kaydale Station S26.477 E28.404 | 0.01 | 0.18 | | 26 | 42 | | 5.2 | | 0.29 | 0.01 | 12 | 0.80 | 2.20 | 7.5 | 0.34 | 29 | 40 | |
| | | 0.02 | 0.75 | | 31 | 44 | | 6.2 | | 0.27 | 0.03 | 11 | 0.10 | 3.30 | 7.4 | 0.58 | 30 | 45 | |
| | | 0.05 | 1.94 | | 44 | 47 | | 4.0 | | 0.23 | 0.05 | 12 | 0.77 | 4.75 | 7.3 | 0.64 | 30 | 37 | |
| | | 0.04 | 0.26 | | 25 | 46 | | 4.3 | | 0.30 | 0.08 | 11 | 0.24 | 3.80 | 7.3 | 1.10 | 35 | 56 | |
| B10 | Blesbokspruit Weir @ Heidelberg S26.511 E28.351 | 0.01 | 0.12 | 21 | 44 | 63 | 100 | 5.8 | 9310 | 0.42 | 0.02 | 17 | 0.13 | 0.69 | 7.6 | 0.42 | 42 | 120 | 24 |
| | | 0.01 | 0.35 | 20 | 60 | 68 | 100 | 6.2 | 35790 | 0.34 | 0.01 | 19 | 0.08 | 1.05 | 7.8 | 0.38 | 52 | 113 | 13 |
| | | 0.03 | 0.48 | 24 | 76 | 81 | 100 | 5.8 | 336 | 0.26 | 0.01 | 22 | 0.17 | 1.89 | 7.7 | 0.41 | 60 | 149 | 14 |
| | | 0.03 | 0.14 | 28 | 76 | 89 | 100 | 6.2 | 1490 | 0.32 | 0.01 | 22 | 0.14 | 1.60 | 8.0 | 0.53 | 79 | 120 | 32 |
| S1 | Suikerbosrant River @ Heidelberg S26.630 E28.297 | 0.63 | 0.12 | | <10 | 23 | | 5.5 | 490 | 0.23 | 0.78 | 9.4 | 0.04 | 0.24 | 7.2 | 0.06 | 10 | 12 | |
| | | 0.08 | 0.24 | | 16 | 30 | | 5.6 | 249 | 0.24 | 0.15 | 11 | 0.04 | 0.60 | 7.4 | 0.11 | 16 | 14 | |
| | | 0.02 | 0.29 | | 22 | 36 | | 9.1 | 37 | 0.17 | 0.12 | 15 | 0.05 | 0.87 | 8.8 | 0.05 | 18 | 21 | |
| | | 0.18 | 0.15 | | 40 | 54 | | 4.4 | 180 | 0.23 | 0.04 | 24 | 0.20 | <0.10 | 7.7 | <0.05 | 42 | 16 | |
| S2 | Suikerbosrant River Weir @ Three Rivers S26.671 E28.030 | 0.09 | 0.12 | 25 | 31 | 47 | 100 | 6.4 | 1900 | 0.30 | 0.13 | 14 | 0.04 | 0.63 | 7.5 | 0.18 | 28 | 78 | 41 |
| | | 0.01 | 0.24 | 20 | 51 | 60 | 100 | 6.0 | 989 | 0.31 | 0.01 | 18 | 0.04 | 0.99 | 8.0 | 0.22 | 41 | 93 | 25 |
| | | 0.01 | 0.24 | 22 | 69 | 74 | 100 | 6.9 | 50 | 0.24 | 0.01 | 21 | 0.03 | 1.85 | 8.1 | 0.16 | 48 | 123 | 18 |
| | | 0.04 | 0.12 | 26 | 75 | 82 | 100 | 6.4 | 310 | 0.31 | 0.01 | 22 | 0.02 | 0.90 | 8.1 | 0.28 | 72 | 115 | 16 |

Key

| | | | | |
|-----|-----------------------------|------|------|------------------------|
| B12 | Stream from Kaydale Station | 0.01 | 0.18 | - 1 Jan to 31 Mar 2011 |
| | | 0.02 | 0.75 | - 1 Apr to 30 Jun 2011 |
| | | 0.05 | 1.94 | - 1 Jul to 30 Sep 2011 |
| | | 0.04 | 0.26 | - 1 Oct to 31 Dec 2011 |

Water Quality Guidelines

| | |
|--|----------------|
| | - Ideal |
| | - Acceptable |
| | - Tolerable |
| | - Unacceptable |