

## Water Demand for Basic Assessment 1

### Abstractions

Water will be required during the construction of the road and will be abstracted from local sources on the affected properties. The abstractions will be issued per property which aligns with SANRAL's planning programme.

The estimated average volume of water required during construction is a maximum of 250 m<sup>3</sup> per day. Water will be obtained from a municipal supply and/or will be abstracted from rivers near to site. Potential abstraction can be conducted from a potential 35 properties that is described in Appendix 2. These properties form the project footprint and water will be abstracted from water sources located on these properties. Exact abstraction points will be decided by contractors, once appointed. Contractors will be obliged to furnish these localities to the Department in fulfilment of the requirements of the General Authorisation (this is as agreed during a meeting between SANRAL and DWS on 7 March 2017).

According to GN 538, a property owner may abstract 2,000 m<sup>3</sup> per property, per annum. Table 5 provides the daily, monthly and annual water requirements and the number of properties involved. For 35 properties, the annual allocation will be 18 000 m<sup>3</sup>, which is sufficient to cover the estimated annual consumption of 14 352 m<sup>3</sup>.

**Table 3 Water use requirements and number of properties involved**

<b>Average daily water use (m<sup>3</sup>)</b>	<b>Average monthly water use (m<sup>3</sup>) (23 working days)</b>	<b>Average annual water use (m<sup>3</sup>)</b>	<b>Number of properties</b>	<b>Number of properties from which water will be abstracted</b>
250	5750	69000	111	35

The abstraction of water will be done by pump. Pump specifications are currently unavailable as contractors have yet to be appointed. Contractors will be obliged to furnish pump specifications to the Department in fulfilment of the requirements of the General Authorisation.

**Table 3 Properties indicating potential abstraction points for EB Cloete I/C to Solomon Mahlangu and Westville viaduct to Paradise Valley for Basic Assessment 1.**

Property Number	Service Provider	Location	Property No	Owner	Property type (farm, erf, scheme no, etc)	Title Deed No	Surveyor General Cadastral Code	Portion of Property	Property area size (sqm)	Name of water source	Co-ordinates of water source	Type of water source (river/stream or wetland)	Length of watercourse affected by the alteration
1	SNA	M7	513	ETHEKWINI MUNICIPALITY	Erf	T17318/1971	N0FT00180000051300000	0	996971	M7-1-R01	29.87685134, 30.94366901	River	610
2	SNA	M7	513	PROVINCIAL GOVERNMENT OF THE PROVINCE OF KWAZULU-NATAL	Erf	T16788/1976	N0FT00180000051300335	335	80554,5	M7-1-R01	29.87685134, 30.94366901	River	210
3	SNA	M7	513	PROVINCIAL GOVERNMENT OF THE PROVINCE OF KWAZULU-NATAL	Erf	T16788/1976	N0FT00180000051300335	335	80554,5	M7-1-R01b	29.87725101, 30.93899569	River	140
4	SNA	N2	517	SANRAL	No Data	No Data	N0FT00180000051700011	11	34117,8	N2-1-R01	29.88312374, 30.94466843	River	70
5	SNA	N2	2050	SANRAL	Erf	T52075/2008	N0FT00450000205000007	7	1386,43	N2-1-R05	29.83378855, 30.96053136	River	0
6	SNA	N2	516	SANRAL	No Data	No Data	N0FT00180000051600027	27	13268,7	N2-1-R01	29.88312374, 30.94466843	River	120
7	SNA	N2	517	SANRAL	Erf	T52857/2006	N0FT00180000051700039	39	320,74	N2-1-R01	29.88312374, 30.94466843	River	0
8	SNA	N2	516	SANRAL	Erf	T54926/2006	N0FT00180000051600010	10	3616,84	N2-1-R01	29.88312374, 30.94466843	River	31,83
9	SNA	N2	516	SANRAL	Erf	T2299/2007	N0FT00180000051600009	9	1074,45	N2-1-R01	29.88312374, 30.94466843	River	0
10	SNA	N2	516	SANRAL	Erf	T38949/2008	N0FT00180000051600008	8	1075,18	N2-1-R01	29.88312374, 30.94466843	River	39,04
11	SNA	N2	516	SANRAL	Erf	T52263/2008	N0FT00180000051600007	7	1075,11	N2-1-R01	29.88312374, 30.94466843	River	21,55
12	SNA	N2	516	SANRAL	Erf	T54889/2006	N0FT00180000051600030	30	2515,42	N2-1-R01	29.88312374, 30.94466843	River	13,43
13	SNA	N2	516	SANRAL	No Data	No Data	N0FT00180000051600018	18	9259,83	N2-1-R01	29.88312374, 30.94466843	River	28,9
14	SNA	N2	528	SANRAL	Erf	T4492/2006	N0FT00180000052800052	52	32269,2	N2-1-R01a	29.88492216, 30.945756	River	repeat

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15	SNA	N2	76	RSA	Erf	T11147/1977	N0FT0045000007600005	5	12658,5	N2-1-R02	29.87938256, 30.94694673	River	52,51
16	SNA	N2	513	ETHEKWINI MUNICIPALITY	Erf	T17318/1971	N0FT00180000051300000	0	232990	N2-1-R02	29.87938256, 30.94694673	River	37,64
17	SNA	N2	76	SANRAL	Erf	T1492/2009	N0FT0045000007600924	924	6837,93	N2-1-R02	29.87938256, 30.94694673	River	0
18	SNA	N2	163	SANRAL	Erf	T2723/2008	N0FT00450000016300006	6	699,678	N2-1-R03	29.85653264, 30.95147921	River	23,8
19	SNA	N2	1409	SANRAL	No data	No data	N0FT00450000140900000	0	13616,4	N2-1-R03	29.85653264, 30.95147921	River	0
20	SNA	N2	163	SANRAL	Erf	T2723/2008	N0FT00450000016300008	8	860,096	N2-1-R03	29.85653264, 30.95147921	River	15,33
21	SNA	N2	163	SANRAL	Erf	T34121/2002	N0FT00450000016300027	27	577,377	N2-1-R03	29.85653264, 30.95147921	River	4,19
22	SNA	N2	151	SANRAL	Erf	T30264/2007	N0FT00450000015100002	2	5352,89	N2-1-R03a	29.86273972, 30.95146641	River	47,07
23	SNA	N2	153	SANRAL	Erf	T6224/2007	N0FT00450000015300014	14	1616,28	N2-1-R03a	29.86273972, 30.95146641	River	9,82
24	SNA	N2	2050	SANRAL	Erf	T2723/2008	N0FT00450000205000008	8	3314,32	N2-1-R05	29.83378855, 30.96053136	River	19,9
25	SNA	N3	431	ETHEKWINI MUNICIPALITY	Erf	T7896/1972	N0FT00200000043100000	0	43005,6	N3-1-R07	29.84597194, 30.93897008	River	558,01
26	SNA	N3	3061	SANRAL	Erf	T4895/2010	N0FT02600000306100001	1	12177	N3-2-R01a	29.83286668, 30.8836841	River	36,26

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27	SNA	N3	431	SANRAL	Erf	T23841/2007	N0FT00200000043100001	1	3682,97	N3-1-R07	29.84597194, 30.93897008	River	52,78
28	SNA	N3	2369	SANRAL	Erf	T41799/2004	N0FT03800000236900023	23	188680	N3-1-R07	29.84597194, 30.93897008	River	11,08
29	SNA	N3	2369	SANRAL	Erf	T50627/2002	N0FT03800000236900020	20	254915	N3-1-R07	29.84597194, 30.93897008	River	241,6
30	SNA	N3	2369	SANRAL	No data	T41799/2004	N0FT03800000236900023	23	188680	N3-1-R07a	29.84679374, 30.93779215	River	161,07
31	SNA	N3	2369	SANRAL	Erf	T50627/2002	N0FT03800000236900020	20	254915	N3-1-R07a	29.84679374, 30.93779215	River	215,4
32	SNA	N3	1612	SANRAL	No data	No data	N0FT03800000161200010	10	1137,38	N3-1-R08	29.84382857, 30.91970065	River	36,93
33	SNA	N3	1609	SANRAL	Erf	T40855/2007	N0FT03800000160900000	0	2387,01	N3-1-R08	29.84382857, 30.91970065	River	20,95
34	SNA	N3	1611	SANRAL	No data	T15719/2007	N0FT03800000161100001	1	2354,14	N3-1-R08	29.84382857, 30.91970065	River	26,48
35	SNA	N3	3064	SANRAL	No data	T68360/2004	N0FT02600000306400002	2	23071	N3-2-R01	29.83435499, 30.88847265	River	108,1