



SUPPLEMENTARY WATER USE INFORMATION

Section 21(c) and (i) Water Uses

Section 21(c) ~ impeding or diverting the flow of water in a watercourse

Section 21(i) ~ altering the bed, banks, course or characteristics of a watercourse

Please read:

- (1) The requirements of this form should be discussed with the relevant Regional Office and Primary Responsible Official for these water uses during a pre-application consultation meeting and documented agreement reached in terms of:
 - (a) Assistance and information to be supplied by the Department (e.g. procedures (refer items 1.2.3 and 1.2.4), management objectives etc.) - this is of particular reference to emerging water users that are not in a position to provide the information as required in this form; and
 - (b) The scale and level of detail required.
- (2) Should any of the supporting documentation to the licence application (e.g. Technical Report, Environmental Impact Assessment Report, Environmental Management Plan or Programme) already contain the requested information below, the applicant is not required to duplicate the information. In such instances, a comprehensive list of these documents must be compiled and this form must be completed by referring to the relevant sections in the supporting documentation.
- (3) All maps, Google images, drawings and plans must be at an appropriate detailed scale and have sufficient annotations (North arrow, line scale, legend, co-ordinates, etc.) and must be recent (at least 6 months) representations.
- (4) All supporting documentation and reports must be final documents signed off by both the applicant and the compiler of the report.
- (5) Information requirements in respect of Section 27 of the National Water Act, 1998 (Act No. 36 of 1998)[NWA] that have to be considered in the issuing of a licence, are appropriately incorporated and indicated in this form (e.g. item 2.2.3 <Provide information to support efficient and beneficial use of water in the public interest [refer Section 27(1)(c)]>).
- (6) This form may be updated from time to time as required to comply with best practice and legal requirements. When completing this form, clearly date it since it will be evaluated against the information requirements related to the edition of the form at that time.

1. Watercourse Attributes

1.1 Locality	<p><i>1.1.1. <Provide a description of the location of the watercourse at which the water use/s is to take place></i></p> <p>Please refer to the draft Basic Assessment Report 2 (DBAR2): Figure 1; Section 1 Location and scope of proposed capacity upgrades; and Section 3 Description of the proposed activity.</p> <p>Please refer to cover letter figure 1, 2 and 3.</p>
	<p><i>1.1.2. <Provide a locality map/s indicating the relevant catchment¹, surrounding land use, towns, infrastructure etc.></i></p> <p>Please refer to the cover letter (figure 1-3) and Appendix A of the Wetland and Riparian Impact Assessment Specialist Report for N3 capacity upgrades from Paradise Valley (N3 Section 1 KM 17.5) to Key Ridge (N3 Section 2 KM 2.8) including provision of access for construction below the Umhlathuzana Viaduct, (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (in Appendix D of the DBAR 2).</p> <p>Together with Appendix C of the DBAR 2.</p>
	<p><i>1.1.3. <Provide the catchment reference number></i></p> <p>U60C and U60F</p>
1.2 Description	<p><i>1.2.1. <Provide the name and/or description of the affected watercourse></i></p> <p>8 culvert crossings/ culvert pipes and 2 Gabion and Reno Mattres' constructed 500m</p>

¹ The order of the catchment is to be verified with the relevant Regional Office and Primary Responsible Official

1.	Watercourse Attributes
	<p>from wetlands are affected along this section of the N3. Please refer to Section 3 of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (in Appendix D of the DBAR 2).</p>
	<p>1.2.2. <Provide a map with accompanying photographs (dated) indicating the segment and affected reach/es of the watercourse in which the water use/s is to take place and which indicates/delineates the regulated area² including:</p> <p>1.2.2.1. <i>The extent of the riparian habitat; and</i></p> <p>Please refer to Section 3 of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (in Appendix D of the DBAR 2).</p> <p>1.2.2.2. <i>The 1:100 year flood line>></i></p> <p>Estimation of floodlines was not given as the road improvements do not directly affect the wetlands.</p>
	<p>1.2.3. <Describe within context of the immediate catchment and segment, the historic as well as current state (Present Ecological State or PES) of the affected reach/es of the watercourse with regards to the following characteristics (attributes)³:</p> <p>Please refer to Section 3 of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of the DBAR 2)</p> <p>1.2.3.1. <i>Flow and sediment regimes (quantity, pattern, timing, water level and assurance of in stream flow);</i></p> <p>Please refer to Appendix 2 of the GA</p> <p>Please refer to Section 3 of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of the DBAR 2)</p> <p>1.2.3.2. <i>Water quality (including the physical, chemical and biological characteristics of the water) in relation to the flow regime</i></p> <p>Please refer to the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of the DBAR 2)</p> <p>1.2.3.3. <i>Riparian and In stream Habitat</i></p> <p>Please refer to Section 3 of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of the DBAR 2)</p> <p>1.2.3.3.1. <i>Morphology (physical structure)</i></p> <p>Please refer to Section 3 of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of the DBAR 2)</p> <p>1.2.3.3.2. <i>Vegetation</i></p> <p>Please refer to Assessment of Vegetation Ecology Updated Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018). (Appendix D4 of the DBAR 2)</p> <p>1.2.3.4. <i>Biota></i></p> <p>Please refer to Section 2 of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of the DBAR 2)</p>
	<p>1.2.4. <Describe the ecological importance and sensitivity (EIS)⁴ as well as the Socio-</p>

² The applicant will require a water use authorisation from the Department for any activity within the *regulated area* which is the outer edge of the riparian habitat or 1:100 year flood line, whichever is the greatest distance from the watercourse. The outer edge of the watercourse must be delineated using the Departmental guideline, *A Practical Field Procedure for Identification and Delineation of Wetlands and Riparian Areas* or *Field method for the delineation of Riparian Zones for South African Rivers*

³ Refer to the WRC Reports on EcoClassification, specifically Report no TT 329/08 on determining EcoStatus

1. Watercourse Attributes	
	<p><i>cultural Importance (SI)⁵ of the affected reach/es of the watercourse including the functions⁶></i></p> <p>Please refer to Section 2 and 3 of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of the DBAR 2)</p>
	<p><i>1.2.5. <Discuss existing land and water use impacts (and threats) on the characteristics of the watercourse></i></p> <p>Please refer to Section 2 of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of the DBAR 2)</p> <p>Please also refer to Section 5.1 of the DBAR 2</p>
	<p><i>1.2.6. <List and map sensitive environments in proximity of the project locality - sensitive environments include wetlands, nature reserves, protected areas, etc.></i></p> <p>Please refer to Section 3 of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of the DBAR2).</p> <p>Please refer to the EMPr in Appendix F of the DBAR 2 (Sensitive Areas Rehabilitation Plan and Riparian/Wetlands Rehabilitation Plan).</p> <p>Please also refer to Section 5 and Appendix C of the Assessment of Vegetation Ecology, Updated Specialist Reports (Appendix D4 of the DBAR2) and Appendix C of DBAR2</p>

2. Water Use Information	
	<p><i>2.1.1. <Describe the activities associated with the water use/s></i></p> <p>Please refer to Section 3 of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of the DBAR 2).</p>
	<p><i>2.1.2. <Describe the project phases for each activity (i.e. planning, construction, operation and maintenance, decommissioning) including, but not limited to, the programme for and duration of the various phases</i></p> <p>Please refer to Basic Assessment Report (DBAR2) 2: Section 3 Description of the proposed activity.</p>
2.1 Description and Methodology	<p><i>2.1.3. <Provide a site lay-out plan/s (master plan) indicating the various activities and existing and proposed infrastructure in relation to the 1:100 flood line and edge of the watercourse, etc. – a letter or certificate by a qualified surveyor must also be submitted that verifies the correctness of the site lay-out plans, in particular for wetlands></i></p> <p>Please refer to Civil Designs Appendix 6 for information purposes only of GA</p>
	<p><i>2.1.4. <Provide work method statements for the various water use activities></i></p> <p>SANRAL's generic method statements apply. Please refer to Construction Method Statement Appendix 5 of the GA Application.</p>
	<p><i>2.1.5. <Provide engineer design drawing(s) for construction activities within the watercourse></i></p> <p>Please refer to Civil Designs Appendix 6 for information purposes only of GA</p> <p>Please refer to Appendix A of DBAR2.</p>

⁴ The EIS of a watercourse is an expression of its importance to the maintenance of ecological diversity and functioning on local and wider scales. Ecological sensitivity refers to the system's ability to resist disturbance and its capability to recover from disturbance once it has occurred. Both biotic and abiotic components of the system are taken into account.

⁵ SI reflects the dependency of people on a healthy functioning watercourse and also to its cultural and tourism potential.

⁶ Refer to the RDM procedure for determining Ecological Importance and Sensitivity

	<p>2.1.6. <Provide a description and a map/s indicating any Storm Water Management Practices (SWMPs) specifically addressing 'end of pipe' practices> Please refer to Appendix F6 of BAR-Environmental Management Programme. The design engineers will provide final stormwater management plans with the Contract Documents.</p> <p>2.1.7. <Provide information on all existing lawful water uses [refer Section 27(1)(a)]> The SANRAL has no existing lawful uses applicable to this road upgrade project other than what applies to SANRAL properties via General Authorisations .</p> <p>2.1.8. <Provide information on investments already made and to be made by the water user in respect of the proposed water use/s [refer Section 27(1)(h)]> The highway is already constructed, however it requires upgrading.</p> <p>2.1.9. <Indicate and motivate the probable duration of any undertaking for which the water use/s should be authorised [refer Section 27(1)(k)]> The project will be done over 2 contracts, each taking 3-4 years to complete (Please refer to DBAR2).</p>
<p>2.2 Motivation</p>	<p>2.2.1. <Provide information on the need/intention/objective of the water use/s> SANRAL is responsible for improving, managing and maintaining the network of national roads which act as the “economic arteries” of South Africa. The N2 and N3 carry large volumes of traffic, with a high percentage of heavy vehicles carrying freight to and from the Port of Durban, forming the backbone of South Africa’s freight network. Sections of these national roads are operating at full or near full capacity. Traffic studies commissioned by SANRAL have projected traffic growth figures, which indicate the need to provide additional lanes to alleviate current traffic congestion and to accommodate future growth and improve road safety and efficiency. SANRAL (Eastern Region), therefore, proposes to provide additional lanes along a section of the N2 near the Port of Durban and a section of the N3 from the N2/N3 (E.B Cloete) Interchange (I/C) on to Pietermaritzburg. The proposed capacity improvements, which are divided into sections and covered ultimately by several engineering work packages, will be implemented at different stages according to timing priorities and factors related to funding availability (albeit the reality is that there will be overlapping construction periods between the work packages). The proposed capacity improvements will improve safety, increase mobility and accommodate traffic growth to 2047.</p> <p>Importantly, the upgrades are planned in line with South Africa’s Strategic Infrastructure Projects (SIPs) as described in the National Development Plan, 2011. Specifically, the proposed capacity improvements form the backbone of the SIP2 project, which focuses on strengthening the Durban-Free State-Gauteng logistics and industrial corridor. In line with SIP2 goals, the capacity improvements will improve access to Durban’s export and import facilities. National roads are essential infrastructure supporting the economy of the country and, therefore, the project will benefit all citizens of South Africa either directly or indirectly. As such, this project has been taken into account by, and is compatible with, national, provincial and municipal development, and planning frameworks.</p> <p>2.2.2. <Provide information on contributions to rectify the results of past racial and gender discrimination⁷ [refer Section 27(1)(b)⁸]></p>

⁷ Refer to the DWAF *Broad-Based Black Economic Empowerment (BBBEE) Guidelines For Water Allocation, Final Draft, June 2007* and the Department of Trade and Industry’s requirements relating to compliance with the BBBEE Act, 2003 (Act No. 53 of 2003)

⁸ The applicant must provide information on how he/she implements the seven elements of BBBEE (i.e. Ownership, Management, Employment equity, Skills development, Procurement, Enterprise development, Socio-economic development) and how this complies with the relevant Sector Charter and score card (e.g. Construction, Agriculture, Mining, Tourism etc). A BBBEE certificate or external verification must accompany the application (refer list of Verification Agents on the Department of Trade and Industry’s website)

SANRAL places a high priority on the employment of local labour, which is reflected in their standard contract document which refers to labour intensive methods and the involvement of the local community. During operation, the upgraded highway will benefit all road users (all races and genders) but should particularly have a positive impact on local communities because the project provides an essential and upgraded service to local industrial and commercial developments (existing and future) which in turn employ people living within the Outer West planning region of the eThekweni Metropolitan Municipality (eThekweni) and Msunduzi LM which is also part of the uMgungundlovu DM.

The estimated overall cost to upgrade the N3 including interchanges, is R235 million per km (2018 rand, Vat exclusive) i.e. an estimated cost of R17,64 billion over 75km. The interchange upgrades contribute a substantial portion of the N3 upgrading, including the N2/N3 EB Cloete Interchange. The latest Preferential Procurement Policy Framework Act (Act 5 of 2000) (PPPFA) regulations makes it mandatory that thirty percent of the contract value is subcontracting to specific target groups which includes Emerging Micro Enterprises and Qualifying Small Enterprises.

2.2.3. *<Provide information to support efficient and beneficial use of water in the public interest [refer Section 27(1)(c)]>*

The upgrading of general road conditions and related stormwater management will enhance the overall capacity, efficiency, mobility and safety of the highway for all road users.

2.2.4. *<Provide information on relevant catchment management strategies⁹ and local government planning frameworks that support the proposed water use [refer Section 27(1)(e)]>*

The upgrades are planned in line with South Africa's Strategic Infrastructure Projects (SIPs) as described in the National Development Plan, 2011. Specifically, the proposed capacity improvements form the backbone of SIP2, which focuses on strengthening the Durban-Free State-Gauteng logistics and industrial corridor. In line with SIP2 goals, the capacity improvements will improve access to Durban's export and import facilities. National roads are essential infrastructure supporting the economy of the country and, therefore, of benefit to all citizens of South Africa either directly or indirectly. As such, this project has been taken into account by, and is compatible with, national, provincial and municipal development and planning frameworks.

2.2.5. *<Provide information on the strategic importance of the water use to be authorised [refer Section 27(1)(i)]>*

See above.

⁹ Consult the relevant Regional Office and Primary Responsible Official

3. Impact Assessment and Management	
3.1 Impact Prediction and Assessment	<p>3.1.1. <Provide a prediction and assessment of the likely environmental and socio-economic impacts or effects¹⁰ associated with the water use/s for the different project phases:</p> <p style="padding-left: 40px;">3.1.1.1. On the watercourse and its characteristics as set out in 1.2.3 above [refer Section 27(1)(f)] Please refer to Appendix D1, D2, D3 and D4 of the DBAR 2.</p> <p style="padding-left: 40px;">3.1.1.2. On other water users [refer Section 27(1)(f)] Please refer to Appendix D1, D2, D3 and D4 of the DBAR 2.</p> <p style="padding-left: 40px;">3.1.1.3. On the broader public and property Please refer to Appendix D1, D2, D3 and D4 of the DBAR 2.</p> <p style="padding-left: 40px;">3.1.1.4. If the water use/s is not authorised [refer Section 27(1)(d)]> Please refer to Appendix D1, D2, D3 and D4 of the DBAR 2.</p> <p>3.1.2. <Provide a description of the methodologies employed to undertake impact prediction and assessment as well as a motivation for these> Risk Matrix in terms of GN 509 OF 2016 available see table 4 Water Uses of cover letter. Also in Appendix D3 of DBAR 2.</p> <p>Together with Appendix D of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of DBAR 2).</p>
3.2 Risk Assessment	<p>3.2.1. <Provide an assessment of the risks associated with the water use/s and related activities> Risk Matrix in terms of GN 509 OF 2016 available see table 4 Water Uses of cover letter.</p> <p>Together with Appendix D of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of DBAR 2).</p>
3.3 Alternatives	<p>3.3.1. <Describe the alternatives considered to prevent negative impacts on the watercourse with regard to locality, procedures, materials, etc.> Please refer to Section 4 of the DBAR 2.</p> <p>Please also refer to Appendix D3 and EMPr Appendix F3, F4 and F4.</p>
3.4 Mitigation and Management Measures	<p>3.4.1. <Provide mitigation measures¹¹ to prevent, reduce, remediate or compensate the pre-determined impacts; also provide emergency responses> Please refer to Section 8 of the DBAR 2.</p> <p>Together with Section 7 of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of DBAR 2).</p> <p>3.4.2. <Provide a site map/s that marks the limits of disturbance to the watercourse and in particular indicates erosion and sediment controls> Please refer to Topographic maps and watercourses (Appendix C of DBAR).</p> <p>Please also refer to EMPr Appendix F of the DBAR 2.</p> <p>3.4.3. <If the developer (applicant) of water use related infrastructure is not the end</p>

¹⁰ Assess the potential impacts with regard to their nature, extent, magnitude, duration, probability and significance – each impact must be described in terms of source of impact, pathway (propagation of impact) and receptor (target that experience the risk or impact)

¹¹ The mitigation measures should be collated in an Environmental Management Plan (EMP) - refer to the Department of Environmental Affairs and Tourism's regulations, Government Notice No. R. 385 in Government Gazette No. 28753 of 21 April 2006 for minimum standards

3. Impact Assessment and Management	
	<p><i>user/beneficiary and will not be responsible for long term maintenance of the infrastructure, provide a programme for hand over to the successor-in-title¹² including a brief management/maintenance plan for infrastructure along with allocation of responsibilities></i></p> <p>SANRAL is responsible for ongoing maintenance of the national roads including maintenance of drainage.</p>
3.5 Changes to the Watercourse	<p>3.5.1. <i><Assess to what extent the impacts after mitigation will bring about <u>changes</u> in respect of the PES (and recommended ecological category, if this information is available at the stage of study) and functionality of the <u>watercourse</u>; as well as the <u>socio-economic environment</u> (including redress considerations as well impacts on other water users)></i></p> <p>Please refer to Section 7 of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of DBAR 2).</p>
3.6 Monitoring and Compliance	<p>3.6.1. <i><Provide a detailed monitoring programme and describe the auditing, compliance and reporting mechanisms to ensure execution of the mitigation measures and for informing DWAF of incidents – ensure that these measures are appropriate in relation to the impacts, mitigation measures, status of the watercourse, etc.></i></p> <p>Please refer to Section 8 of the Wetland and Riparian Impact Assessment Specialist Report (GroundTruth Water, Wetlands and Environmental Engineering, 2018) (Appendix D3 of DBAR 2).</p> <p>Together with EMPR Appendix F4 of DBAR 2.</p>

¹² Refer Section 51 of the NWA