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DEPARTMENT OF WATER AND SANITATION

NO. 6935 **10 December 2025**

PROPOSED REGULATIONS FOR THE PROTECTION AND MANAGEMENT OF GROUNDWATER RESOURCES

I, Pamela Castelina Majodina, Minister of Water and Sanitation, hereby gives notice in terms of section 69 of the National Water Act, 1998 (Act No. 36 of 1998), to make the Regulations for the protection and management of national groundwater resources, in terms of section 26(1)(a), *(b)*, *(g)* and section 143 of the National Water Act, 1998.

Any person wishing to comment on or make representations with regards to the proposed Regulations is hereby invited to do so within 60 days of the date of publication of this notice (excluding from 15th December 2025 to 05 January 2026). All such comments and representations must be submitted, in writing, in any of the following ways:

By post to:
The Director-General
Department of Water and Sanitation
Private Bag X313
Pretoria
0001

By hand to:
The Director-General
Department of Water and Sanitation
Sedibeng Building, 185 Francis Baard Street,
Pretoria
0001

By e-mail to: groundwaterregs@dws.gov.za

Comments or representations must be marked for the attention of: Deputy Director-General: Regulation, Compliance and Enforcement, Mr Collin Xolani Zwane.

Any enquiries in connection with the proposed Regulations may be directed to Ms R. N. Mazwi at 012 336 7554 or to mazwir@dws.gov.za.

Comments received after the closing date may not be considered.

The Department of Water and Sanitation complies with the Protection of Personal Information Act, 2013 (Act No. 4 of 2013). Comments received and responses thereto are collated into a comments and response report, which will be made available to the public as part of the consultation process. If a commenting party has any objection to his or her name, or the name of the represented company or organisation, being made publicly available in the comments and responses report, such objection must be highlighted in bold as part of the comments submitted in response to this Government Notice.

P C MAJODINA, MP
MINISTER OF WATER AND SANITATION
DATE:

SCHEDULE

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CHAPTER 1
DEFINITIONS, PURPOSE AND APPLICATION OF REGULATIONS

Definitions

1. In these Regulations, any word or expression to which a meaning has been assigned in the Act shall have the meaning so assigned, and unless the context indicates otherwise—

"abandoned borehole" is a borehole that is found to be dry, closed or unused;

"**artesian borehole**" means a borehole that brings water to the surface without pumping because the water is under pressure within the body of rock, aquifer;

"borehole" has the meaning assigned to it in section 1 of the National Water Act, 1998;

"borehole casing" means a tubular lining of a borehole inserted to ensure borehole stability and integrity;

"borehole decommissioning" means the process required for boreholes that are no longer in use, to ensure safety after cessation;

"borehole siting" means the process of identifying/locating drilling target positions for a new borehole with the potential to yield water;

"borehole testing" means the process whereby a borehole is subjected to pumping under controlled test conditions in order to determine the performance characteristics of a borehole;

"borehole yield" means the volume of water that can be abstracted from a borehole;

"blow yield" means a quantity of water blown out of the borehole at each water strike during drilling;

"cemeteries" means a place where the remains of dead people are buried or otherwise interred. This can include burial grounds, gravesites, graveyards, or a green space called a memorial park;

"coordinate" means two values that represent the longitudinal and latitudinal offset of a geosite;

"data owner" means a person or an organisation that owns geosite data;

"driller" is a person who owns drilling equipment and assumes the responsibility of operating the equipment for water drilling and is registered on prescribed DWS Systems or any delegated authority for undertaking any geosite drilling activities;

"existing lawful use" means the use of water authorised by or under any law that took place at any time for a period of two years before the commencement of the National Water Act 1998;

"existing water user" means a water user that use water from a geosite in an area prior to commencement of these Regulations;

"field measurement" is a term used to describe pre-selected parameters that are observed in the field, as part of the water sampling process;

"general authorisation" is an authorisation to use water without a license, provided that the water use is within certain limits and complies with conditions set out in the general authorisation as Gazetted;

"geophysical data" is the data used to provide information on the physical properties of the earth's surface and subsurface;

"Geohydrological Report" means the technical report which reflects the hydrogeological investigations;

"Geohydrological Reports System" is a database that contains groundwater related technical reports compiled by Departmental Officials or Consultants or Contractors;

"geosite" means a feature that is a naturally occurring, or artificially excavated, or constructed, or improved underground cavity which can be used for the purposes of water storing in an aquifer, extracting water from an aquifer, collecting data of water in an aquifer and recharging water in an aquifer (types of geosites include borehole, dug well, well point, tunnel, lateral collector, mine, seepage pond, sinkhole and drain);

"Geosite Identification Allocator Tool" is a tool that provides the ability to allocate and manage identifiers which are used for capturing and identifying data on the National Groundwater Archive;

"groundwater-dependent ecosystems" are defined as ecosystems that depend on groundwater such that they would be significantly altered and even irreversibly degraded if groundwater availability (quantity & quality) was to change beyond its normal range of fluctuation;

"groundwater protection scheme" means a component of aquifer protection that prevents pollution of groundwater resource supply systems for all scales and types of use where groundwater quality needs to be maintained;

"groundwater protection zone" is an area delineated with the aim of protecting a groundwater resource by restricting certain activities in the vicinity that may compromise its quality;

"hydrocensus" is a task that involves gathering information on water features, water supply sources and sources of potential water pollution in a particular site or area;

"hazardous substance" is a substance that can present a significant threat to public health, welfare, or the environment when released;

"identifier" means a number allocated to a geosite by a data owner. This number is used along with the data owner to uniquely identify a geosite;

"Integrated Regulatory Information System (IRIS)" means the national integrated regulatory information system of the Department where various reports and data required in these regulations must be uploaded too.The system can be accessed at https://ws.dws.gov.za/IRIS/login.aspx. For assistance on registration and upload of reports or data the IRIS helpdesk contact details are available on https://ws.dws.gov.za/IRIS/login.aspx.

"intended geosite purpose" means the reason(s) why the geosite has been identified for drilling, developing, monitoring, dewatering, drainage, exploration, monitoring, production (water supply), recharge, standby, waste disposal, etc);

"International Organization Standardization 17025" the international standard that specifies the general requirements for the competence of testing and calibration laboratories;

"lithology" means the physical characteristics of a rock;

"geological log" means description of the rock's visible physical characteristics with low magnification microscopy, such as colour, texture, grain size and composition;

"National Groundwater Archive" is a web enabled database system that allows capturing, viewing, modifying and extraction of groundwater related data by registered users;
"**Person**" includes a natural person, a juristic person, an unincorporated body, an association, an organ of state and the Minister;

"pump installation" refers to the process of setting up and placing a pumping system in its intended location, ensuring it is connected to the necessary components and making it ready for operation;

"pump installer" means a person who is responsible for the installation, maintenance, and commissioning of a pump system on a borehole;

"SANS 10299" refers to the South African National Standards for the Development, Maintenance and Management of Groundwater Resources;

"site owner" means an individual or an organisation that owns a geosite or owns the property on which the geosite is found or is the head man of the rural area;

"Schedule 1 users" refers to Schedule 1 of the National Water Act, (Act No. 36 of 1998) which lists a range of permissible water use;

"Standard Descriptors for Geosites" means a set of standards (or protocols) on how to describe geosite data as well as a list of geosite types;

"Strategic Water Source Areas" are currently defined as areas of land that either: (a) supply a disproportionate (i.e. relatively large) quantity of mean annual surface water runoff in relation to their size and so are considered nationally important; or (b) have high groundwater recharge and where the groundwater forms a nationally important resource; or (c) areas that meet both criteria (a) and (b). They include transboundary water source areas;

"**The Act**" means the National Water Act (Act No. 36 of 1998);

"water quality" describes the physical, chemical, biological, and aesthetic properties of water which determine its fitness for a variety of uses and for protecting the health and integrity of aquatic ecosystems;

"water quantity" refers to the volume of water abstracted at a geosite as measured by a water measuring device;

"water strikes" means term used to describe the particulars where water was encountered when a borehole was drilled; and

"Water User Association" means a water management institution, but their primary purpose is to operate at a restricted localised level, and are in effect co-operative associations of individual water users who wish to undertake water-related activities for their mutual benefit;

Purpose of Regulations

2. The purpose of these Regulations is to—

(a) identify and control certain activities related to the drilling of boreholes to ensure the protection of groundwater resources;

(b) set general and specific requirements, practises and standards for drilling and management of aquifers and boreholes;

(c) improve data and information management to better manage groundwater resources through the following:

(i) the registration of geosites for all existing and new groundwater users;

(ii) the registration of information for drillers and pump installers;

(iii) the capturing of borehole drilling information and geosites information; and

(iv) the capturing of geohydrological information and reports.

(d) streamline the SANS standards for groundwater management, drilling and pump testing; and

(e) ensure that groundwater is managed in a sustainable manner.

Application of Regulations

3. These Regulations apply to all groundwater users (new and existing) including those issued with entitlements, permits, water court orders throughout the Republic of South Africa and must be read together with the conditions of such an entitlement, permit or water court order.

CHAPTER 2
PROVISION OF DRILLING AND PUMP INSTALLATION INFORMATION

Obtaining existing geosite information

4. All borehole owners, including Schedule 1, Existing Lawful Use (ELU), General Authorisation (GA), and water use license users, must capture their details and details of the existing geosite information on the National Groundwater Archive (NGA). See **Annexure 1** for registration of information. Existing users are expected to register their details within 12 months of these Regulations.

Acquisition of geosite information before drilling

5.(1) A person must obtain geosite identifiers from the NGA before undertaking drilling of a borehole on any aquifer.

(2) The water user and or driller of the geosite must capture and provide, at minimum, the drilling data on the NGA, in line with the Standard Descriptors for Geosites (SDG), and within two months after the closure of the registered project on the Geosite Identification Allocator Tool (GIAT). The complete information requirements for geosite data for capturing on the NGA are shown in **Annexure 1**.

Provision of pump installation settings

6. (1) Any person who intends installing borehole pumping equipment for the purpose of abstracting water from an aquifer must provide yield test result or recommended sustainable abstraction rate together with the pump installation settings on the NGA before commencement of water abstraction.

(2) All persons with existing installed pump equipment on boreholes must provide the pump installation settings on the NGA within twelve months of commencement of these Regulations.

CHAPTER 3
PROHIBITIONS AND RESTRICTIONS

Prohibited areas

7.(a) Drilling of boreholes for any water use, including domestic, mining, industrial, livestock and irrigation purposes, are prohibited within 50m from cemeteries, informal waste

disposal sites, subsistence agriculture activities, animal kraals, watering points and dipping tanks, fuel tanks, informal vehicle servicing, spray painting and parts washing facilities, pit latrines or other potentially hazardous operations areas.

(b) Drilling of boreholes for any water use within one (1) kilometre from strategic infrastructure.

Prohibited activities

8. The following activities are prohibited:

(a) the use of a geosite that is not registered on the NGA and related information management systems;

(b) the disposal or injection, without a water use authorisation, of any waste or chemicals that may detrimentally impact or pollute the water resources; and

(c) the injection, without approval by the responsible authority and without a water use authorisation, of chemicals for rehabilitation of a borehole.

(d) The disposal of hazardous substances, effluents/contaminated runoff from mining, agricultural or industrial activities in areas identified as groundwater protected areas without prior authorisation.

Restricted areas

9. The drilling of boreholes for any use is restricted within—

(a) the locally defined distance from Strategic Water Source Areas, informed by the outcomes of research studies on their protection approach;

(b) five kilometres of a freshwater ecosystem or priority areas, critical biodiversity areas or areas with high conservation status as determined by the South African National Biodiversity Institute (SANBI); and

(c) all areas in the Republic of South Africa identified and declared as restricted in terms of any international conventions.

(d) A borehole may not be drilled within a groundwater protection zone should there be potential impacts by streamflow reduction activities, agricultural activities, and open cast or underground mining; based on specialist studies.

CHAPTER 4
GROUNDWATER DEVELOPMENT

Groundwater development for communal water supply services

10. All groundwater development for the purposes of water supply to communities must be conducted according to the most recent/updated Standard Operating Procedure (SOP) for Groundwater Resource Development for Community Water Supply Projects (DWS, 2023), as published on the DWS website.

Groundwater protection

11. (1) Municipalities must develop a groundwater protection scheme within 5-years from the promulgation of the Regulations.

(2) Appropriate groundwater buffers with respect to groundwater protection schemes, including groundwater protection zones, as developed by municipalities in accordance to the WRC Guidance Document TT 902/22 (Gibson & McGibbon, 2023), must be adhered to inform monitoring frequency of a groundwater resource towards compliance reporting.

(3) A re-calculation of local groundwater protection zones, based on local aquifer characteristics is recommended if significant groundwater abstractions or land uses are proposed.

(4) Municipalities must ensure the appropriate education in respect of safe, effective and efficient groundwater use and management.

Schedule 1 Use

12. (1) Any person who contemplates to drill a borehole under Schedule 1 of the National Water Act, 1998 must inform the municipality prior to drilling the borehole.

(2) All municipalities must develop municipal abstraction limits for all boreholes in their area of jurisdiction.

(3) If a Schedule 1 water user, uses water from municipal supply and supplements or augments with borehole water and its use exceeds the municipal water abstraction limits; the contemplated use is no longer considered reasonable as per Schedule 1 and the borehole must be authorised in terms of section 4(3) of the Act.

Borehole drilling

13. For any new drilling activities, the water user must appoint a driller, who is registered on the NGA, to manage the drilling operation.

Borehole siting

14. (1) Borehole siting must be conducted according to SANS 10299-1:2003 or any applicable best practices or guidelines.

(2) The geophysical data related to borehole siting for drilling of a borehole must be compiled as part of the Geohydrological Report.

Borehole construction

15.(1) All new boreholes must be constructed according to the SANS 10299.

(2) Sub-regulation 15(1) also applies to dry and abandoned boreholes, to adhere to the prescribed standards.

Borehole decommissioning

16. All dry or unused boreholes must be decommissioned within 60 days of final use. Borehole decommissioning must adhere to SANS 10299-9 or any equivalent best practice guideline or standard.

Capping of artesian boreholes

17. Artesian boreholes must be capped by the registered owner at their own expense and the boreholes must be capped by a registered driller and the information must be captured within 60 days on the NGA.

Blow yield and borehole testing

18.(1) Boreholes in use for abstraction, for any purpose contemplated under the Act, must be subjected to borehole testing according to SANS 10299-4 or any applicable best practices or guideline; and must be installed with a pump that is suitable for the capacity of the borehole based on the borehole yield results.

(2) The borehole testing results contemplated in sub-regulation 18(1) must be registered and captured on the NGA.

(3) The blow yield measurements and water strikes intercepted during the drilling of any borehole must be captured on the NGA.

(4) The pump installed or to be installed on any borehole must adhere to SANS 10299-4, and the capacity of the installed pump must be captured on the NGA.

Geohydrological Reporting

19. (1) The Geohydrological Report contemplated in sub-regulation 14(2) must be compiled according to the Regulations regarding the Procedural Requirements for Water Use License Applications and Appeals (published under GNR. 267 in Government *Gazette* No. 40713 of 24 March 2017) and must be submitted uploaded on Geohydrological Reports System at https://www.dws.gov.za/ghreport/

(2) Schedule 1, ELU and GA water users must provide all available information as per **Annexure 1** onto the NGA

(3) Water Use Licence holders must provide geological and hydrocensus information in the prescribed format as contemplated in the Electronic Water Use License Application and Authorisation System (e-WULAAS) and upload it on the Geohydrological Reports System at https://www.dws.gov.za/ghreport/

(4) The geological logs of the drilled boreholes must be recorded as part of the Geohydrological Report contemplated in sub-regulation 14(2) and must be captured on the NGA.

CHAPTER 5
WATER QUANTITY AND QUALITY ASSESSMENT

Water quantity assessment

20. (1) ELU, GA and water use license holders must measure groundwater levels biannually or in accordance with the water use license conditions or GA. Water quantity assessment must adhere to SANS 10299-8:2003 or any equivalent best practice guideline and must be captured on the NGA annually or in line with the applicable authorization.

(2) All groundwater users must install metering devices to monitor volumes of water abstracted on each geosite in use and data on abstracted volumes must be captured on the NGA annually or in line with the applicable Authorisation;

(a) a water user must ensure that metering devices are replaced and repaired should they break or be stolen; and

(3) In the event, that a change in pump rate and volume abstracted affects the authorisation of the water use, the water user must notify the Responsible Authority and follow the required e-WULAAS process; and update the information on the NGA.

Water quality assessment

21. (1) Water quality sampling and analysis for groundwater users must be conducted in line with the applicable authorization and results must be captured on Integrated Regulatory Information Systems (IRIS) at https://ws.dws.gov.za/IRIS/login.aspx .

(2) Water quality sampling and analysis for Schedule 1 and ELU users must be conducted annually; the results must be captured on the NGA.

(3) Any water analysis must be conducted using laboratories that are accredited for using the International Organization Standardization (ISO/IEC 17025) standards.

CHAPTER 6
WATER USES AUTHORIZATION

Water Use Authorization

22. (1) The Department of Water & Sanitation must be granted access to boreholes for routine audits on groundwater quantity and quality.

(2) All water users subjected to the water use entitlement as contemplated by the Act are obligated to notify or apply for the appropriate water use authorization to the Responsible Authority for any use of water other than the entitled or authorized.

(3) For any application for water use license for any geosite, the water user must adhere to the requirements contemplated in the Regulations regarding procedural requirements for water use license application and amendments (as Gazettes).

CHAPTER 7
OFFENCE

Offences

23. (1) A person is guilty of an offence if that person—

(a) Fails or refuses to give data or information, or provides false or misleading information in any form, including any document submitted in terms of these Regulations to the responsible authority and the public, or intentionally omits information that may have an influence on the outcome of a decision of a responsible authority.

(b) obtains a water use authorisation through fraud, non-disclosure or material information or misrepresentation of a material fact, or

(c) fails to comply with any provision of these Regulations.

(2) Any person who contravenes any provision of sub-regulation 23(1) is guilty of an offence and liable, on the first conviction, to a fine or imprisonment for a period not exceeding five years, or to both a fine and such imprisonment and, in the case of a second or subsequent conviction, to a fine or imprisonment for a period not exceeding ten years or to both a fine and such imprisonment.

CHAPTER 8
SHORT TITLE

Short title and commencement

24. These Regulations are called the Regulations for the Protection and Management of Groundwater Resources, 2025 and come into operation on the date of publication in the Government *Gazette*.

CHAPTER 9
REFERENCES

Department of Water and Sanitation. (2017). *Regulations regarding the procedural requirements for water use licence applications and appeals.* Pretoria. Retrieved from https://www.gov.za/sites/default/files/gcis_document/201703/40713rg10701gon267.pdf

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Gibson, K., & Mc Gibbon, D. (2023). *Guidance document on Protection Zones (Delineation and Protection): Development of methodological approach and implementation plan.* Pretoria: Water Research Commission. Retrieved from https://wrcwebsite.azurewebsites.net/wp-content/uploads/mdocs/TT%20902%20final%20web.pdf

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Standards South Africa. (2003). *South African National Standard - Development, maintenance and management of groundwater resources - Part 1: The location and siting of water boreholes.* Pretoria.

South African Bureau of Standards. (2003). *South African National Standard: Development, maintenance and management - Part 4: Test-pumping of water boreholes.* Pretoria.

Standards South Africa. (2003). *South African National Standard - Development, maintenance and management of groundwater resources - Part 8: The management of water boreholes.* Pretoria.

Standards South Africa. (2003). *South African National Standard - Development, maintenance and management of groundwater resources - Part 9: The decommissioning of water boreholes.* Pretoria.

Standards South Africa. (2003). *South African National Standard: development, maintenance and management of groundwater resources.* Pretoria.

ANNEXURE 1: THE COMPLETE GEOSITE DATA SET FOR CAPTURING ON NGA

BASIC INFORMATION	
Geosite Information (Mandatory):	Geosite Additional Information (Optional):
NGA Identifier	Geomorphology
Geosite Type	Intended Geosite Purpose
Reference Datum	Land Cover
Coordinates	Observed/Actual Water Uses
Coordinates Method	Water Consumer
Elevation	Water User Association
Elevation Method	

CONSTRUCTION
Construction Completion
Depth & Diameter
Casings
Casing Intervals
Fill Materials
Openings & Screens
Developments
Piezometers

UTILISATION OF A GEOSITE
Abstractions
Discharge Rates
Equipment Installed
Field Measurements (pH, Electric Conductivity, Temperature)
Water Levels (Static)

HYDROLOGICAL ASPECTS
Downhole Geophysics
Lithology (every 1 meter)
Water Strikes Level (Total Blow Yield / Individual Contribution Values / Seepage Values)

GEOSITE EVALUATION

Operational Recommendations
Pumping Test Details
Yield Test
Calibration Yield Test
Constant Yield Tests
Multi-Rate Yield Tests
Step Yield Tests
Observation Geosite
Constant Yield Tests
Step Yield Tests
Variable Yield Tests

ADDITIONAL INFORMATION
Site Owner (property details and relevant contact numbers)

WATER QUALITY
Water Quality Details as per given definition and SANS 241: 2015