



water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

REGULATIONS ON GROUNDWATER

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Introduction

Definitions:

- **Aquifer** – a underground layer of water-bearing permeable rock, rock fractures or unconsolidated materials (gravels, sand, or silt) from which groundwater can be abstracted using a borehole or dug well.
- **Hydrogeology** – study of water flow in aquifers and the characterization of aquifers.



Windpump on the farm
Tiekosklip, Langebaan
area – 28 August 2017
[NV]

Legal framework

- Water Act of 1956 (Act 54 of 1956) – groundwater in private ownership, riparian rights
- **National Water Act of 1998 (Act 36 of 1998) – Minister / DWS the custodian of water.**
- National Environmental Management Act of 1998 (Act 107 of 1998)
- Promotion of Administrative Justice Act of 2000 (Act 3 of 2000)
- Others....



Borehole G46029 with data logger –
28 August 2017 [NV]

Different authorisations

- Existing Lawful Use (ELU) – use during window period
- Schedule 1 – reasonable domestic use
- General Authorisations – below volume set for quaternary drainage region
- WULAs
- Small industrial use
- **WARMS registration ≠ authorisation**



Taking a waterlevel reading at dug well BF3 – 29 August 2017 [NV]

Eleven water uses

Section 21 of the NWA of 1998

- **21(a) taking of water from a resource**
- 21(b) storing of water
- 21(c) impeding or diverting flow of water in a water course
- 21(d) engaging in a stream flow reduction activity ...
- 21(e) engaging in controlled activities, irrigating with waste water, artificial recharge, etc. **(Fracking)**
- 21(f) discharging waste or water containing waste ...
- 21(g) disposing of waste ...
- 21(h) disposing in any manner of water which contains waste ...
- 21(i) altering the bed, banks, course or characteristics of a water course
- 21(j) dewatering of a mine area
- 21 (k) using water for recreational purposes



Downloading a data logger –
7 September 2017 [NV]

Application procedure for authorisation

- Pre-WULA meeting – state intent to apply for authorisation
- Formal application (**complete** = all documents signed, administration fee paid with proof of payment provided)
- Send formal notification of receipt of application
- Evaluation of licence documents for completeness
- Comments by specialists, i.e. geohydrologists, wetlands specialists, etc.
- Record of Recommendation (RoR) compiled – recommended / declined
- Presented to regional WUAAC
- Recommended – licence drafted and licence conditions set; sent to Pretoria for issuing
- Approval – letter sent to the client
- Declined – letter sent to client



Taking a water sample from
borehole G33302 –
14 November 2017 [NV]

Documents to include in application

- Forms (completed correctly and signed – www.dwa.gov.za)
- **Geohydrological report:**
 - **Borehole information**
 - **Yield of borehole(s) – proper pump test with waterlevels measured**
 - **Volume to be abstracted and intended use**
 - **Hydrocensus (impact on other groundwater users)**
- Proof of payment
- Copy of ID
- Any other documents or reports, such as a wetlands analysis, if required



Solar panel connected to a borehole pump for abstraction – 29 August 2017 [NV]

Municipal by-laws

- Comply with municipal by-laws
- Register your borehole
- **58. Notice of the sinking or digging of boreholes, wells and wellpoints**
 - No one may sink or dig, or cause or permit to be sunk or dug, a well, wellpoint or borehole, unless the Director is provided with at least 14 day's written notice of his or her intention to do so.
 - The notice contemplated in subsection (1) must state the proposed location and propose for which the water is to be used.
 - If water obtained from a borehole or other source of supply on any premises is used for a purpose which gives rise to the discharge of such water or a portion thereof into the sewerage system of the City, the owner must install a meter to the specification of the City in the pipe leading from such a borehole or other source of supply to the point or points where it is so used.



Flow meter to measure abstraction from a borehole

28 August 2017 [NV]

Municipal by-laws

- **58. Notice of the sinking or digging of boreholes, wells and wellpoints** (continued)
- The Director may, by written notice, require the owner of any premises within any area or the City upon which a borehole exists or, if the owner is not in occupation of such premises, the occupier to notify him or her of the existence of a borehole on such premises, and provide it with such information about the borehole as he or she may require.
- The Director may require that a study be undertaken at the cost of the owner in order to assess any impact the proposed well, well-point or borehole may have on the wellbeing of the community.



Flow meter to measure abstraction from a borehole –
28 August 2017 [NV]

Questions



Groundwater fed spring,KN3 – 4 September 2017 [NV]

- Contacts

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