



Wastewater Treatment and Discharge Authorisation Requirements: Memo

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| Attention | Deon Van Zyl / WDPDF | Date: | 21 February 2022 |
| From: | Matthew Law | Revision No: | 1 |
| Subject: | Wastewater (Sewage) Treatment and Discharge Authorisation Requirements | | |

The Western Cape Property Development Forum (WCPDF) management committee requested that SRK Consulting (South Africa) (Pty) Ltd (SRK) compile this memo to outline its understanding of the environmental authorisation requirements for wastewater (sewage) treatment and disposal in terms of the National Environmental Management Act 107 of 1998 (NEMA) and National Water Act 36 of 1998 (NWA). This request was made in the context of constrained municipal wastewater treatment capacity in Cape Town.

This memo outlines SRK's understanding of these requirements based on experience with such applications, but should not be considered as definitive legal advice. Authorisation requirements are complex, and a qualified professional should be consulted to ascertain specific requirements on a case-by-case basis.

1 Wastewater (Sewage) Treatment and Discharge Authorisation Requirements

National Environmental Management Act 107 of 1998:

- The construction and operation of a wastewater **treatment** facility with a daily throughput capacity of less than 2 000 m³ does not require Environmental Authorisation in terms of NEMA.

A wastewater treatment facility with a daily throughput capacity exceeding 2 000 m³ per day requires Environmental Authorisation in terms of NEMA either through a Basic Assessment (BA) process¹ or through a full Scoping and Environmental Impact Reporting (S&EIR also known as an EIA) process².

National Water Act 36 of 1998:

- In terms of the NWA, wastewater **treatment** does not require licensing *per se*, and the discharge of treated effluent into the municipal sewer is not a water use / does not require authorisation in terms of the NWA. However, in some circumstances, the City of Cape Town (CoCT) can no longer accept treated effluent into the municipal sewerage system. Therefore, treated effluent must be managed through alternative processes, often on site. In these circumstances Water Use Authorisation (WUA) is required to **dispose** of treated effluent into a surface or groundwater resource (NWA Section 21[f]) or to **irrigate** with treated effluent (NWA Section 21[e]).

¹ Daily treatment capacity of between 2 000 m³ and 15 000m³ = ~6 months duration for application

² Daily treatment capacity of more than 15 000m³ = ~11 months duration of application

These water uses are either authorised through General Authorisation (GA) or licensing (Water Use Licence - WUL) based on the volume and quality of water (refer below). While applications for GA should be streamlined, and licensing processes should not exceed 300 days, in practice, the process for GA and WUL are of similar duration (and can exceed 300 days).

Now it gets a bit (more) complicated...

- Should **discharge** of treated effluent (e.g. via disposal or irrigation) require either a **GA or WUL** in terms of the NWA, then Environmental Authorisation is required in terms of NEMA through a **full S&EIR process** regardless of the volume of treated effluent to be discharged (~11 month process)³.

So, in effect, one would not need Environmental Authorisation **for treatment** of sewage by a facility with capacity of **less than 2 000 m³ per day** but would require Environmental Authorisation for the **discharge of the treated effluent** (regardless of the volume).

In summary:

| | BA | S&EIR | WUA (GA or WUL) |
|---|----|-------|-----------------|
| Sewage Treatment | | | |
| Less than 2 000 m ³ / day | | | |
| Between 2 000 m ³ and 15 000 m ³ / day | X | | |
| More than 15 000 m ³ / day | | X | |
| Treated Effluent Discharge (e.g. disposal into water resource or irrigation) | | | |
| Any volume | | | X |
| Authorised through NWA GA | | X | |
| Authorised through NWA licence | | X | |

2 “Blanket” Environmental Authorisations

Applications for Environmental Authorisation must be undertaken on a site and project specific basis. However, (and following the WCPDF meeting on 8 February 2022 when blanket authorisations were raised for wastewater treatment) it is possible for the competent authority (“on its own initiative or on request from a person”), to direct a person to carry out a listed or specified activity, without obtaining an Environmental Authorisation “in order to prevent or contain an emergency situation or to prevent, contain or mitigate the effects of the emergency situation” in terms of Section 30A on NEMA – this provision was enacted for water treatment (desalination) during the drought crisis.

3 National Water Act General Authorisations Limits

3.1 NWA Section 21(e) – Engaging in a Controlled Activity Including Irrigation of any Land with Waste or Water Containing Waste

This GA is applicable when:

- No more than 2 000 m³ of domestic wastewater is irrigated on any given day; and
- Water quality complies with wastewater limits (see Table 1.1 at [this link](#)).

This GA is only permitted when irrigation takes place:

- More than 50m above the 1 in 100 year flood line or riparian habitat whichever is the greatest;
- At least 100m from a water course;
- At least 500m from a borehole that is utilised for drinking water or stock watering;
- At least 500m from a wetland; and
- On land that is not, or does not, overlie a major aquifer.

³ NEMA Listing Notice 2 (GNR 984 of 2014 as amended by GNR 325 of 2017), Activity 6: The development of facilities or infrastructure for any process or activity which requires a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent.

3.2 NWA Section 21(f) – Discharge of Waste or Water Containing Waste into a Water Resource through a Pipe, Canal, Sewer (other than municipal sewerage system) or Other Conduit:

This GA is applicable when:

- Less than 2 000 m³ of domestic wastewater is discharged on any given day; and
- Discharge water quality complies with general or special wastewater limits (see Table 2.1 at [this](#) link) depending on the water resource (refer to Table 2.3 at the same link for water resources where the special limit would apply).

This GA is not applicable is not applicable if:

- Discharge is to the sea;
- Discharge is to an aquifer or groundwater resource;
- Discharge is to a closed drainage system; or
- Discharge is into an off-channel dam.

Regards;

SRK Consulting (South Africa) (Pty) Ltd

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