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## CONFIRMATION OF AVAILABLE CAPACITY PTN 3 OF FARM 180, PTN OF REM FARM 180 & PTN 13 OF FARM 168 FISANTEKRAAL

### Background

This a proposed sub division of the above mentioned sites which was approved in 2011 and then lapsed in 2016. This application was discussed again with city officials in 2017. The combined area is approximately 26.5 ha. The site has the lowest point to the eastern corner of the proposed development. The bulk of the GLA was meant for

The proposal is for industrial and commercial development with the estimated water and sewer requirements as per the table below.

**Table 1.1: Water and sewer demands as provided by consultants**

ERF Number	Water Demand			Sewer Demand	
	Land use Type	Total AADD (kl/d)	Peak Flow (l/s)	Total ADWF (kl/d) 80%	Peak Flow (Dry weather) (l/s)
Ptn 3 of Farm 180	Industrial GLA 29 597m <sup>2</sup>  Commercial GLA 1 211m <sup>2</sup>	93.92			
Rem of Farm 180	Industrial GLA 39 078m <sup>2</sup>  Commercial GLA 2 665 m <sup>2</sup>	126.51			
Ptn 13 of Farm 168	Industrial GLA 30 714 m <sup>2</sup>  Commercial GLA 1 987 m <sup>2</sup>	99.18			
Total	Industrial GLA 99 389 m <sup>2</sup>  Commercial GLA 5 863 m <sup>2</sup>	319.61	25.9	256kl/d	8.5l/s

### Water Reticulation

There are 2 distribution mains that supply the area, a 450 mm and 250 mm mains. Both mains fairly high pressures that is supplied from the Spesbona Reservoir. There is sufficient storage and flow capacity to supply the development.

There may be a need to pressure manage the supply into the development.

The developer will also have to incorporate water demand management interventions in the development.

### Sewer Reticulation

Currently there are a number of sewer rising mains surrounding the site but the nearest place to drain to at the moment is the southern corner of the Park (erf1775) Fisantekraal business park pump station. Our current model records indicate that the station can likely take an additional peak of 5 l/s.

The proposed development will naturally drain to the north easterly corner of the site. The developers plan is to pump an additional flow from the development to the Fisantekraal business park pump station. Should the flow from the development be above 5l/s the Fisantekraal business park pump station will have to be upgraded.

There is a future plan to reconfigure the sewer system surrounding the site and the developers engineer will have to work closely with the reticulation officials involved in the sewer operations of the broader precinct.

The future plan is to replace the Fisantekraal business park pump station with a new pump station closer to a better located low point closer to the Mosselbank River.

A new gravity main will be constructed to drain developments east and west of the Mossel bank river to Fisantekraal Bulk Sewer Pump Station which will then pump sewer to the Fisantekraal WWTW.

The timing of the above may not be in sync with the development and may result in some temporary solutions at the developers cost.

### Pollution Control

All industrial effluent to conform to the industrial effluent by-law.

### Wastewater

The proposed development falls into the Fisantekraal Wastewater Treatment Works Catchment. This works has sufficient spare capacity to accommodate wastewater flow of the proposed development.

### Conclusion

The water network has sufficient capacity. The existing Fisantekraal Business Park PS will have to be relocated and/or upgraded to accommodate the proposed development

### Conditions

The development can proceed if the following conditions are met:

1. Development contributions may be payable as per the DC policy.
2. All service infrastructure to be designed to city standards and approved prior to construction.

3. The upgrade at the existing Fisantekraal Business PS will have to be implemented.
4. The developer provides evidence of water saving measures incorporated into the development.
5. All link infrastructure is required to be in place prior to the occupation of any building.

Additional Technical Requirements

6. Water and Sanitation municipal service designs to be designed according to Departmental Service Standards and be approved prior to construction.
7. That no structure is constructed over the municipal service.
8. Application must be made for any new water metered connections to the Reticulation Regional Operational Manager
9. The water and sewer capacities allocated according to this document, if not taken up, shall not be reserved beyond the lesser of 5 years or the approved development period.

General/ Disclaimer

Information provided is based on best available data.  
The flows and pressures provided in this comment are theoretical and not measured.  
All levels provided should be verified on site.

Yours Faithfully

2020/03/20

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Signed by: Shamile Manie

On behalf of  
Zolile Basholo  
**ACTING DIRECTOR: WATER & SANITATION DEPARTMENT**