



06 March 2018

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**WATER AND SANITATION COMMENT FOR CAPE TOWN FILM STUDIOS – DREAMWORLD**

Background

DEVS is assisting with the overall Greater Film Studios Precincts Demands and have requested an updated Water and Sanitation capacity report to the previous one sent to Norman van der Merwe of WEC-Consult dated 28 July 2016.

Table 1.1: Estimated water and sewer demands

Description		Potable Water Demand				Sewer Flow*	
ERF Number/Portion Number	Application (Residential/ Commercial or Consent use)	Quantity (Units/Area/ No. people)	Total AADD (kl/d)	Peak Flow (l/s) (PF=4.0)	Fire Flow (l/s)	Total ADWF (kl/d)	Peak Flow (Dry weather) (l/s) (PF=2.0)
ST653-16	Commercial	5605m2	1112	57.92	25	890	20.59

\*Based on an 80% sewer flow design criterion

Water Reticulation

There is a bulk water 2400mm Ø (Cape Town – CMC 110-Faure 2400 Pipeline) lying to the north of the development off which a 535mm Ø stub feeds the 380mm Ø Steel District Bulk Main (installed 2010) this pipe has a full flow capacity of 136 l/s so can accommodate peak flow for the Dreamworld Development.

Sewer Reticulation

The 300mm sewer line servicing the site can accommodate the peak flow contribution of the proposed development while maintaining adequate spare capacity and there is no downstream constraints en-route to the Zandvliet WWTW.

Bulk Water Branch

The Bulk Water Branch has no ‘in principle’ objection to the proposed development, cognizance must however be taken of the bulk water pipelines and servitudes, and is subject to the conditions of Bulk Water letter dated 6 April 2016 Ref: 18/6/1

“Conditions on Proposed development, Cape Town Film Studios, Dreamworld: your e-mail dated 16 March 2016 “

– Contact Deen Williams @ Bulk Water Branch (email: [moegammat.williams@capetown.gov.za](mailto:moegammat.williams@capetown.gov.za))

### Wastewater Branch

Zandvliet Wastewater Treatment Works (WWTW) is currently overloaded and cannot accept the sewerage contribution from the proposed development. The planned upgrades for the plant should be completed by end 2022. Package treatment plants can be operated subject to compliance with conditions 3 – 7.

Whether the developer installs a permanent or temporary solution is up to the developer, however they will only be allowed to discharge wastewater into the sewer once Zandvliet WWTW capacity expansion has been completed.

### Conclusion

The water infrastructure has sufficient capacity. The sewer network is able to accommodate the development. The Zandvliet Wastewater Treatment Works will have to be upgraded before it is able to accommodate the additional sewer flow from the development but a sewer treatment package plant may be operated subject to conditions listed below.

### CONDITIONS

The water and sanitation infrastructure can accommodate the development subject to the following conditions:

1. Development contributions are payable as per the DC Policy, to be quantified by the Reticulation District Head.
2. The Zandvliet WWTW upgrade has to be completed before sewer will be accepted from this development, alternatively an on-site treatment package plant will be allowed until the upgraded is completed.
3. The developer will have to apply to the Dept. of Water & Sanitation for the required licence(s) to operate the packaged treatment plant. The licence(s) that will be issued will list the discharge standards that they must adhere to.
4. The Wastewater Branch has no preference in terms of the type of treatment technology implemented by the developers – the developers must satisfy themselves that the technology they implement will be able to produce a treated effluent that will comply with their respective licence condition.
5. Implementation of measures to reduce the wastewater flow (e.g. grey water reuse etc.) while not mandatory is highly recommended – this may significantly reduce the amount of sewage that needs to be treated;
6. The treated effluent from their packaged plants shall not be discharged into the sewer network – it must be used for onsite irrigation or other reuse (e.g. flushing of toilets etc.);
7. Any sludge produced by the onsite packaged treatment plant may not be discharged into the sewer network – the sludge must be processed / treated / dried on site, and final disposal of the sludge is the body corporate / developers responsibility.

### ADDITIONAL TECHNICAL REQUIREMENTS

8. The water and sewer capacities allocated according to this document shall not be reserved if not taken up before the lesser of 5 years or the approved development period.
9. The owner is responsible for application for the new water metered or sewer connection including for relocation, at the standard tariff to the Reticulation District Head.
10. Water and Sanitation municipal services are to be designed according to Departmental Service Standards and be approved prior to construction.
11. Handover of any municipal water and sanitation services will be subject to quality control during construction.

12. All service installations are to be inspected, tested and approved before occupation.

General / Disclaimer

1. Information provided is based on best available data.
2. The flows and pressures provided in this comment are theoretical and not measured  
Information provided is based on best available data.

Yours Faithfully

2018/03/09

X 

Signed by: Shamile Manie

On behalf of

**Peter Flower**

**DIRECTOR: WATER & SANITATION DEPARTMENT**

<b>BRANCH</b>	<b>CONTACT PERSON</b>	<b>INPUT PROVIDED</b>
<b>Master Planning</b>	N Ludlam	06/03/2018
<b>Bulk Water</b>	Miraaj Benjamin	06/04/2016
<b>Reticulation</b>	Marcus Swart	20/02/2018
<b>Wastewater Treatment</b>	Sven Soteman	06/03/2018