

26 November 2021

Attention: David Pause
Service Integration Office, Water & Waste Services Directorate
CITY OF CAPE TOWN
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Via email to: wsw.plans@capetown.gov.za

Dear Mr Pause

WESTERN CAPE PROPERTY DEVELOPMENT FORUM (WCPDF) COMMENT ON THE CITY'S DRAFT 2022-2027 WATER AND WASTE SECTOR PLANS

The Western Cape Property Development Forum (WCPDF) has a mandate to create awareness, address the challenges that face the property development industry and to be the collective voice of the industry in the Western Cape. It is in this context that we make the following comments on the City of Cape Town (CoCT) draft Water Services Development Plan (WSDP) and thank the City for the opportunity to do so.

It is notable that a large portion of the WSDP is devoted to strategies to improve the resilience of the City's bulk water services to respond to future water supply shocks. This is likely a function of the responses to the recent drought in the Western Cape, and the City's associated preparations for, and to avoid, "Day Zero". It could be argued that water supply constraints, and a lack of supply resilience prior to the severe drought was, at least partly, a function of a lack of foresight and planning for water supply shocks by the CoCT in the face of a growing urban population and a changing climate.

In this context, it is concerning that the City has recently issued a press release indicating that clearance for some new developments to connect to the sewerage system will be aligned to the completion of major capacity upgrades at various WWTWs – in other words, there is insufficient sanitation capacity to accommodate any further economic growth in certain areas. This can only be attributed to another failure to adopt the necessary foresight to avoid this situation.

As such, in the opinion of the WCPDF, the issue of WWTW capacity and the impact on the economic development of the City should be, by-far, the most important component of the WSDP. However, as was the case for bulk water supply prior to the recent drought, advanced planning in this regard seems to be inadequate, or insufficient detail is provided in the WSDP in order to make a proper evaluation in this regard.

In this context, the following observations on the draft WSDP are offered:

1. This report contains beautiful words and good intentions, but the reality is the department, or system, failed in so many ways in the recent past. It is time to be honest, accept the shortcomings and start to

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focus on the issues that really matter. Technical managers (Engineers) must take charge and be accountable.

2. The document would benefit from more coherent structuring – clearly articulating the specific challenges facing each water sector, the plans to address these challenges, and the budget allocations.
3. On Page 5 of the document, it is stated that the WSDP “integrates technical planning with social, institutional, financial and environmental planning”, however scant information on this integrated planning is provided. With regard to sanitation specifically, information on current and projected demand for sanitation (in MI), existing supply capacity (in MI) and the effect that planned refurbishments and upgrades will address deficiencies in supply capacity would facilitate a transparent understanding of the problems faced by the CoCT. An analysis of the regional impact of the capacity limitations for each WWTW is essential for any development and associated infrastructure planning.

It would also be beneficial to include project timeline Gantt Charts (or similar) that articulate the development timeline for each refurbishment and upgrade – including design phase, environmental permitting, tendering and construction. This is even more important for projects that are identified as “overdue” but are yet to commence.

In summary, far more detail is required in terms of characterising the challenges and identifying solutions. It is not possible to evaluate if the CoCT is able to address current challenges, and on what timeframes from the level of detail in this draft WSDP.

a. Examples:

- i. On Page 24 it is stated that the WSDP will “Promote efforts to densify the city by reviewing and upgrading infrastructure to accommodate higher residential density”, yet there is no data provided to inform the evaluation of whether this will be possible, and over what timeframe.
 - ii. On Page 26 “Status of All Water and Sanitation Infrastructure” is a subheading – but the actual status of sanitation infrastructure is barely mentioned.
 - iii. On Page 26 “Water and sanitation infrastructure that is currently constrained has been identified and projects have been triggered to assist with alleviating the constraints” – what constraints identified (i.e., volumes per catchment)? What infrastructure is planned, and how will this infrastructure address constraints?
4. While it is acknowledged in a number of sections of the WSDP that the provision of sanitation to informal residents is a key and ongoing challenge for the CoCT – from the challenges currently being faced by the City, it is apparent that this problem is not limited to informal residents, and this should be acknowledged early and clearly in the WSDP.

In this regard, the document appears to negate the responsibility of the CoCT for planning for sanitation refurbishments and upgrades:

- a. Failure to meet discharge water quality conditions is attributed to DWS shifting the goal posts with regard to the legislative requirements for discharge quality standards. However, the City’s consistent failure to meet discharge quality standards is almost certainly partly a function of a lack of adequate sanitation capacity. In this regard, it would be informative to report on discharge quality trends at each of the City’s WWTWs as opposed to simply reporting performance for one period (see Table on page 48), as well as list the changes in quality standards implemented by the DWS.
 - b. On Page 27 it is stated that “Change in legislation which no longer allows the disposal of wet waste, has accelerated the need to establish three regional plants to process sludge from wastewater plants (Bio-Beneficiation)” – this legislation was published in 2013 and came into effect in 2019 – plans should have been made implemented well in advance of 2019.
5. The severity of sanitation capacity constraints appears to be overlooked by the authors of the plan:

- a. On Page 9 it is stated that “All formal areas are adequately provided for with water and sanitation services” but new development has led to “demand exceeding the installed capacity” – in formal areas this is “fully planned for in advance” – this is clearly not the case.
- b. Remaining sewerage not connected to municipal system will be eradicated “as these residents are absorbed into new housing developments” (Page 19) – is this a realistic expectation noting existing capacity constraints?

6. Master Planning:

Co-ordinated infrastructure planning in line with development planning appears to be totally ineffective in the CoCT. Legislative Compliance is all very well, but any plan is worthless if not taken seriously and implemented.

- a. It is stated that a Sewer Master Plan, City of Cape Town, 2017/2018 financial year is available – what about 18/19, 19/20 and 20/21 financial years?
- b. On Page 32 it is stated that “Underinvestment in wastewater treatment can take up to a decade or more to manifest, and another decade or more to remedy. Hence the importance of project pipelines is to identify required infrastructure upgrades, estimate the financial requirements (CAPEX, OPEX, etc.), understand when each individual project would be needed and thereby have a proactive plan in place to prevent pollution to the receiving environment, etc.”
- c. However:
 - i. 2011 plan failed – why?
 - ii. City WSD first in-house master plan (2019) for the development and upgrading of infrastructure to ensure capacity based on Spatial Planning Scenarios with a 20-year development horizon – why did this plan fail with regard to sanitation delivery?
 - iii. “Current master plan update under way that is planned to be completed by March 2022 based on a new 2040 Land-use plan” – disappointing that this planning is being concluded well after the problem has been realised and the City was not able to pre-empt capacity constraints.

7. Various sections of the document praise the City’s mechanisms for advanced planning for infrastructure requirements, where, in reality, these have clearly been ineffective with regard to adequate sanitation provision:

- a. “To ensure long term sustainability, Water and Sanitation Services continually updates its Integrated Master Plan” to “balance demand and capacity” and “align with the City’s spatial planning and IDP strategies” (Page 24) – clearly master planning has failed with regard to the adequate provision of sanitation.
- b. A lot of attention is paid to the Wastewater Branch Risk Register (bi-monthly meetings) yet the outflow from WWTW failed dramatically over years, with no action.
- c. Reference to a Wastewater Risk Abatement Plan (W2RAP) – “W2RAP has been produced for each sewer catchment and associated WwTW. These W2RAPs are maintained and updated on an annual basis, and this involves the Reticulation Branch (sewer network and pump stations), the Wastewater Branch (WwTW) and the Scientific Services Branch.” – why has this abatement plan failed?

8. The sector plan is highlighted on page 5:

- a. Sector plan is based on audited information as at 30 June 2021.
- b. Sector plan “integrates technical planning with social, institutional, financial and environmental planning”
- c. Sector plan “aligns the capital expenditure with operational expenditure and **maintenance requirements**”

The Water Services Act places a duty on the City to produce Water Services Development Plan every 5 years and update annually. How could the City then fail so drastically in planning ahead for sewer treatment?

9. On page 6 there is an ongoing focus on CoCT as a water scarce city, seeking alternative forms of supply – no acknowledgement yet of sanitation capacity constraints.
10. Water strategy will “guide the manner in which we develop and deliver water and sanitation services” (Page 7).

Water strategy does not place sufficient emphasis on sanitation capacity constraints, and consequently, neither does the draft WSDP.

Other challenges” include:

- a. “lack of capacity of wastewater treatment”
- b. “increased pressure on sewer infrastructure due to existing settlement densification” as well as “growth and in-migration”

Inadequate maintenance of WWTWs in recent history / serviceability of these facilities not considered a key challenge?

11. On Page 8 of the WSDP adequate maintenance of WWTWs is not listed as a key challenge.
12. Positive that the draft WSDP acknowledges (page 8) that “having sufficient qualified staff to do the work is becoming a challenge and will have to be addressed”. But no strategies are offered to address this challenge.
13. On page 9 it is stated “All formal areas are adequately provided for with water and sanitation services” but new development has led to “demand exceeding the installed capacity” – in formal areas this is “fully planned for in advance”. Cannot agree.
14. Values (page 10) – a very important part of the document. But the experience of:
 - Day Zero
 - Current lack of sewerage treatment capacity
 - Lack of potable water in so many areas
 - Regular pipe bursts in the older areas
 - Lack of accessibility of senior officials

has proven that these are empty words.

15. Transitional plan programmes, 2021 – 2030 (page 10). “Upgrading water & sanitation in informal settlements (Commitment 1)”
 - What about formal areas?
 - What about maintenance?
16. Focus Areas (page 10). Again, the reality is that the department fails in many of those areas.
17. Remaining sewerage not connected to municipal system will be eradicated “as these residents are absorbed into new housing developments” – is this a realistic expectation noting existing capacity constraints? (page 19).
18. Page 24:
 - a. “To ensure long term sustainability, Water and Sanitation Services continually updates its Integrated Master Plan” to “balance demand and capacity” and “align with the City’s spatial planning and IDP strategies”
 - b. In line with IDP focus areas, the WSDP will “Focus on maintaining and replacing aging existing infrastructure” – **first acknowledgment of this challenge** – and “Promote efforts to densify the city by reviewing and upgrading infrastructure to accommodate higher residential density”

- c. Alignment with City's spatial Planning – not true. **There is no wastewater treatment capacity available for new developments.**

19. Budget is not clear (page 25). Where does WWTW's fit in. What is the source of the Annual Maintenance Norm applied here?

Table 9: maintenance budget is for normal annual maintenance – what about backlog?

20. "Status of All Water and Sanitation Infrastructure" is a subheading (page 26) – but the status of sanitation is barely mentioned.

21. City WSD first in-house master plan (2019) for the development and upgrading of infrastructure to ensure capacity based on Spatial Planning Scenarios with a 20-year development horizon (page 26). "Current master plan update under way that is planned to be completed by March 2022 based on a new 2040 Land-use plan". Master plan followed by "conceptual design of new infrastructure required to meet the demand, making up the Master Plan" – no data in this regard. The 2011 plan failed. How can we be convinced this one will be better?

"Water and sanitation infrastructure that is currently constrained has been identified and projects have been triggered to assist with alleviating the constraints" – what constraints identified? What infrastructure is planned?

22. "Change in legislation which no longer allows the disposal of wet waste, has accelerated the need to establish three regional plants to process sludge from wastewater plants (Bio-Beneficiation)" (page 27) – this legislation was known and planned for many years!

23. Budget for water and sewer pipe replacement discussed (page 28) – what about WWTWs?

24. "Underinvestment in wastewater treatment can take up to a decade or more to manifest, and another decade or more to remedy. Hence the importance of project pipelines is to identify required infrastructure upgrades, estimate the financial requirements (CAPEX, OPEX, etc.), understand when each individual project would be needed and thereby have a proactive plan in place to prevent pollution to the receiving environment, etc. (page 32)"

25. A lot of attention is paid to the Wastewater Branch risk register (bi-monthly meetings, page 35) yet the outflow standards from WWTW failed dramatically over years, with no action.

26. Reference to a Wastewater Risk Abatement Plan (W2RAP) – "W2RAP has been produced for each sewer catchment and associated WwTW. These W2RAPs are maintained and updated on an annual basis, and this involves the Reticulation Branch (sewer network and pump stations), the Wastewater Branch (WwTW) and the Scientific Services Branch." Page 35.

27. "A number of the Water Treatment works are 40+ years old and require sufficient downtime for periods of prolonged maintenance and refurbishment. It is proposed that new infrastructure be planned and implemented to allow any of the WTWs operated by the City to be able to go down for extended maintenance (1 month +)." Page 42.

Where are the plans?

Problems with specific WTWs are listed. Specific plans to the water supply system are there – following Day Zero. This (scant) detail is lacking for WWTWs.

28. Table 15 (page 46) is a high-level summary, compare with P.48. Page 48 indicates a number of failures, so a summary page for potable water is unacceptable.

29. Only 10 out of 25 WWTW plants comply (page 48). How can this be allowed?

30. Why were the Blue Drop and Green Drop programmes (page 49) stopped?

31. The Plan essentially blames DWS for shifting the goal post regarding discharge quality requirements, and not strained capacity of these WWTWs (page 49) (which is undoubtedly a contributing factor). Would be useful if quality trends for each facility were provided to gauge performance over time.

"The upgrading and capacity extension projects for the WWTWs will be dominating the budget over the next 3- 5 years as many of the upgrades have already commenced."

List upgrades, timeframes, etc.

Noting capacity constraints, and that upgrades take between 4 and 8 years, suggests that upgrading and capacity extension projects for the WWTWs will dominate budget for a lot longer than 3-5 years.

32. The bulk of these challenges (page 51) are in-house and under the control of management.
33. Table 17 (page 55) indicates planned decline in expenditure for bulk services: wastewater – all others increasing planned revenue, except for scientific services, auxiliary services and customer services.
34. Page 62: 61% informal, 34% of formal and 41% of business customers not unsatisfied with sewage and sanitation services – stated as a positive "more than half formal and business customers satisfied" ?
35. The latest Water and Sewer Master Plans (page 63), which are available on request for the City of Cape Town Metro, are as follows:
 - Water Master Plan, City of Cape Town, 2017/2018 financial year
 - Sewer Master Plan, City of Cape Town, 2017/2018 financial year

Why not produced for 18/19, 19/20 and 20/21 ?

36. The purpose, system and roll out of the EPWP is not to run technically complicated water services. It is a social plan for job creation at salary levels below the minimum. Leave that for the social services, not to run this important service (page 65).
37. Page 66:
 - a. "One of the main aims of all spheres of government is to encourage investment in an urban area for economic growth, which in turn results in job creation, poverty alleviation and ultimately prosperity." (page 66).
 - b. "Underinvestment in wastewater treatment can take up to a decade or more to manifest, and another decade or more to remedy. Hence the importance of master planning, to identify required infrastructure upgrades, estimate the financial requirements."
 - c. "Unfortunately, wastewater treatment has historically been underinvested." This is the fault of management and they must accept the blame ! To blame it on the residents "*residents generally do not understand the systems and process,*" is beyond words!!

40. Four items overdue ! (page 69):

Also unclear how long projects will take to come online (in the context of scant information regarding the severity of the capacity constraints) – for example, expansion of the Macassar WwTW "required by 2022", and status "Appointment of professional services provider" – design and EIA process will take 2 years, construction another 2? Similar story for "overdue" Fisantekraal

Refurbishments and upgrades planned are listed – we need to see the demand vs service level for each WWTW – in four+ years when these upgrades come online what will the situation look like.

38. Page 70:

"Current capacity upgrades are being implemented at WwTW that are at or over capacity and which serve catchments with the highest growth rates" – hints at the severity of the problem, and also that it is not only DWS shifting goal posts that prevents meeting quality conditions

"Capacity expansions for Melkbos, Mitchells Plain, Scottsdene and Wesfleur Domestic need to be scheduled, to avoid capacity constraints in future."

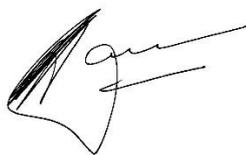
Need data to evaluate how soon in the future – should these not be planned and budgeted for now (noting it takes between 4 and 8 years to implement, according to the WSDP).

Similarly for water supply infrastructure – upgrades listed, but without a better understanding of corresponding demand, and anticipated growth in demand, hard to gauge adequacy of the WSDP in this regard.

39. Statement on page 78; “In this new 5 year term WSDP majority of the budget are for the Wastewater Branch” – this does not seem to align with budget in Table 17, Table 26 or Table 27
40. To spend R6 548 579 (m?) on EPWP projects (page 90). Does not make sense. See note 36 on page 65 above.
41. Only 12 WWTW's managed to comply with 95% (page 90) - totally unacceptable.
42. Capital spend of 90% (page 91) totally unacceptable.

Should you wish to discuss this further, please do not hesitate to contact me on 021 979 4984.

Kind regards

A handwritten signature in black ink, appearing to read 'Alwyn Laubscher', with a stylized flourish at the end.

ALWYN LAUBSCHER
WCPDF Secretary

