



## REPORT TO SUBCOUNCIL

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1. **ITEM NUMBER :** *To be inserted by secretariat*

2. **SUBJECT**  
[LSU - P2820 ]

STORMWATER MANAGEMENT : WINTER PREPARATION MAINTENANCE  
PLAN AND PROGRESS REPORT

### **ONDERWERP**

INSTANDHOUDINGSPLAN EN VORDERINGSVERSLAG OOR  
WINTERVOORBEREIDING

### **ISIHLOKO**

ULAWULO LWAMANZI ESITSHI: ISICWANGCISO ESINGOKULUNGISELELA  
UBUSIKA NENGXELO ENGENKQUBELA

3. **PURPOSE**

To inform the Subcouncil 10 on the progress of the Stormwater Winter Preparation Plan in the area covered by the Urban Mobility Directorate - Roads Infrastructure Management Department, **District Seven (7)**.

4. **FOR DECISION BY**

This report is submitted for information and noting.

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5. **EXECUTIVE SUMMARY**

The Stormwater Winter Preparation Plan is implemented annually to limit potential flooding and to maintain the functionality of road stormwater drainage systems.

This report deals with the stormwater maintenance undertaken by the Urban Mobility Directorate - Roads Infrastructure Management Department, District Seven (7).

The district office covers the area south of Govan Mbeki Road, west of the N2 Free Way, north of Baden Powell Drive and east of Weltevreden Road / Duinefotein Road as well as Old Crossroads, portion east of New Eisleben up to the N2 Free Way.

It should be noted that the maintenance of bulk stormwater systems like rivers, canals, etc. is managed by the Catchment, Stormwater and River Management section within the Water and Waste Directorate as from the 1 March 2020. The maintenance of these systems is therefore not discussed in this report.

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## **6. RECOMMENDATIONS**

It is recommended that this report be submitted for information and noting by Subcouncil 10.

### **AANBEVELINGS**

Daar word aanbeveel dat hierdie verslag ter inligting en kennisname voorgelê word aan subraad 10.

### **IZINDULULO**

Kundululwe ukuba le ngxelo mayingeniswe ukuze kufunyanwe ulwazi nokuqwalaselwa liBhungana10.

## **7. DISCUSSION/CONTENTS**

Due to the climate adaptation approach the RIM department has taken, the winter preparation program have started much earlier.

All tenders for the mechanical and labour intensive methods are in place and the mechanical tenders that expire in June 2023, has replacements that needs to be loaded into SAP.

From the period July 2022 to date, we have continued our cleaning operations as to eradicate any backlog that existed. Our greatest challenge remains the dumping of material into the stormwater infrastructure that leads to blockages. Throughout the year, we encourage communities not to dump into the stormwater infrastructure.

The RIM depots will respond to all emergencies that arise during rain events, and if needed, will activate the service providers to assist.

All RIM depots will file a Flood Incident report with the Stormwater Operation section for further analysis. This will guide our action and interventions.

The Head: Special Operation- Stormwater section is coordinating a Winter Preparation team within RIM, consisting off all RIM role-players. This seeks to standardise our approach to winter preparation and our initiatives.

Coordination will continue between RIM and other stakeholder departments to achieve our goal for winter preparation.

### **Urban Mobility: Road Infrastructure Management Winter Preparation Plan 2023**

The City of Cape Town normally get its peak rainfall during May and September. This period often shifts and as part of our climate adaptation approach, there is a need to start with winter preparation earlier to accommodate for this shift.

The Road Infrastructure Management branch is responsible for the cleaning and maintenance of the pipelines, culverts and associated structures. The rivers, canals and major ponds are cleaned and maintained by the Catchment, Stormwater and River management of the Water and Sanitation department.

The winter preparation plan consist of three sections, being:

1. Proactive cleaning of infrastructure to prevent flooding as far as possible,
2. Reactive cleaning through the emergency complaints handling and unblocking of stormwater infrastructure during times of flooding.
3. Coordination of works and analysis of storm event in conjunction with the CSRM branch.

#### **Proactive Cleaning**

The critical part of our proactive cleaning program, is the coordination between activities that has a knock on effect on the downstream operation in the stormwater network. The start of the system, the gullies, needs to be prioritised first which follows through to the connections and then the pipes. This allows for dislodged debris to be pushed to the bottom of the system that eventually land up in the rivers and canals where it is removed by the CSRM branch. This approach eliminates reworking and is more cost effective and efficient.

#### **Gully Cleaning**

This cleaning activity is on an ongoing basis until the end of the financial year.

#### **Pipe Cleaning**

Pipe cleaning, due to its nature, is generally cleaned by mechanical means. This is done via a high pressure jet machine or a combination jet machine / vacuum unit. This is also the most effective way to unblock pipes of all sizes, however, as part of our preparation plan, pipes are cleaned with a duct cleaning machine (DC machine) or bucket machine.

The mechanism for this activity is our term tender: Maintenance of Stormwater Infrastructure by Mechanical Methods, 201S/2020/21 and 120S/2019/20, which

expires on 30 June 2023. The replacement tender, 240S/2021/22 is in the finalising of award stage with no appeals.

### **Pond Cleaning**

Ponds are programmed to be cleaned once a year for hydraulic functionality and if budget allows, once for aesthetics. With the amount of dumping in water courses, this has become a constant request and is very taxing on our budget.

Currently we are utilising labour intensive methods to clean our ponds as this is the best method to access some ponds, especially after the CoViD-19 land invasions.

We have a mechanism to execute this type of work through our term tender for the maintenance of stormwater infrastructure by labour intensive methods, 075S/2019/20, which expires on 2026-06-30.

### **Reactive Cleaning**

Once complaints are received from the public, or other stakeholder, the RIM Depots will respond to these for immediate action, bearing in mind that during a rain event, the severity of the flood incident takes preference. During winter months, every depot has a standby crew ready for emergencies and when a warning is received from the South African Weather services, additional teams will be added to the standby crews.

Every depot is equipped with the necessary tools and should a capacity constraint arise, we have the option of calling upon our service providers to assist in terms of the tender conditions.

During the rainy period, the District will open a purchase order for a predetermined amount of hours for service providers to assist seamless during emergencies.

We are currently reworking our Tetra Radio mapping to improve the communication chain and talk groups within the depots. This will assist in more efficient communication during rain events.

After a rain event, all depots will file a Flood incident report (form attached) with the Head Special Operation – Stormwater section, for analysis purposes and to inform future analysis. This report will also inform what action will be need post the rain event.

### **High risk areas**

High-risk areas are prone to flooding and includes the following:

- a) Flat areas where water is more likely to build up.
- b) Low lying areas where no overland stormwater escape routes exist.
- c) Where houses / properties are lower than road level. Typically where driveways have been incorrectly constructed allowing water to enter the

property.

d) Where internal stormwater from properties are not drained towards roads and / or municipal stormwater system.

e) Where systems are abused through illegal dumping causing blockages in the systems.

f) Pond inlet/outlet structures blocked by informal shacks/dwellings.

## 7.2. **Progress summary**

A summary of each activity is listed with completed and planned / scheduled maintenance.

Risks of delays on planned maintenance are contributed by

a) Delays experienced through EPWP Local Labour verification for cleaning of catch pits and ponds.

b) Local Labour employed but then leave work after a day or two, affecting daily production. New names would then be requested to fill teams.

c) Ongoing threats, intimidation, robberies, etc. which leads to stoppages and delays.

d) Decanting of grey water and other solids which is a health risk to labour force cleaning catch pits and ponds?

## 7.3. **Constitutional and Policy Implications**

*None*

## 7.4. **Sustainability implications**

Does the activity in this report have any sustainability implications for the City?
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No <input checked="" type="checkbox"/>
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Yes <input type="checkbox"/>
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## 7.5. **Legal Implications**

*None*

## 7.6. **Staff Implications**

Does your report impact on staff resources or result in any additional staffing resources being required?

No ☒

Yes ☐




### 7.7. Other Services Consulted

None

### 7.8. POPIA Compliance

It is confirmed that this report has been checked and considered for POPIA Compliance.

### FOR FURTHER DETAILS CONTACT :

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<b>FILE REF</b>	SCs 2023/02
<b>SIGNATURE : HEAD MORNE DE WET</b>	 20 / 02 / 2023
<b>SIGNATURE : AREA MANAGER MR ODWA GABUZA</b>	 20/02/2023
<b>SIGNATURE : DIRECTOR MR HILTON SCHOLTZ</b>	 21/02/2023
<b>SIGNATURE: EXECUTIVE DIRECTOR : URBAN MOBILITY MRS DALENE CAMPBELL</b>	

