CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

REPORT TO SUBCOUNCIL

SUBCOUNCILS 3, 4, 5, 6 & 15

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1. ITEM NUMBER: 06SUB11/05/23

2. SUBJECT

REPORT ON WINTER PREPARATION COVERING SUBCOUNCILS 3, 4, 5, 6 AND 15

ONDERWERP:

VERSLAG OOR WINTERVOORBEREIDING WAT SUBRAAD 3, 4, 5, 6 EN 15 DEK

ISIHLOKO:

INGXELO ENGOKULUNGISELELA UBUSIKA EJOLISWE KUMABHUNGANA 3, 4, 5, 6 NO15

3. PURPOSE

The purpose of the Report is to inform Subcouncil of the Winter Readiness Program within Urban Mobility: Road Infrastructure Management (RIM), District 3 Service area, covering their constituency.

4. FOR DECISION BY

Delegation: Part 24: Subcouncils

General - 25(1)(1)
To assess the performance of service delivery generally within their area of jurisdiction (outcome monitoring)

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5. EXECUTIVE SUMMARY

Due to the climate adaptation approach the RIM department has taken, the winter preparation program will be started much earlier and on a continuous basis.

For the proactive cleaning initiative, the department has employed 160 EPWP staff, until the end of the financial year, to ensure a longer cleaning cycle is undertaken for hand cleaning.
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 2021 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 standardize our approach to winter preparation and our initiatives.
Coordination will continue between RIM and other stakeholder departments to achieve our goal for winter preparation.
We are currently looking at the most flood prone areas in the city, and the Elsieskraal Stormwater Management Plan was recently completed. Programs for recommended interventions is being assessed and will serve on the agenda of the relevant sub-councils as it is being rolled out, with copies being made available to the members of this PC.

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 City's stormwater system consist of approximately 7 500 kilometers of pipelines and culverts (underground conduits), 180 000 catchpits, 85 000 manholes, 850 detention ponds and 1 200 kilometers of maintained rivers, canals and open channels.

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 consists 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 events 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 prioritized 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 is an ongoing activity, for which the department has employed 160 Expanded Public Works Program staff, consisting of 17 EPWP Supervisors, 14 EPWP Clerks and 129 EPWP workers. These teams are also utilized to clean ponds, where there is limited pollution. 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 finalizing 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 utilizing 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 stakeholders, 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 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.

Coordination & Analysis
The Department has established a Winter Preparation task team that is led by the Head: Special Operation- Stormwater section. These team review preparation activities on a continuous basis to endure that plans are implemented. This also becomes a community of best practice where different areas can learn from one another.
The department also co-chairs the Disaster Management Flood Task team set up to better coordinate between departments on their winter preparation plans.

With the changes of the past few years that was made to the Customer Relations Management within SAP, some data was lost to allow us to analyze our efforts.
The department works closely with CSRM on the rainfall data to better respond to rain events and to utilize this data to better respond and plan in the future.

Other Initiatives
Areas that is prone to flooding and where analysis has shown risk was identified for high level stormwater catchment studies. One of these areas is the Elsieskraal catchment area, where the Stormwater Management Plan was recently completed. A consultant was appointed to do a final design of the Ravensmead Flood Mitigation recommendation, where other recommendations are being assessed by the District Office. The Department is currently in the process of screening projects and sourcing budget to implement accordingly.

Reporting to Sub-Councils
The District has now agreed on a standard template to report their program to both this PC and Sub-Councils. Once all eight district plans are completed, it will be served at the relevant sub-councils and a copy will be made available to the PC members.
This standardized program template allows for the base program to be inserted in one line, and an additional line will track the progress of the implementation.

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6. RECOMMENDATIONS

a) That the Winter Preparation Report to Subcouncil 3, 4, 5, 6 and 15 BE NOTED.

AANBEVELINGS:

a) Dat DAAR KENNIS GENEEM WORD van die wintervoorbereidingsverslag aan subraad 3, 4, 5, 6 en 15.

IZINDULULO:

a) Ukuba MAKUQWALASELWE ingxelo engokulungela ubusika eya kumaBhungana 3, 4, 5, 6 no15.

7. DISCUSSION/CONTENTS

- The service area includes Subcouncil 3, Wards 1 & 5, Subcouncil 4, Wards 25, 26, 27, 28 & 42, Subcouncil 5, Wards 12, 13, 20, 22, 24 & 106, Subcouncil 6, Wards 2, 3, 9 & 10 and Subcouncil 15, Wards 31 & 50.
- Urban Mobility: Roads Infrastructure Management (RIM) - District 3 performs all their operational and maintenance functions through the services of 4 internal depots: Sacks - Bellville, Arnold Wilhelm - Parow and Socony - Goodwood Depots, with Delft Depot serving partially within the District, covering Delft for RIM District 3 and the remainder of their service area falling within RIM District 4 (Somerset West). In addition, we make use of contracted services, appointed via relevant term tenders.
- The services under RIMs control for this area includes approximately 1,850 km road length, 1,145 km stormwater pipes, 18,540 stormwater manholes, 26,780 stormwater catchpits and 141 stormwater ponds.
- The pipe system primarily caters for the minor storm durations of 1:2 to 1:5 years and the roads, ponds, canals and rivers cater for the major storm durations up to 1:50 year events.
- <u>High risk areas</u>, prone to flooding includes the following:
    - Flat areas
    - Low lying areas where no overland escape routes exist (trapped low points)
    - Where houses / properties are lower than road level (non-compliant in terms of building regulations)
    - Where internal stormwater from properties are not drained towards roads and/or municipal system
    - Where systems are abused through illegal dumping
    - Inlet / outlet structures of ponds and canals that ensure the operation of the system

- <u>Implementation, Progress and Constraints includes</u>:
    - Stormwater Catchpit cleaning
        - An annual program is implemented throughout the year by the District, making use of contracted services through available term tenders.
        - All efforts are done to remain on schedule and to ensure that we meet the roll-out targets prior to the start of the winter season.
    - Pond cleaning

- The annual program is implemented throughout year by the District, making use of contracted services through available term tenders.
- Ponds prone for flooding due to system abuse are done at least twice a year (budget dependent) and just before Winter and/or expected high rainfall event.
- All efforts are done to remain on schedule and to ensure that we meet the roll-out targets prior to the start of the winter season.

- Pipe Cleaning
  - Done on ad-hoc basis where blockages are reported, this via the Mechanical Cleaning Tender.

7.1. Legal Implications

None

7.2. Staff Implications

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

No ☒

Yes ☐

7.3. Other Services Consulted

None

ANNEXURES

Annexure A – Winter Preparation Program for RIM, District 3.

FOR FURTHER DETAIL CONTACT:

Johan Snyman Digitally signed by Johan Snyman Date: 2023.03.29 14:49:41 +02'00'

NAME	*Jeanine du Preez*
CONTACT NUMBERS	*082 440 1118*
E-MAIL ADDRESS	*Jeanine.dupreez@capetown.gov.za*
DIRECTORATE	*Urban Mobility*
FILE REF NO	

Jeanine du Preez Digitally signed by Jeanine du Preez Date: 2023.03.29 11:36:16 +02'00'

Digitally signed by Hilton Scholtz
Date: 2023.03.30 08:39:01 +02'00'

Director
Hilton Scholtz

Dalene Campbell

Digitally signed by Dalene Campbell
Date: 2023.04.04 12:38:02 +02'00'

Comment:

EXECUTIVE DIRECTOR
Dalene Campbell

NAME

DATE