



**Western Cape  
Government**

Environmental Affairs and  
Development Planning

**BETTER TOGETHER.**

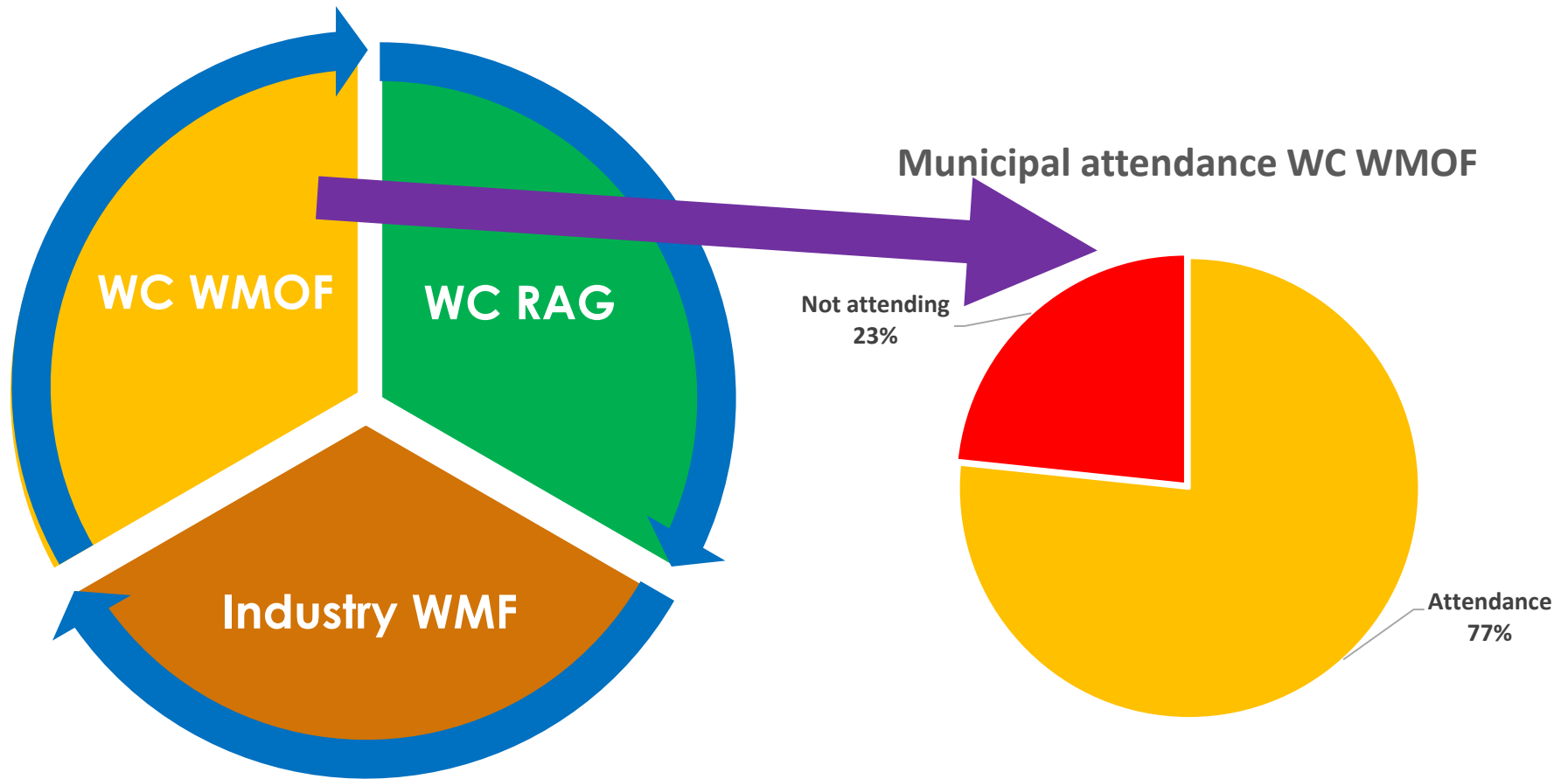
## **WASTE MANAGEMENT IN WC & COVID-19 WASTE MANAGEMENT RESPONSE**

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Dept of Environmental Affairs & Development Planning

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*'Waste is just a  
resource that's  
in the wrong  
place.'*

# Effective functioning waste governance platforms



# Municipal Integrated Waste Management Plans

All 30 muns have 1<sup>st</sup> & 2<sup>nd</sup>  
generation Plans

23 of 30 municipalities  
developed 3<sup>rd</sup> generation  
Plans

Improvement in quality of municipal Plans

Ave assessment  
score of 3<sup>rd</sup> Gen.  
Plans - 77%

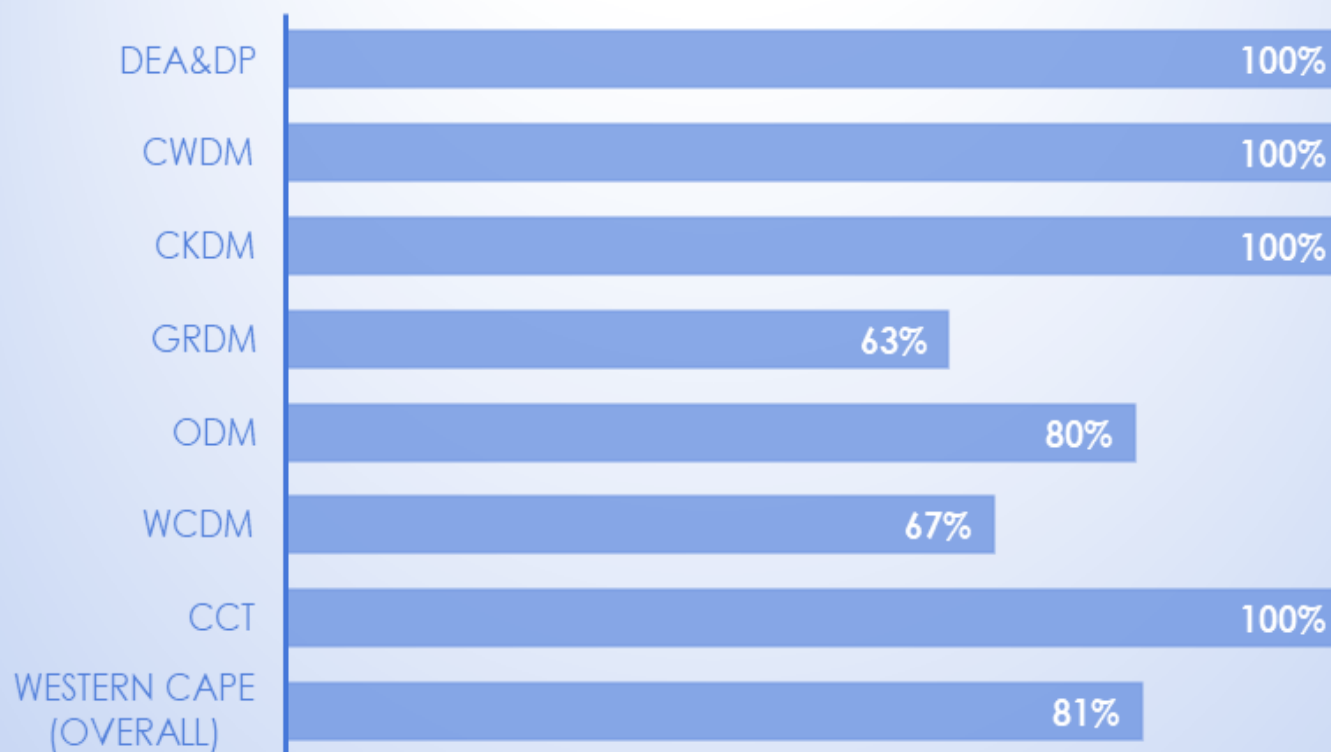
Lowest  
assessment  
score of 3<sup>rd</sup> Gen.  
Plans - 30 %

Highest  
assessment  
score of 3<sup>rd</sup> Gen.  
Plans - 98%

# Designation of Waste Management Officers

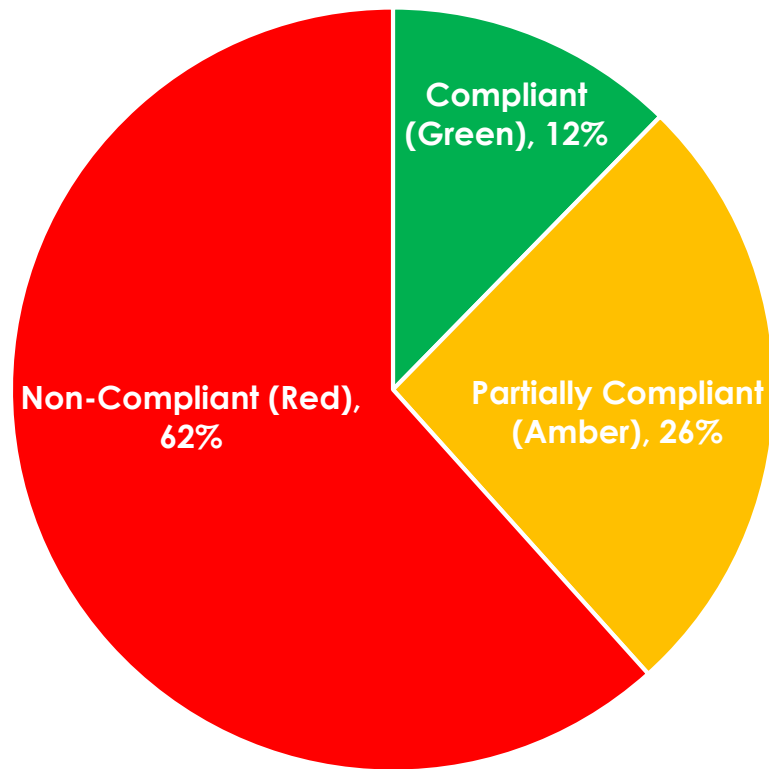
Status of designated Waste Management Officers (ito Sect 10 of NEMWA)

## Designated Waste Management Officers Per Area



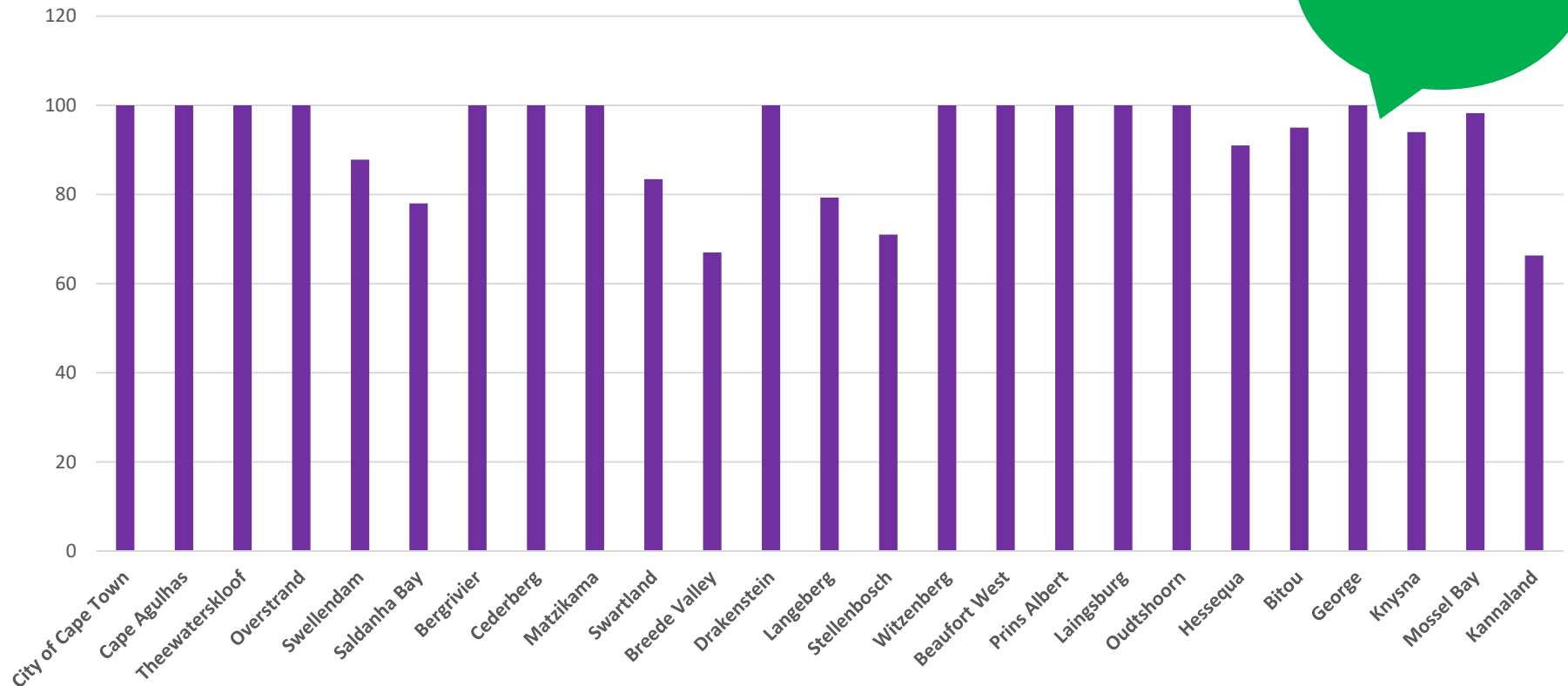
# WC Waste Management Facilities Compliance Status

2018 Compliance Status of Waste Management Facilities (72 authorities audits)

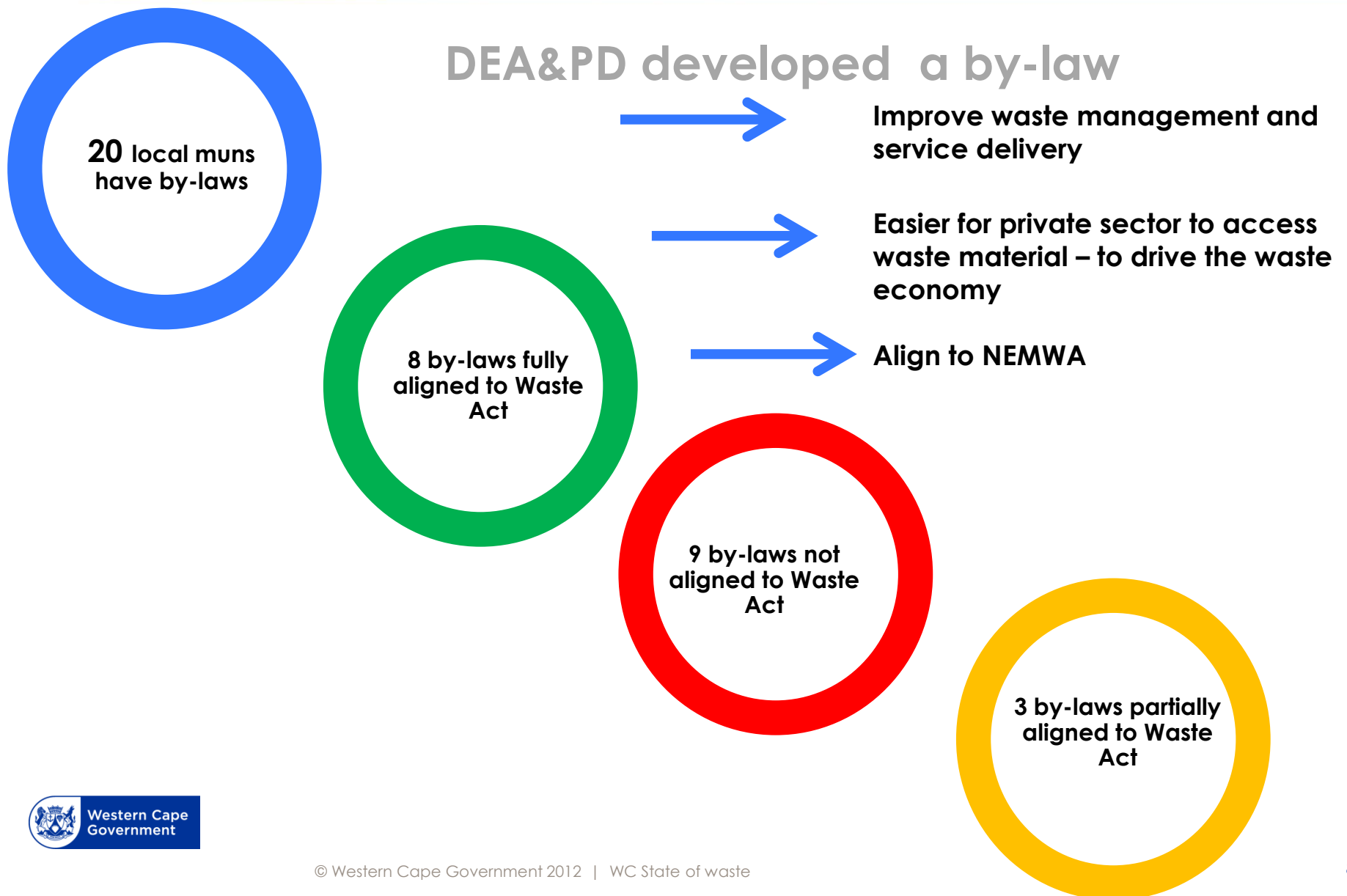


# State of waste management in WC

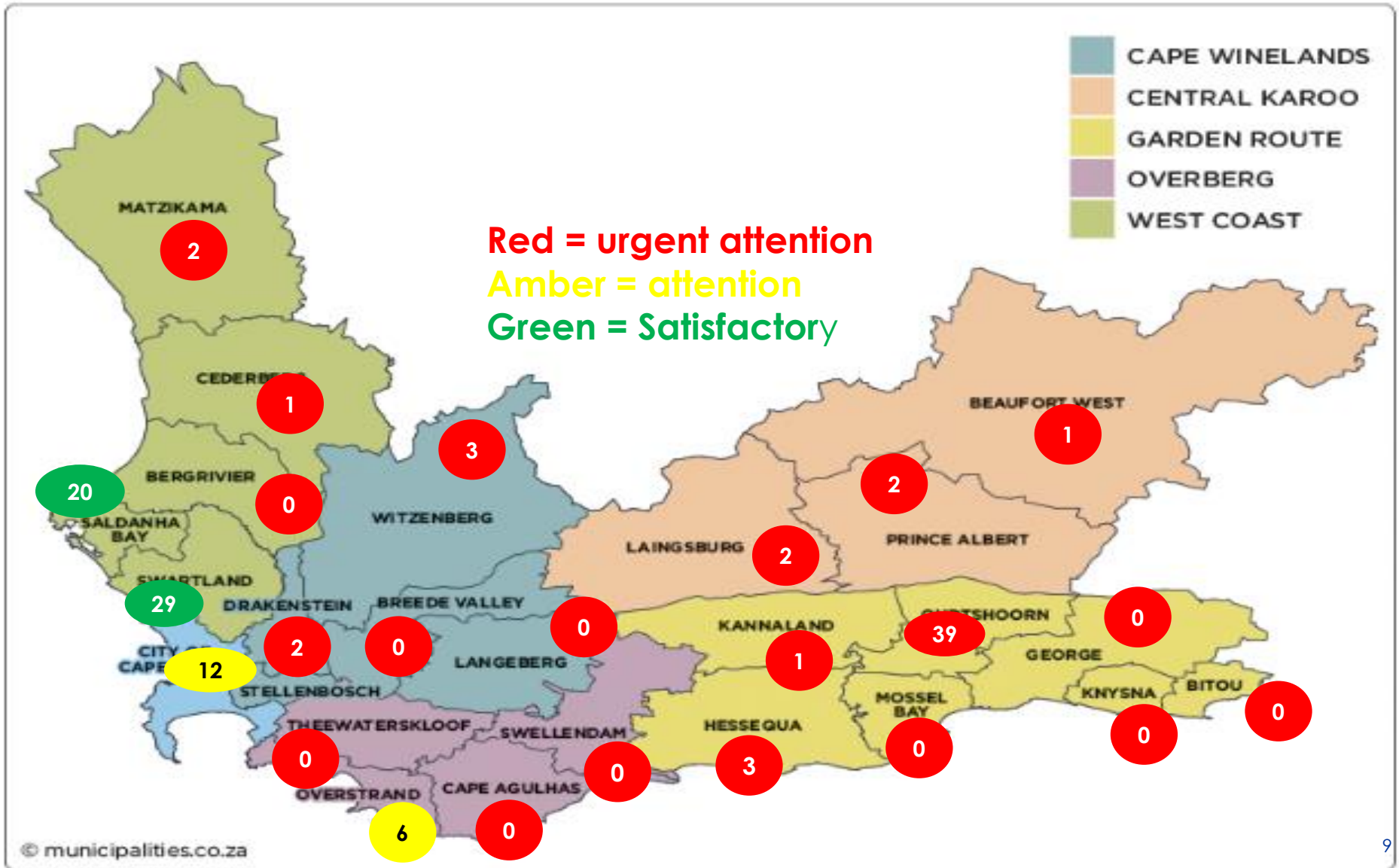
Western Cape Level of Basic Refuse removal (%)



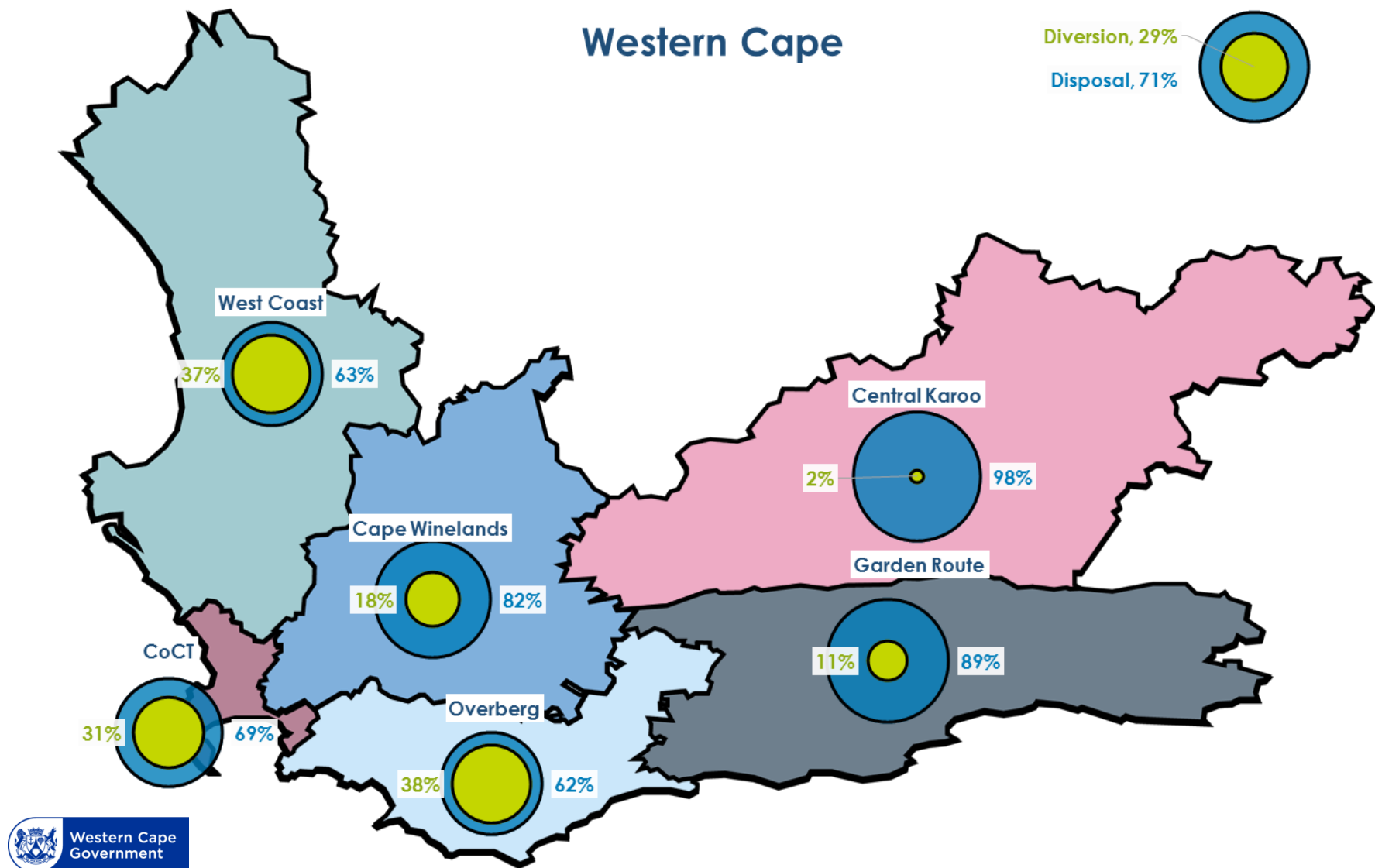
# State of municipal waste management by-laws in WC



# WC Availability of landfill airspace



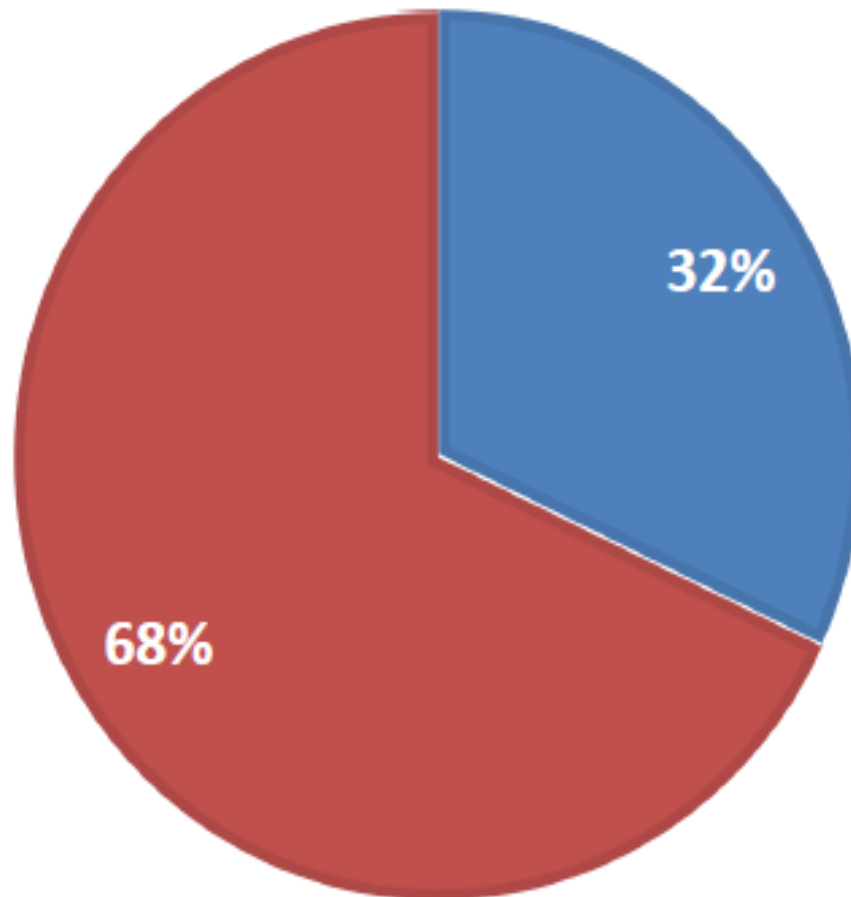
# Waste diversion in the WC



# Municipalities with S@S

## SEPARATION AT SOURCE

■ No ■ Yes



# WCG response to landfill airspace challenges

## Integrated approach

### ■ Systems approach:

- landfill not default position anymore; and
- planning not for communities but with communities.

### ■ WCG Policy to promote regional cooperation

### ■ Stimulate waste economy (secondary resource economy) & job creation

### ■ Reduce environmental impacts of waste management

- Enhance compliance monitoring - follow a zero tolerance approach (if IGR fails) to improve compliance.

### ■ Promote uptake from alternative waste treatment methodology.



# WCG response to landfill airspace challenges

## ● Aggressive waste diversion, recover, reuse, repurposing, recycling and beneficiation of waste material:

- Focus on waste streams such as organic waste and construction & demolition waste - diversion targets for organic waste - 50% diversion of organic waste from landfill by 2022 and Landfill ban of organic waste to landfill by 2027.
- **Liquid waste prohibition (23 Aug. 2019).**
- Focus on separation at source.



## ● Build resilience into municipal waste management service



# New waste legislation & policy

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- Draft national norms and standards for composting of organic waste
- Draft national norms and standards for organic waste treatment
- Amendments to plastic bag regulation
- Repeal of Section 28 notices – industry waste management plans
- Use of EPR sections on Act – Sect 18
- CSIR to draft waste tyre plan – Sect 29(1)

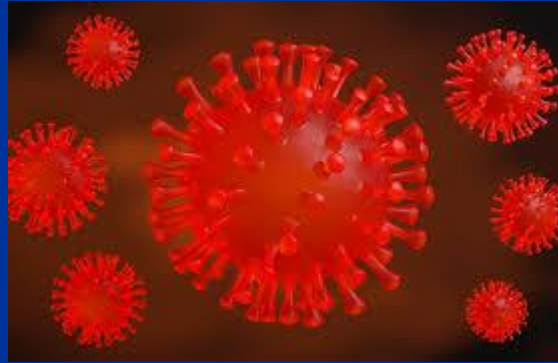
# New waste legislation & policy

## ● NEM:LA 4 Bill – propose several changes in Waste Act namely:

- Removal Schedule 3 and insertion in section 1 of the Act.
- Bill provides for textual amendments to the definition of “waste” so as to provide legal clarity on the interpretation and to prevent unintended consequences.
- Amendments regarding the Waste Management Bureau
- Amendments regarding contaminated land
- Amendments regarding waste management licensing
- Charging fees for variation of wmls
- Several amendments regarding regulation minerals and mining residue stockpiles

## ● National Waste Management Strategy

- Being taken through political processes



**Effective waste management is crucial to the management and containment of the spread of the Corona virus.**

# Waste Management – Risks & Challenges Experienced

*Waste workers are second in line after the health workers in the defense against combating the COVID-19 pandemic*

## ● **Dept.'s internal capacity to work from home:**

- Designation of staff as essential workers
- Setting up of infrastructure and systems
- Communication and coordination

## ● **Guidance on waste management practices during the pandemic:**

- Protocols and guidelines
- Protection of waste workers is crucial
- Identification of location of COVID-19 cases/hotspots

## ● **Available treatment and disposal capacity**

## ● **Assistance to waste pickers during pandemic**



# Guidance: Waste Management practices during pandemic

## *Development of Waste Management Protocols and Guideline*

### ● **Protocols & guidelines**

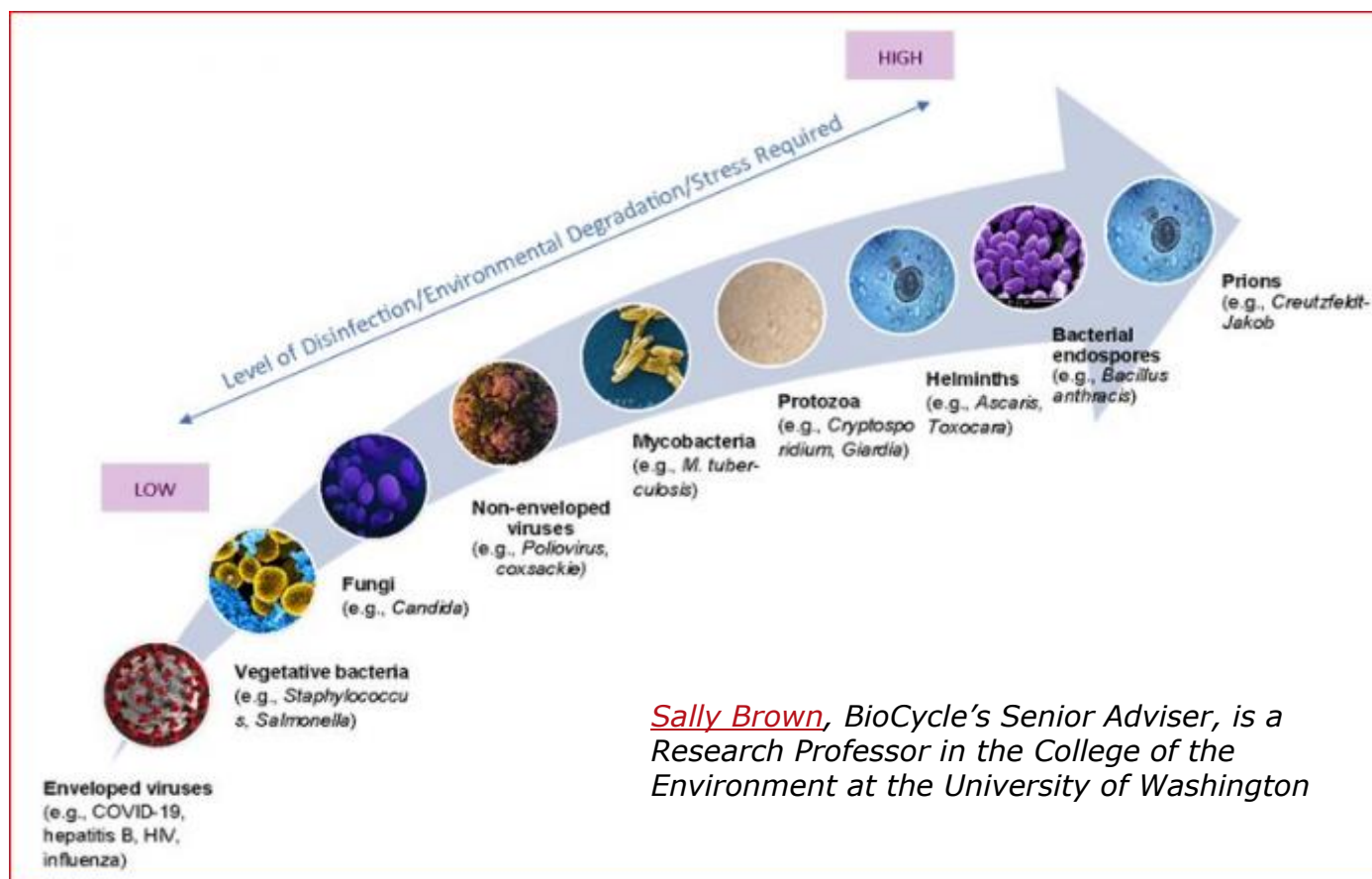
- Protocol to deal with waste from households with COVID-19 cases;
- Guideline for the Management of Waste Generated at Quarantine and Isolation Field Facilities; and
- Protocol to deal with managing of PPE waste from businesses and institutions.

### ● **Process to develop protocols and guidelines**

- Liaised provincially, nationally and globally:
  - Learn from other countries, institutions and associations.
- Followed a risk-based approach to identify and quantify the infection risk as well as the cost and practicality of different practices;
- Developed protocols & guideline through a consultative process with municipalities and PDoH;











# Guidance: Waste Management practices during pandemic

- SARS-CoV-2 is a member of a general category of viruses that have the special code wrapped up in a lipid layer – enveloped virus.
- Outside of your body, enveloped viruses, almost certainly including SARS-CoV-2, are frail and delicate things.



# Guidance: Waste Management practices during pandemic

## How long the new coronavirus can live on surfaces\*

SURFACE	LIFESPAN OF COVID-19
 Air	3 hours 
 Copper	4 hours 
 Cardboard	24 hours 
 Stainless Steel	2–3 days 
 Polypropylene plastic	3 days 

\*At 69.8 to 73.4°F (21 to 23 °C) and 40% relative humidity

Source: New England Journal of Medicine

BUSINESS INSIDER

# Coordination of Proper Waste Collection, Disposal & Treatment

## *Established Inter-governmental Waste Management Workstream*

### ● **Comprise of two sub-workstreams:**

- Weekly online meeting with Municipal Waste Managers; and
- Weekly online meeting with Environmental Health Practitioners from representative Metro, District Municipalities & Provincial Dept. of Health.

### ● **Functioning:**

- Coordination of waste management services;
- Deal with challenges;
- Sharing of best practices;
- Monitoring of waste management services to identify areas of intervention; and
- Provide technical support to municipalities.

### ● **Establishment of WhatsApp group:**

- To further improve coordination, sharing of information and to provide technical advice.

# Ensure health and safety measures for waste workers

## *Waste worker health and safety*

- Strict adherence to enhanced hygiene norms, including frequent change and cleaning of PPE.
- Provision of PPE such as gloves, masks and overalls is a must. Uniforms should be daily changed and cleaned.
- Social distancing practices should be applied at the headquarters, at meeting rooms as well as at changing rooms.
- Identify vulnerable staff (taking health, comorbidities and age in to consideration) - use the vulnerable staff not in the frontline.
- Direct contact (without gloves) with bins or bags should be avoided.
- Disinfectants and hand sanitizers must be available in each and every vehicle.
- Frequent hand-washing and increased cleaning in workers' facilities is a must.
- Sanitize and disinfect the driver's cab of vehicles destined for the collection of municipal waste after each work cycle.

# Western Cape Municipal Waste Workers

## *Waste management service during the pandemic*



# Assessment of Available Treatment & Disposal Capacity

## *Assessment of treatment and disposal capacity*

- WC has four licensed health care risk waste treatment plants:
  - 1 x autoclave;
  - 1 x electro thermal deactivation plant; and
  - 2 x incinerators.
- WC has 71 operational waste disposal facilities of which 1 is a high hazardous waste disposal facility.
- Facilities are monitored for compliance by Environmental Management Inspectors (EMIs).
- WC has currently enough treatment and disposal capacity and should the pandemic escalate, the WCG has identified other disposal and treatment options as a Plan B.



# COVID-19 Waste Pickers Support Programme

Waste pickers and informal SMME's recycling businesses were severely impacted by the sudden loss of income

## Phase 1

- DEFF initiative – R 785000
- 500 food vouchers - R 200 per voucher.
- Vouchers redeemed retailers .
- Sponsored by Coco Cola, Plastics SA and various PRO's.
- Provinces - IDs & cell phone numbers.
- Experienced various challenges.

## Phase 2

- DEFF initiative – R 58.7mil
- R 810 once off stipend
- Online system – similar to SASSA.
- System linked to Home Affairs.
- Paid by SOPA.
- Verification to be done be provs and approval by DEFF.
- Valid ID & Cellphone number.

## Phase 3

- DEFF initiative – R 15 mil
- Provision of PPE for waste pickers.
- Cloth mask, sanitiser and stronger gloves
- Verification to be done be provs and approval by DEFF.
- Valid ID & Cellphone number.

# Summary – Western Cape Waste Management Response(1)

## *Experience during pandemic*

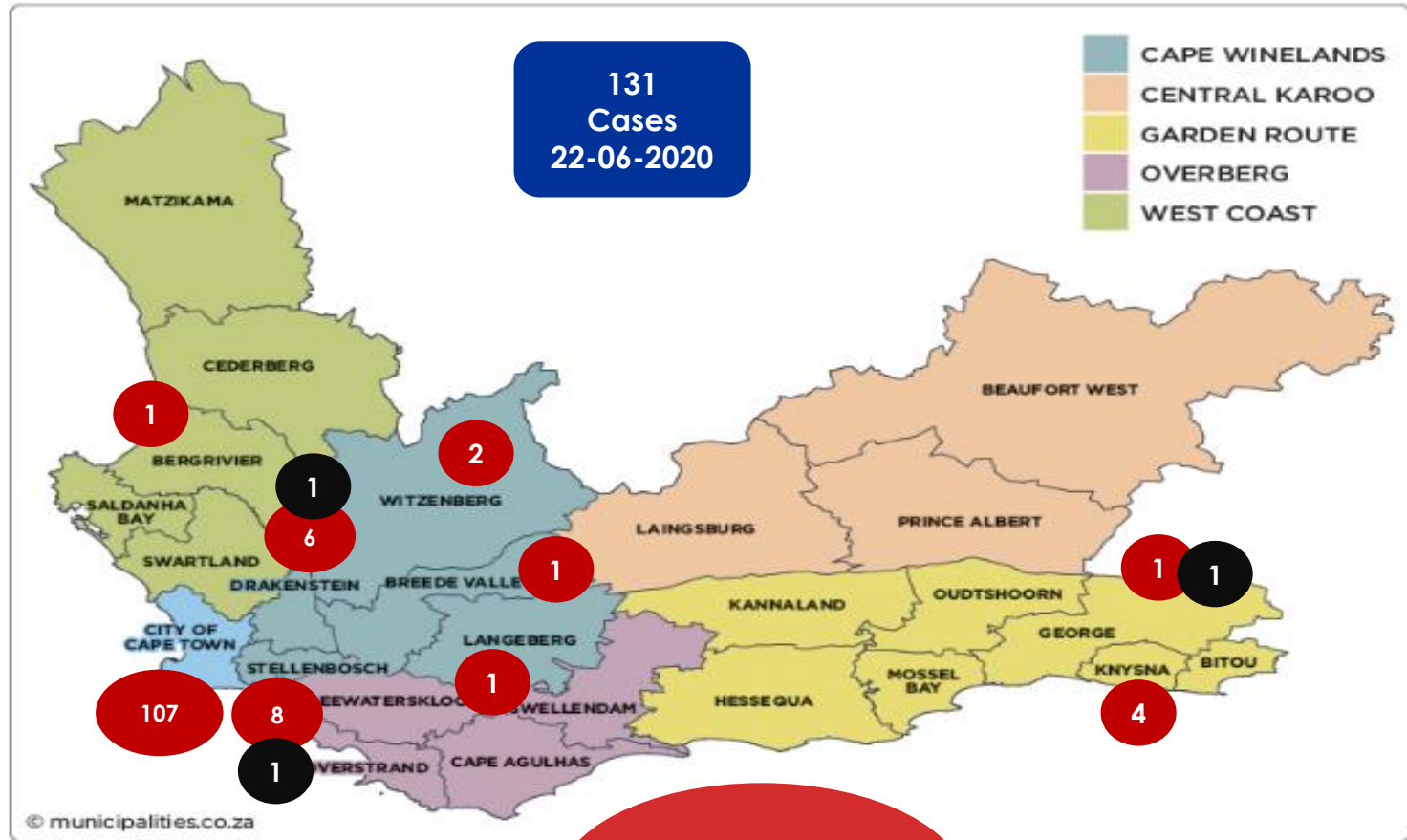
- Decline in general waste generated and disposed;
- Increase in illegal dumping;
- **Increase in health care risk waste generation, treatment and disposal;**

COVID-19 waste treated at authorised treatment facilities in kgs

Facility	March	April	May
BCL	63.9	5342.68	19347.81
Compass	5	5679.04	35274.74
Averda - George	0	1562.5	16660.04
<b>Total WC</b>	<b>68.9</b>	<b>12584.22</b>	<b>71282.59</b>
<b>Total for country</b>	<b>6174.79</b>	<b>101949.5</b>	<b>221297.5</b>

# Summary – Western Cape Waste Management response(2)

- Increase in infections of waste workers as well as deaths;



3 deaths of  
waste worker

● cases  
● deaths

# Municipal waste workers infected - survey

15:42 WhatsApp

docs.google.com

## Survey: COVID-19 infections among waste workers

The Western Cape Government: Waste Management Directorate seeks to gain a better understanding of the COVID-19 infections among waste workers operating throughout the province. To do this, we request all waste managers to complete the below survey, before 17:00 on Friday, 5 June 2020.

Note: Completion of this survey will be requested on a regular basis in order to track changes and updates.

\* Required

Name of municipality \*

Choose

Name of respondent (waste manager) \*

**56%** participation rate

## Results of survey

- Frontline waste workers
- Workers involved in disposal

# Summary – Western Cape Waste Management Response (3)

## *Experience during pandemic*

- Waste management services continued throughout the Western Cape;
- Western Cape has currently enough capacity during the pandemic to collect, treat and dispose of waste/health care risk waste:
  - Use of alternative waste treatment technology at temporary facilities – bring treatment cost down, relieve pressure on existing treatment facilities and reduce risk of spreading infection;
- Municipal waste workers were provided with appropriate PPE;
- Pandemic is having a severe economic impact on waste industry (private sector and municipalities), especially on the informal waste industry and waste pickers.

# Summary – Western Cape Waste Management Response (4)

## *Experience during pandemic*

### ● **Exploring using on site and alternative treatment:**

- Frictional Heat Treatment (FHT) technology for the processing of HCW.
  - process is based on heat generated by impact and friction of the waste.
  - residue obtained is sterilized, finely ground, dry and reduced in weight and volume.
- Benefits:
  - allows reducing of the facilities' costs for disposal;
  - improves the safety of the personnel;
  - reducing produced waste quantity;
  - reduces the environmental impact; and
  - reduce risks arising from the transport of infectious waste.

### ● **Waste minimisation programmes:**

- Awareness; and
- Organic waste beneficiation interventions.



# Contact Us



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