AIR QUALITY MONITORING AND REPORTING IN THE GAUTENG PROVINCE

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PRESENTATION OUTLINE

• Geographic setting of the Gauteng province
• Ambient Air Quality Monitoring Network in Gauteng.
• Challenges.
• Progress made towards the improvement of ambient air quality monitoring.
• Conclusion and way forward.
Geographic setting of the Gauteng province

- Gauteng Province comprises of three metropolitan municipalities (City of Johannesburg, City of Tshwane and Ekurhuleni Metropolitan Municipality) and two district municipalities (Sedibeng and West Rand).

- Gauteng is the only province that falls within two priority areas (Vaal Triangle Airshed Priority Area and Highveld Priority Area).
Gauteng Province map showing all the municipalities
In 2004, GDARD procured and donated 7 ambient monitoring stations to various municipalities within the province to be operated, maintained and managed by the municipalities.

The seven stations now forms the integral part of the municipal networks, and the networks are as follows:

City of Johannesburg (COJ) has 8 monitoring stations which are operating but with some technical challenges. The data has not been reported to SAAQIS since December 2011 due to low data recovery.
Ekurhuleni Metropolitan Municipality (EMM) has ten (10) ambient air quality monitoring stations and eight of those stations are now running well. The data has not been reported to SAAQIS since September 2012 due to low data recovery.

City of Tshwane Metropolitan Municipality (CoT) has seven (07) permanent stations and four (04) mobile stations. All permanent stations are fully functional with more than 80% data recovery for most of the stations. The data is reported to SAAQIS.
Ambient Air Quality Monitoring Network and Reporting, cont…

- West Rand District Municipality (WRDM) runs two ambient air quality monitoring stations. The data from these stations has never been reported to SAAQIS.

- Sedibeng District Municipality (SDM) has two ambient air quality monitoring stations which have not been operating for the past four years. The data from these stations has never been reported to SAAQIS.
Ambient Air Quality Monitoring Network and Reporting, cont…

• In total, there are 29 ambient air quality monitoring stations owned by municipalities within the province.

• This number excludes the stations that falls within the priority areas, which are owned by the National Department and also the industry owned monitoring stations.

• Due to low data recovery at almost all the stations, the data could not be presented.
Challenges

• **Lack of capital resources** - There isn’t adequate budget for the maintenance and management of the monitoring stations in most of the municipalities.
  - There’s a lot of uncertainties when it comes to the continual running of the stations, especially in between contracts (for the service providers).

• **Lack of technical capacity** – There’s a lot of dependency on service providers for the running of stations which leaves a gap between the period when the contract has expired and when the new service providers are appointed.
Challenges, cont...

- Vandalism and theft is also a major concern.
- Lack of adequate security measures.
Progress towards the improvement of ambient air quality monitoring.

- EMM has appointed a service provider to manage the stations for the next two years and also to ensure that the other two stations are repaired and running well.

- EMM now has 3 year budget cycle to ensure uninterrupted running of the stations.

- All stations at EMM will be upgraded to report online. And in addition, capacity has been increased to boost air quality management.
Progress towards the improvement of ambient air quality monitoring. Cont…

- COJ has two full time technicians who are currently busy with repairs and maintenance of the stations. The stations will be fully operational in November 2013.

- CoT is in the process of procuring additional two mobile stations and seven PM$_{2.5}$ analyzers for existing stations.

- The stations at WRDM are currently managed by the service provider and monthly reports are generated. There are plans to report data on SAAQIS during the 2013/14 financial year.
Progress towards the improvement of ambient air quality monitoring. Cont...

- SDM advertised a bid for purposes of repairs and maintenance of the stations on the 02 September 2013.

- The maintenance contract will also cover the installation of a data collection and communication system to enable reporting to SAAQIS.
Conclusion

• Budget and technical capacity issues are the biggest challenge in monitoring and reporting in the province.

• The importance of air quality monitoring is considered to be lower than service delivery issues that local government focuses on.

• There has been a lot of challenges relating to ambient air quality monitoring, especially in the past year, but the future looks bright.
Way forward

- There’s a need to re-access the need for the stationery monitoring stations with the full set of pollutants monitoring versus the use pollutant specific mobile stations and passive sampling to provide information in areas with high pollution levels.

- Use priority area monitoring data to analyse and report on long term trends in the province.

- Utilise more effectively the ambient and emission data collected by industries and AEL processes.
THANK YOU