



# Local Air Quality in the South Tees Area

How good is our air?

March 1<sup>st</sup> 2019

# Presentation Overview

- Why we monitor air quality.
- What do we monitor and where do the pollutants come from.
- How good is our air quality
- Challenges

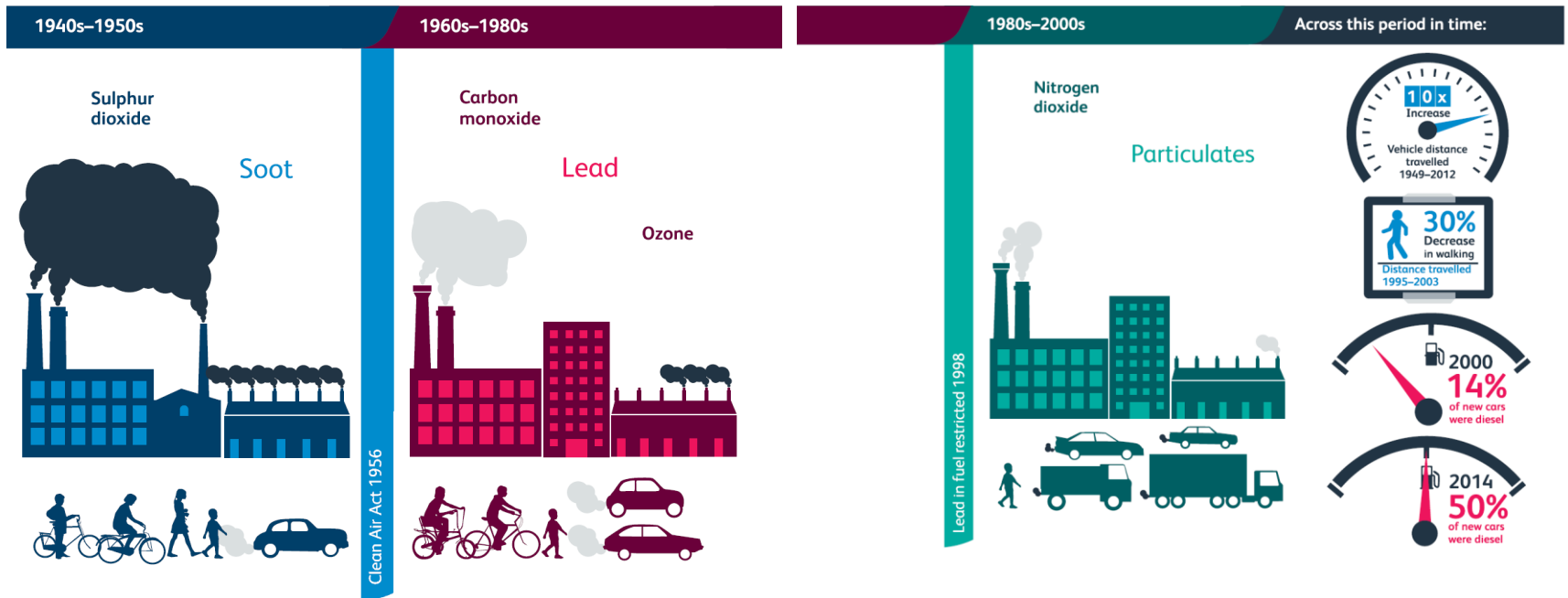


# Why?

- Local authorities have a legal duty to monitor air quality
- We need to know that we are meeting air quality standards
- We need know when we are exceeding air quality standards.
- Produce an Annual Status Report (ASR) for the Government (DEFRA).(2017 data)



# How air quality and pollutants have changed



# How do we monitor air quality

We have automatic air quality monitoring stations in Middlesbrough:

- Macmillan College
- Breckon Hill School (measurements automatically linked to the national reporting network)
- Elm Street (until 2016)

And in Redcar:

- Dormanstown
- Corporation Road (until 2011)

Network of Nitrogen dioxide diffusion tubes



# How do we monitor air quality?

In Middlesbrough:

27 diffusion tubes located at 25 sites across the town.

In Redcar:

19 sites for 2019 reporting.

Measuring nitrogen dioxide (NO<sub>2</sub>) only.

Replaced monthly.



# What pollutants do we monitor

- Nitrogen dioxide
- Sulphur dioxide
- Ozone
- Particulates PM10
- Particulates PM2.5 - Middlesbrough
- Benzene – Middlesbrough
- Polycyclic Aromatic Hydrocarbons - Middlesbrough

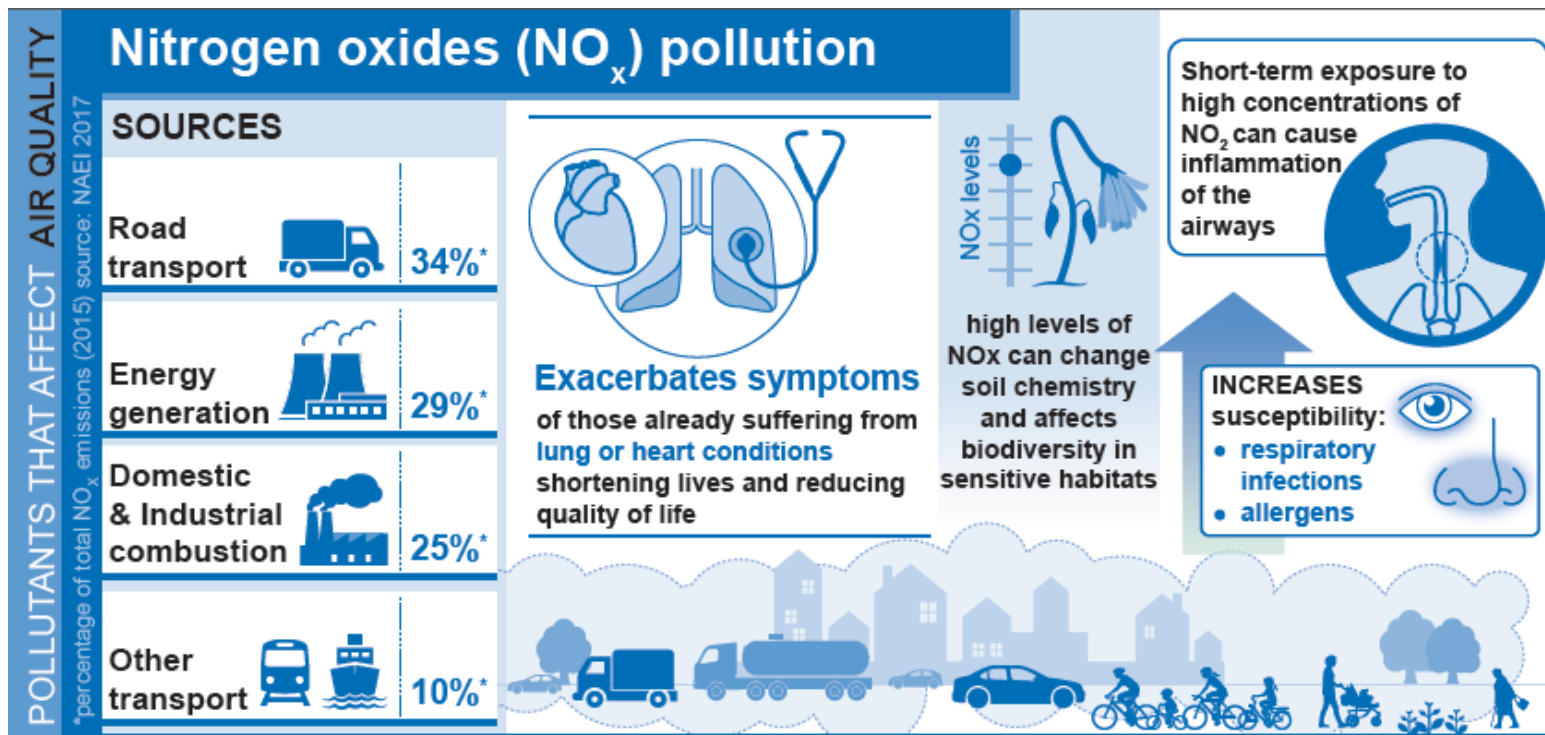


What are the pollutants of most concern?

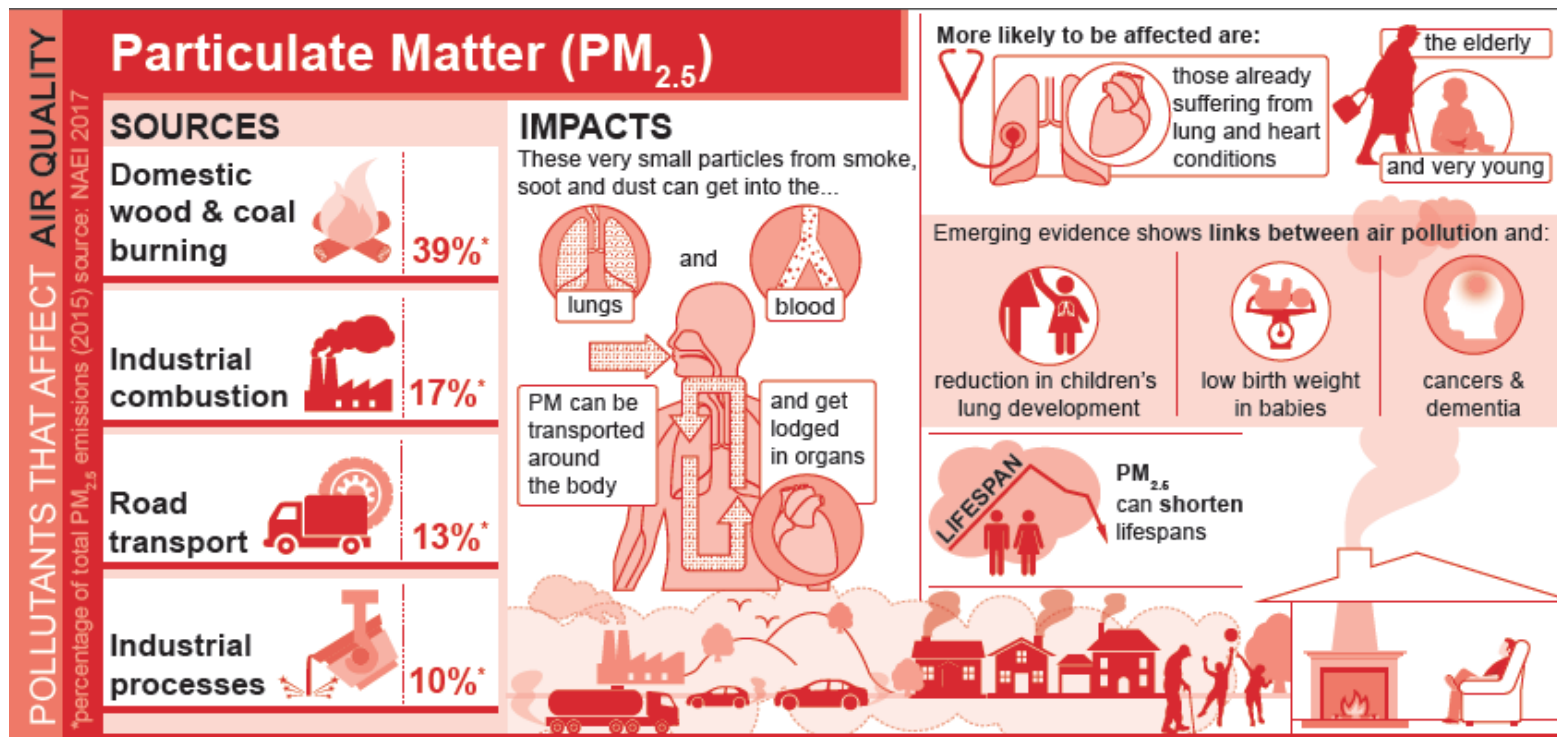




# Nitrogen Dioxide (NO<sub>2</sub>)



# Particulate Matter (PM<sub>10</sub> PM<sub>2.5</sub>)

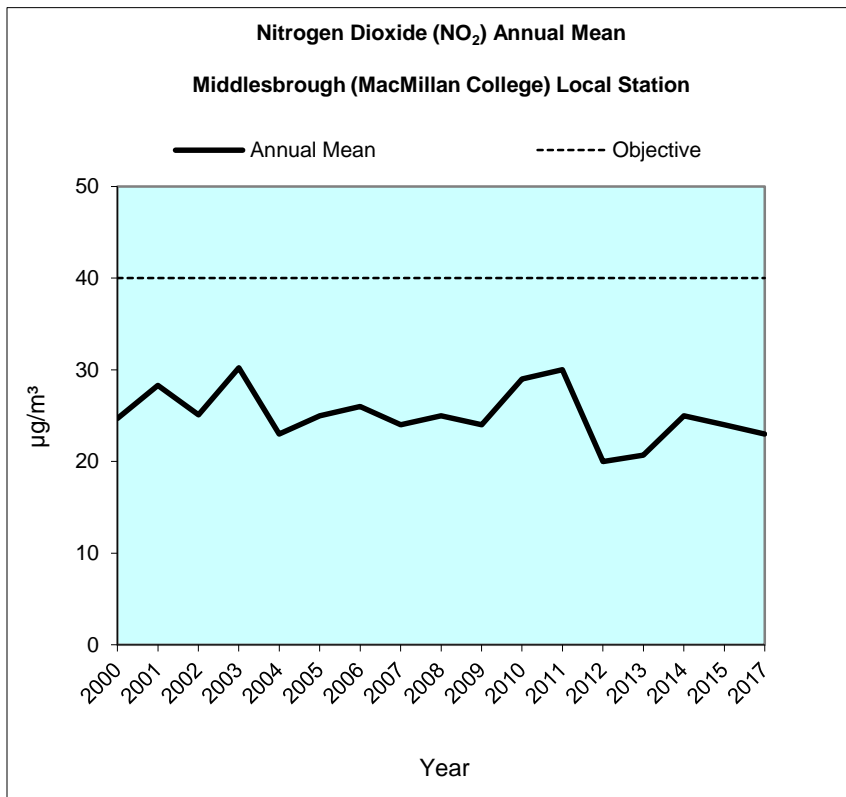


# How good is our air quality

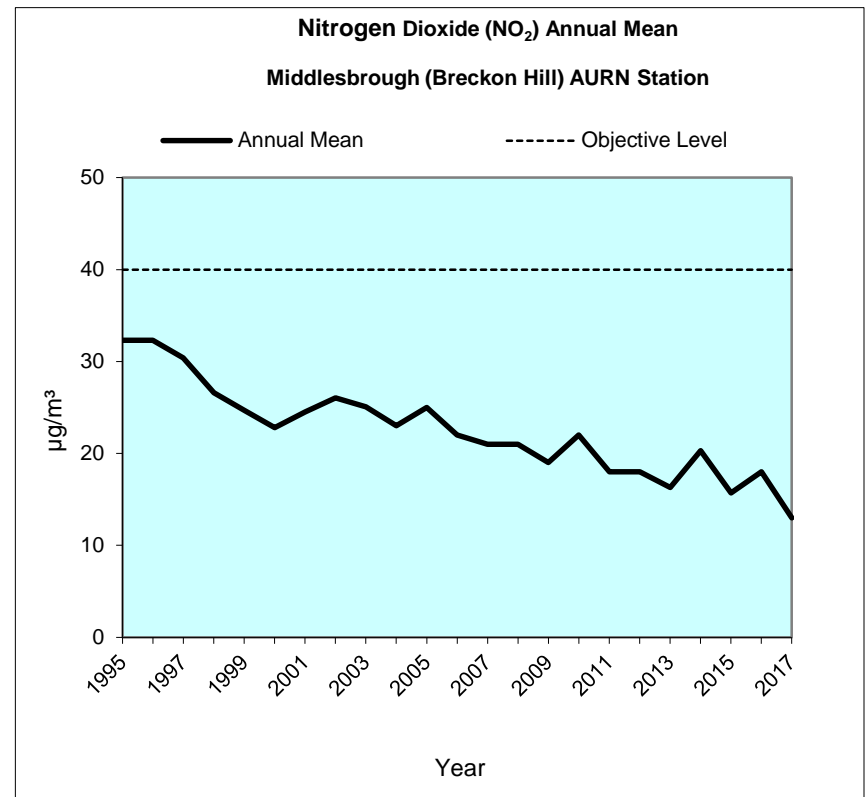


# Nitrogen Dioxide

## Macmillan College Station

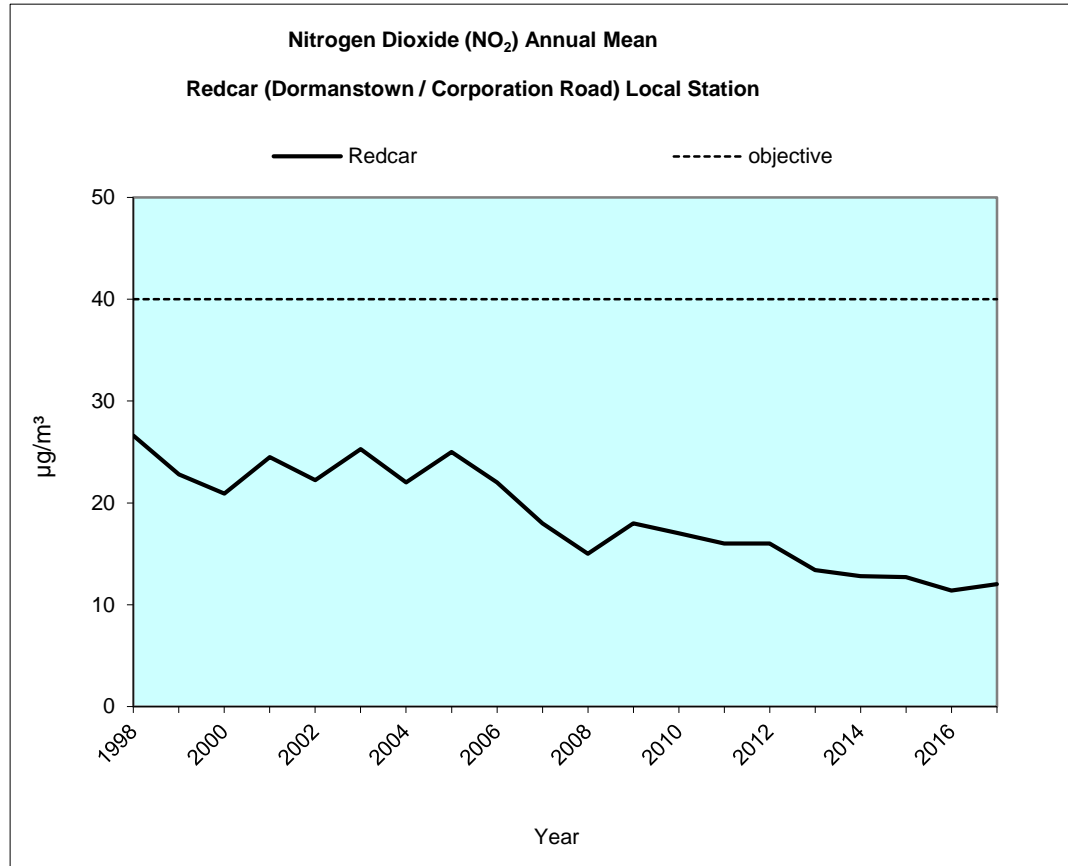


## Breckon Hill Station



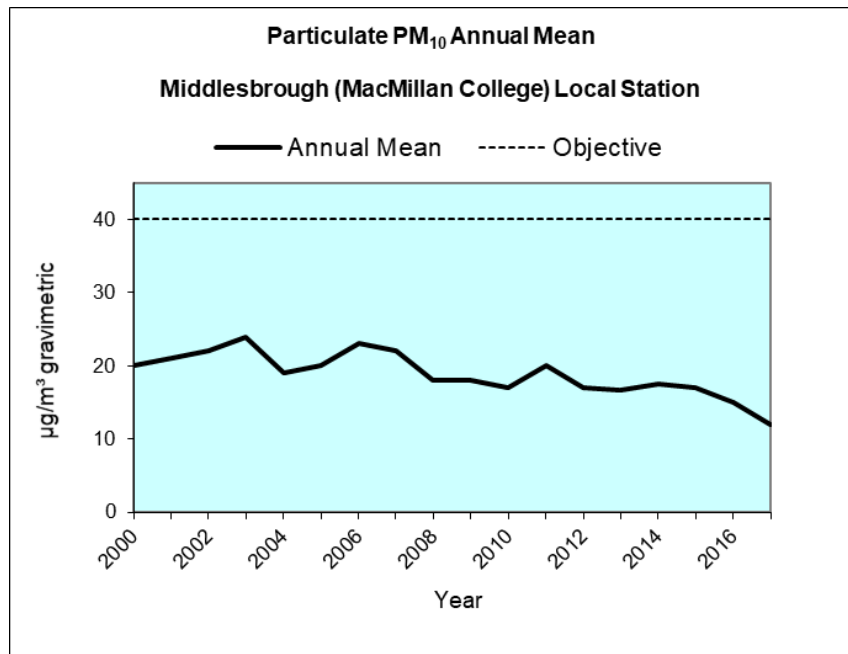
# Nitrogen dioxide

## Redcar Dormanstown / Corporation Road

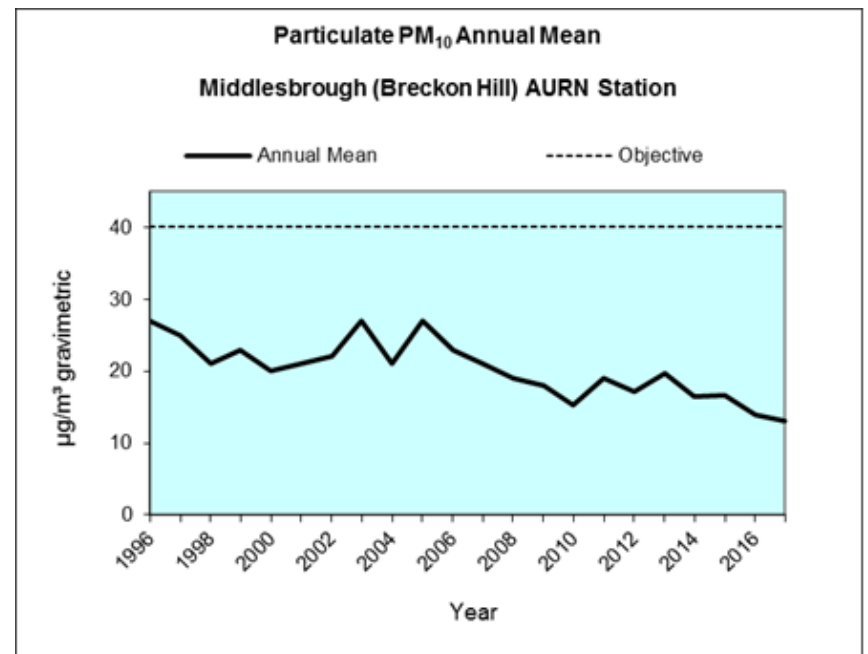


# PM<sub>10</sub>

## Macmillan College Station

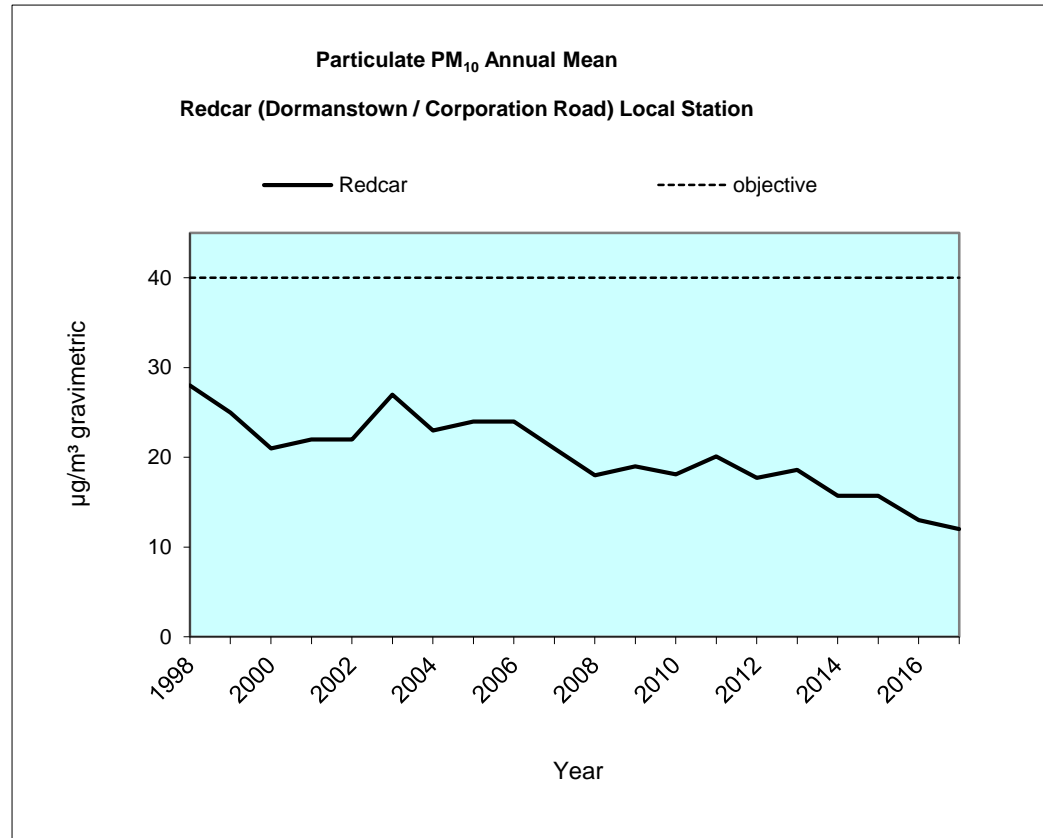


## Breckon Hill Station

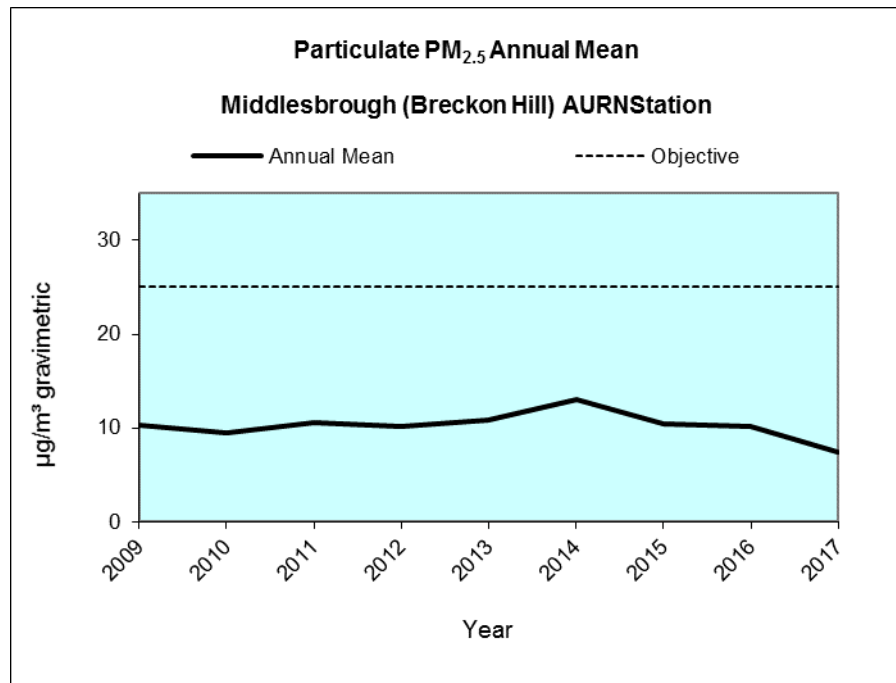


# PM<sub>10</sub>

## Redcar Dormanstown / Corporation Road

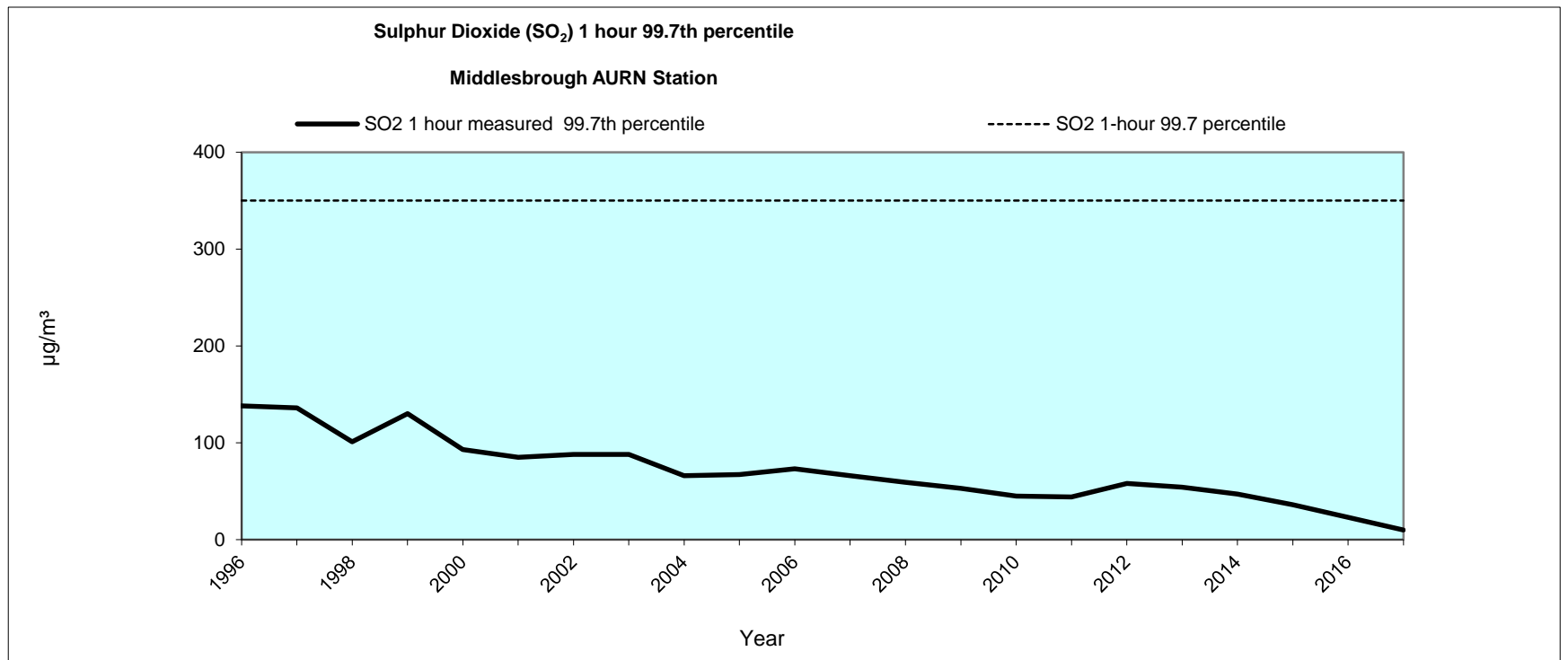


# PM<sub>2.5</sub>

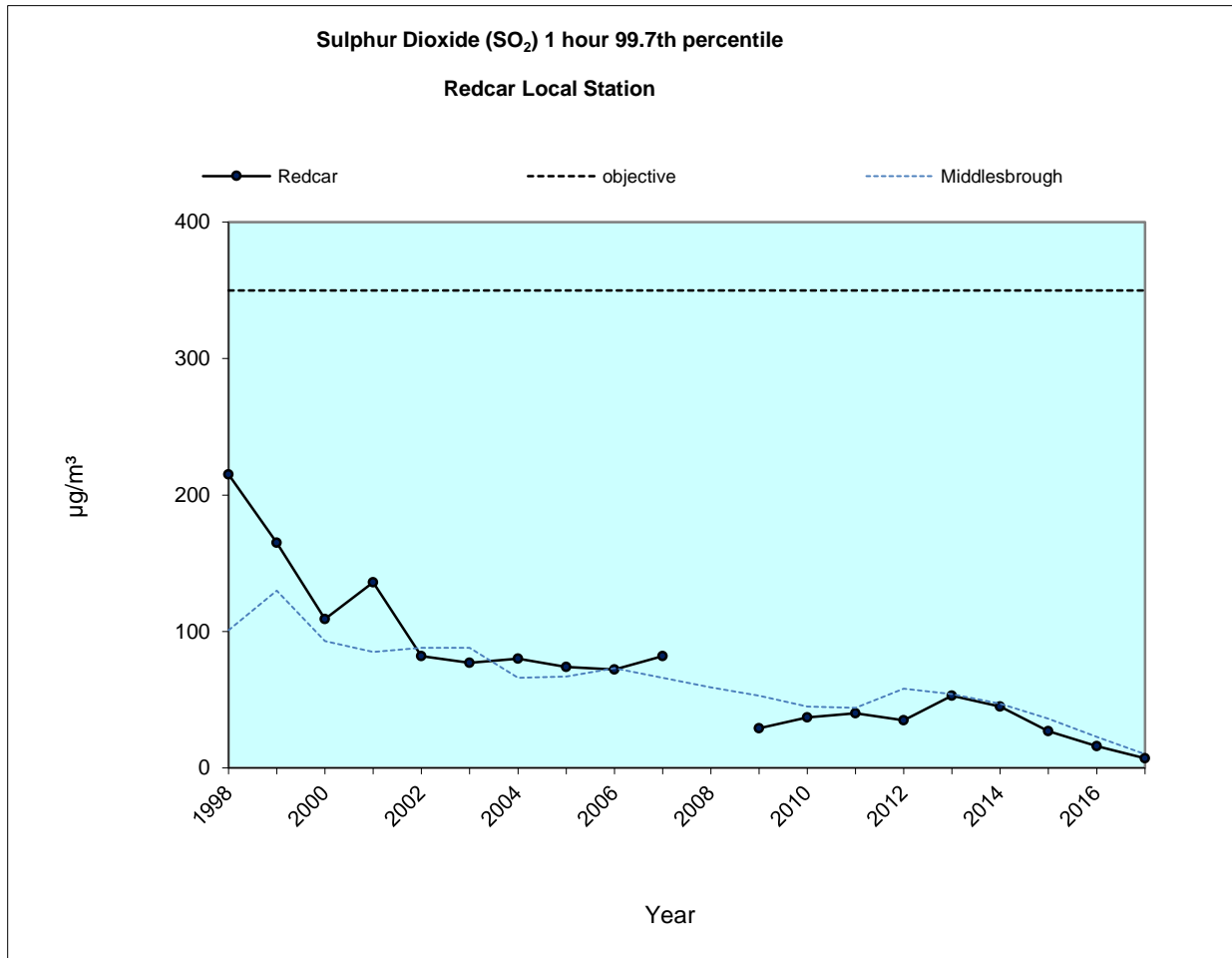




# Sulphur Dioxide



# Sulphur Dioxide



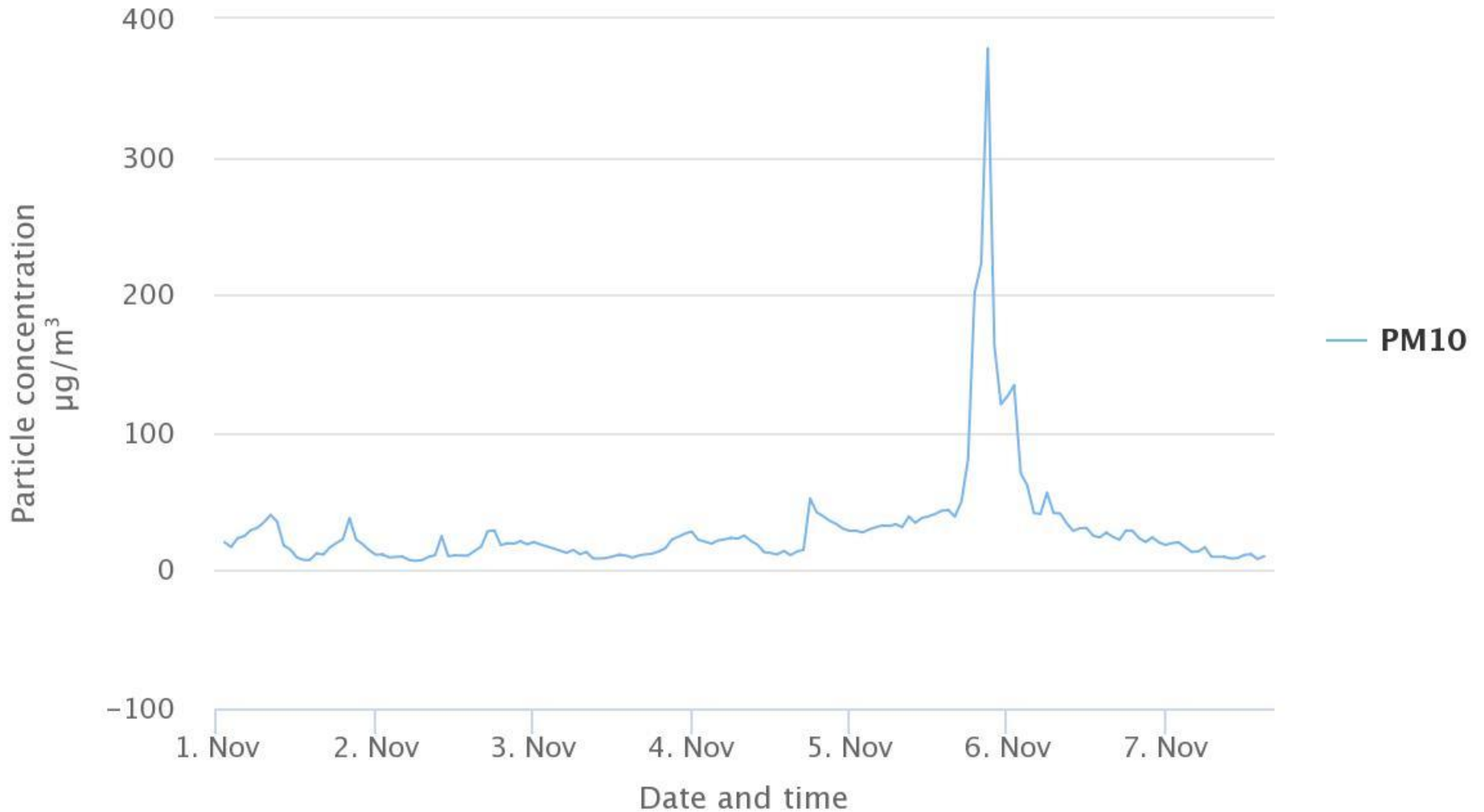
# Comparison of South Tees Areas

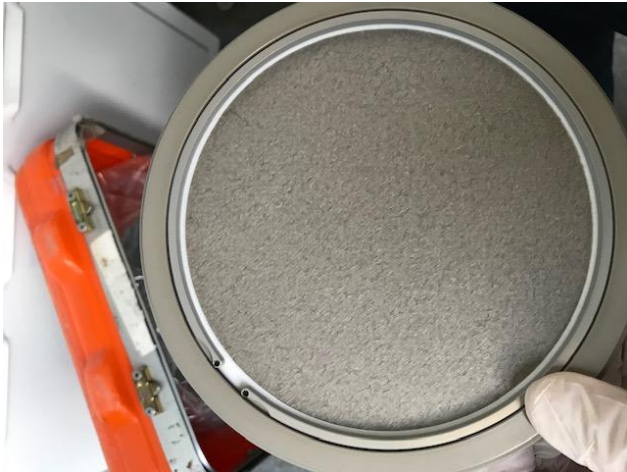
- No distinct differences in measured background station pollutants between the two Authorities.
- Diffusion tube results will depend on their location, however results in comparable locations e.g. high traffic flow roads and fleet make up show similar values.



# Middlesbrough

Measured data from 01/11/2018 to 07/11/2018





# Challenges

- Meeting a limit value no longer the aim, we now have to work to bring pollution levels down further
- Reducing the levels of PM2.5
- Targeting the most relevant sources
- South Tees Clean Air Strategy

