

Collie Air Quality

Presentation to the Shire of Collie

29 July 2014

Collie's air quality

▶ Pollutants:

- PM, SO₂

▶ PM

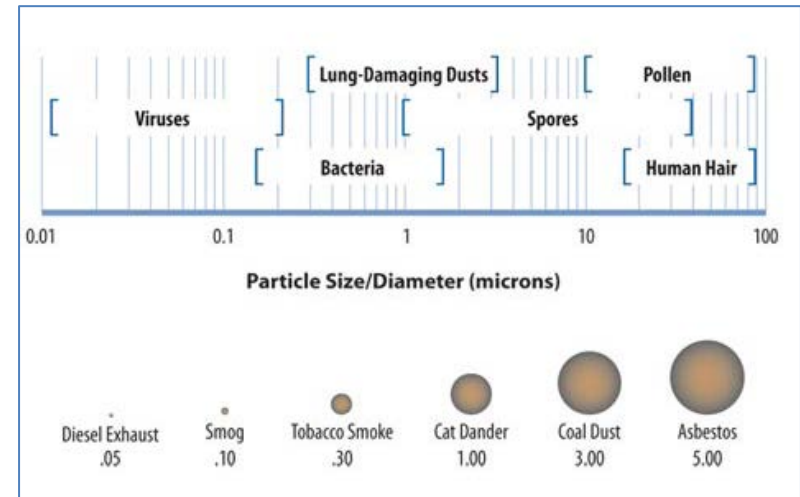
- Smoke
 - Bushfires and prescribed burning
 - Domestic wood heaters
- Industrial emissions

▶ SO₂

- Industrial premises

▶ National Environment Protection Measures

- NEPM PM₁₀
 - exceeded on 39 occasions between 2008 and 2013
 - main causes are smoke from prescribed burning, bushfires or wood heaters
- NEPM SO₂
 - Not exceeded

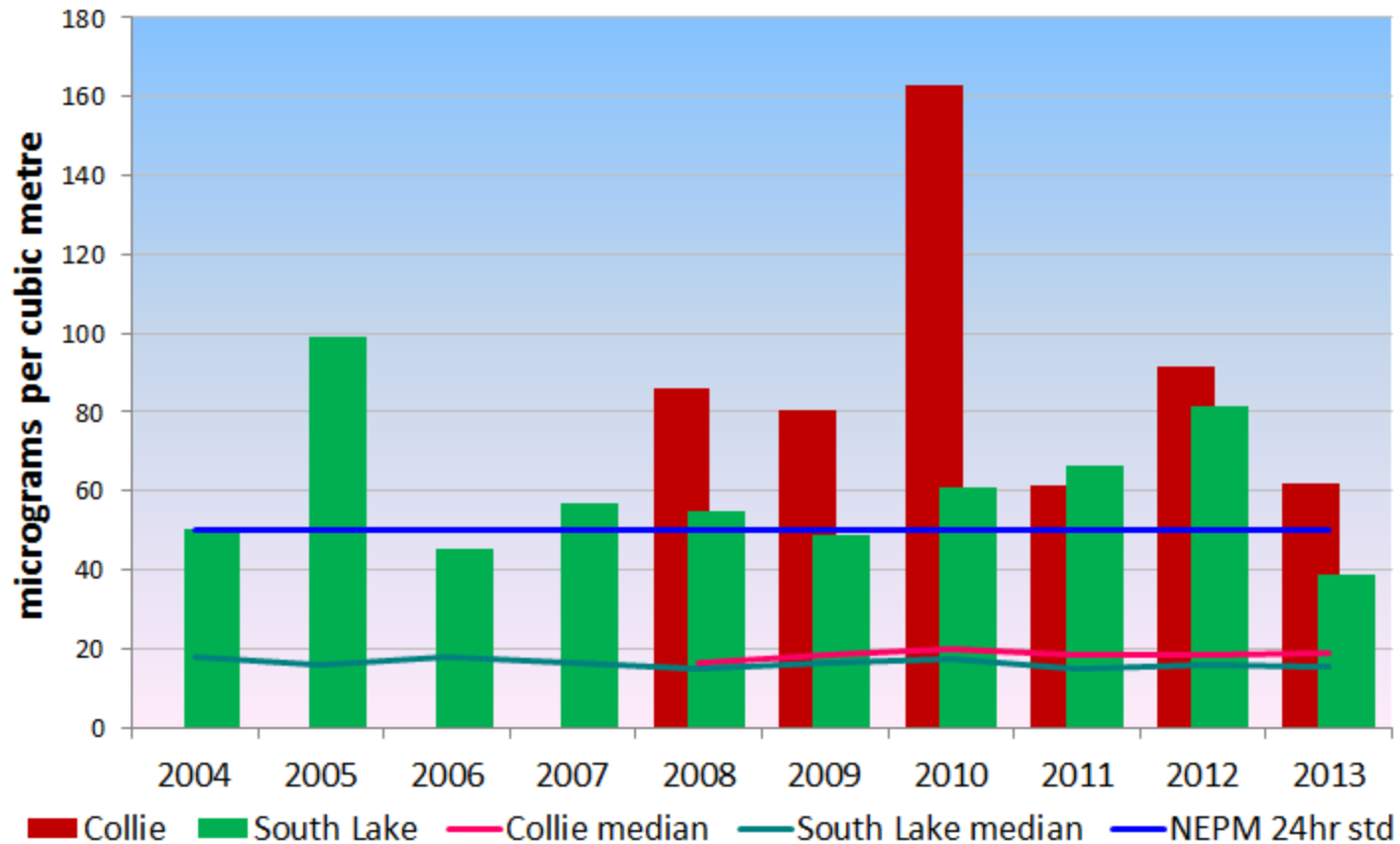


Air quality monitoring

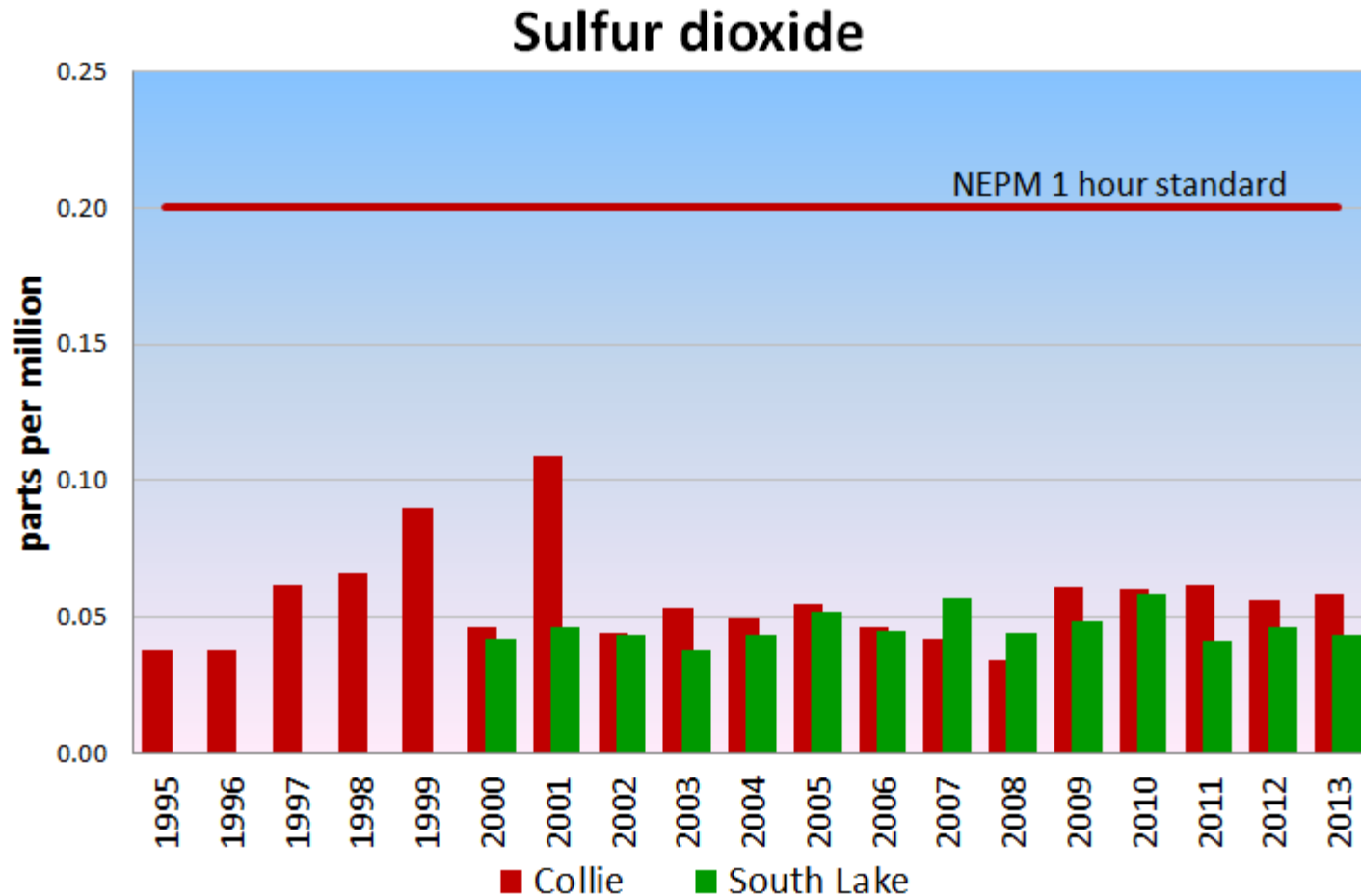
- ▶ PM monitoring:
 - Representative of the region
 - Inclusive of all sources
 - [DER Air Quality Index](#)
 - On DER's website
 - Updated hourly
- ▶ SO₂ monitoring:
 - conditions on industry licences
 - DER independent monitoring station August 2014.

Comparison with Perth PM10

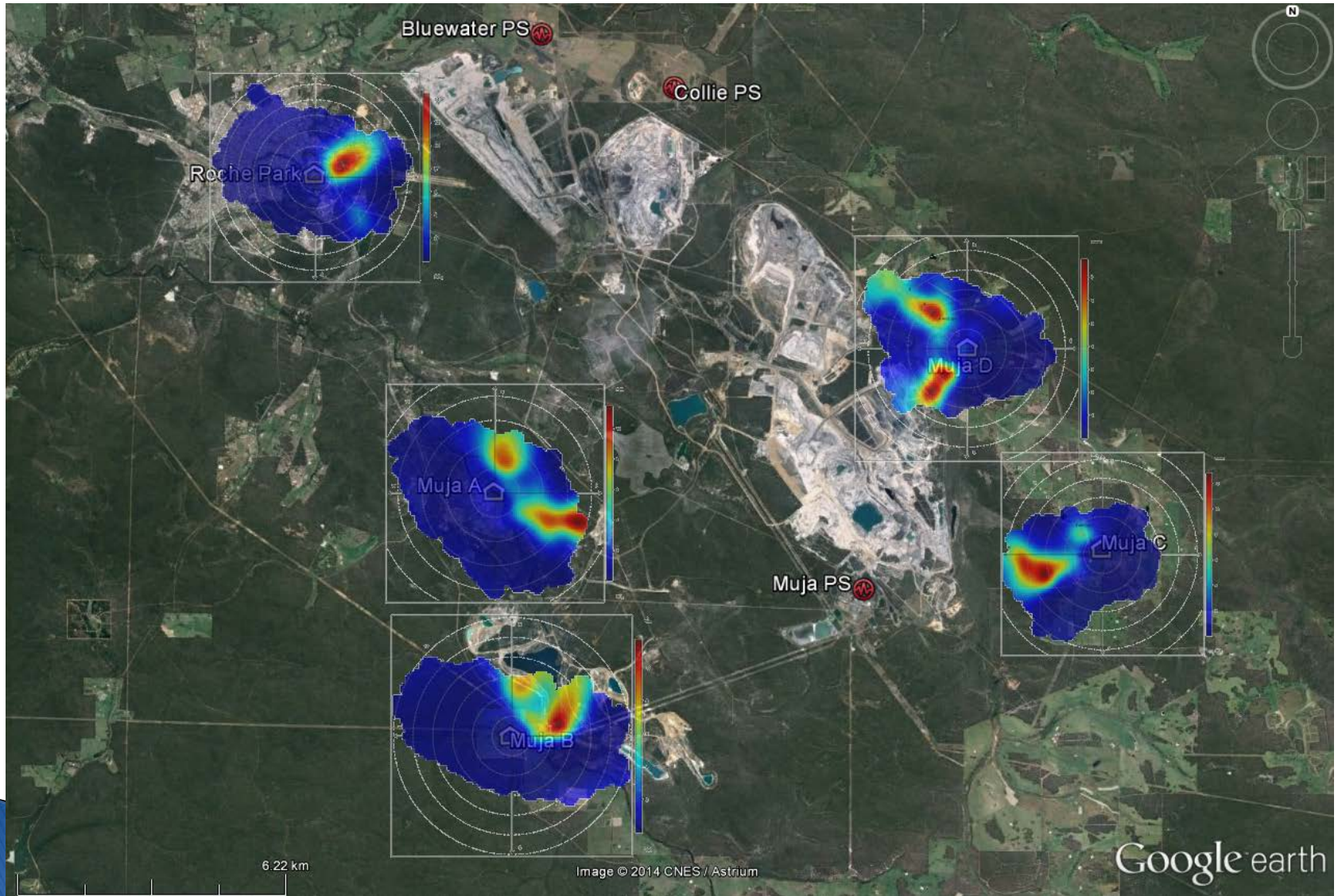
Maximum 24 hour particles as PM10



Comparison with Perth SO₂



SO₂ monitoring network



Collie air quality in the news

- ▶ [National Pollutant Inventory \(NPI\)](#)
 - Free information about substance emissions
 - Community, industry and government users
- ▶ Data
 - Reported by industry
 - Published on the NPI website
- ▶ Bluewaters Power Station 2012–13
 - increases in emissions for:
 - PM10 (from 12,000 kg to 540,000 kg)
 - PM2.5 (from 590 kg to 240,000 kg)
 - lead (from 1.6 kg to 8 kg).
 - DER has identified an error with estimated particulate emissions

What has happened?

- ▶ DER requested that Bluewaters Power Station recalculate and resubmit NPI emissions for reporting years 2008–09, 2009–10, 2010–11 and 2011–12.
- ▶ Bluewaters Power Station has recalculated and provided revised data.
- ▶ Corrections to the facility's reports will be published on the NPI website in August 2014.

Corrected data

▶ Bluewaters Power Station

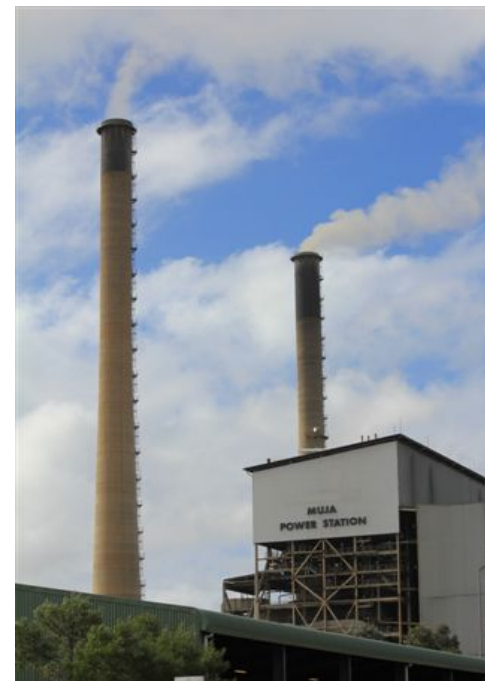
Year	Substance	Published value (kg)	Corrected value (kg)
2008/2009	PM10	1,300	18,000
	PM2.5	650	8,300
2009/2010	PM10	210	170,000
	PM2.5	120	77,000
2010/2011	PM10	800	250,000
	PM2.5	620	110,000
2011/2012	PM10	12,000	250,000
	PM2.5	590	110,000
2012/2013	PM10	540,000	230,000
	PM2.5	240,000	100,000

DER's role in protecting and improving Collie's air quality

- ▶ Regulation
 - Prescribed premises
- ▶ Strategic, technical, and policy advice on air quality issues and standards
- ▶ Air quality science
 - air dispersion modelling
 - air monitoring
 - other matters: meteorology, odour, dust, and air toxics
- ▶ Advice to the Minister for Environment, EPA, other State and local government agencies, industry, and the community
- ▶ Studies to improve understanding of emission sources and level of pollutants in the Collie region

SO₂ Industry Air Quality Study

- ▶ Aim: to improve the reliability of existing air dispersion models for the area for use in predicting the combined impacts of SO₂ and similar stack emissions from all industries.
- ▶ 3 years
- ▶ Includes:
 - detailed monitoring
 - modelling research
- ▶ Data to underpin an airshed management strategy, as at Kwinana.
- ▶ industry-funded collaboration
 - Includes Project Director and Scientific Advisor.
- ▶ Scientific oversight and guidance from DER
- ▶ early stages of monitoring
- ▶ Regulation of SO₂?



How does DER manage Collie's air quality?

- ▶ Bushfires/Prescribed burning
 - works with Department of Parks and Wildlife and the Department of Fire and Emergency Services to minimise the impacts of smoke from bushfires and prescribed burns
- ▶ Wood heaters
 - [DER's *BurnWise* program](#) promotes correct wood heater operation to minimise the impact of wood smoke on neighbourhoods and air quality.
- ▶ Industry
 - through licences, DER requires industry to operate specified pollution control technology, and monitor emissions of certain substances, such as particulates, heavy metals and sulfur dioxide. Industry is also required to maintain a comprehensive ambient monitoring network for SO₂ and particulates.

Questions?

- ▶ www.der.wa.gov.au
- ▶ info@der.wa.gov.au