

Vancouver Port Authority



- Quadruple the number of containers over the next 16 years
- Add 360,000 TEUs at the Burrard Terminals by 2005

- Baseline Legislation and Guidance under CEPA
- Regional Air Quality a GVRD mandate under the provincial Waste Management Act

Air Emission Issues



- “Recent forecasts anticipate significant increases in marine smog-forming emissions and marine diesel particulate emissions over the next twenty years. Local and regional air quality impacts due to emissions from docked vessels, as well as emissions from port activities such as cargo handling and land/rail based transshipment of goods are also of on-going concern, especially as the Port proceeds with expansion...”

In the News



THE VANCOUVER SUN

www.vancouver.sun.com

FINAL

SATURDAY, NOVEMBER 30, 2002

SPECIAL REPORT

SHIP EMISSIONS ON THE RISE

Poison in the air

The ships that ply our waters are spewing tonnes of chemicals into the atmosphere over the Lower Mainland every year — exceeding emissions by cars in certain pollutants. A fix for the problem won't come quickly



SPECIAL REPORT

ENVIRONMENT

Ships
add to
smog:
study

Canada lags
in acting on
port health
hazards

Scott Simpson

Trends in U.S. Air Emissions



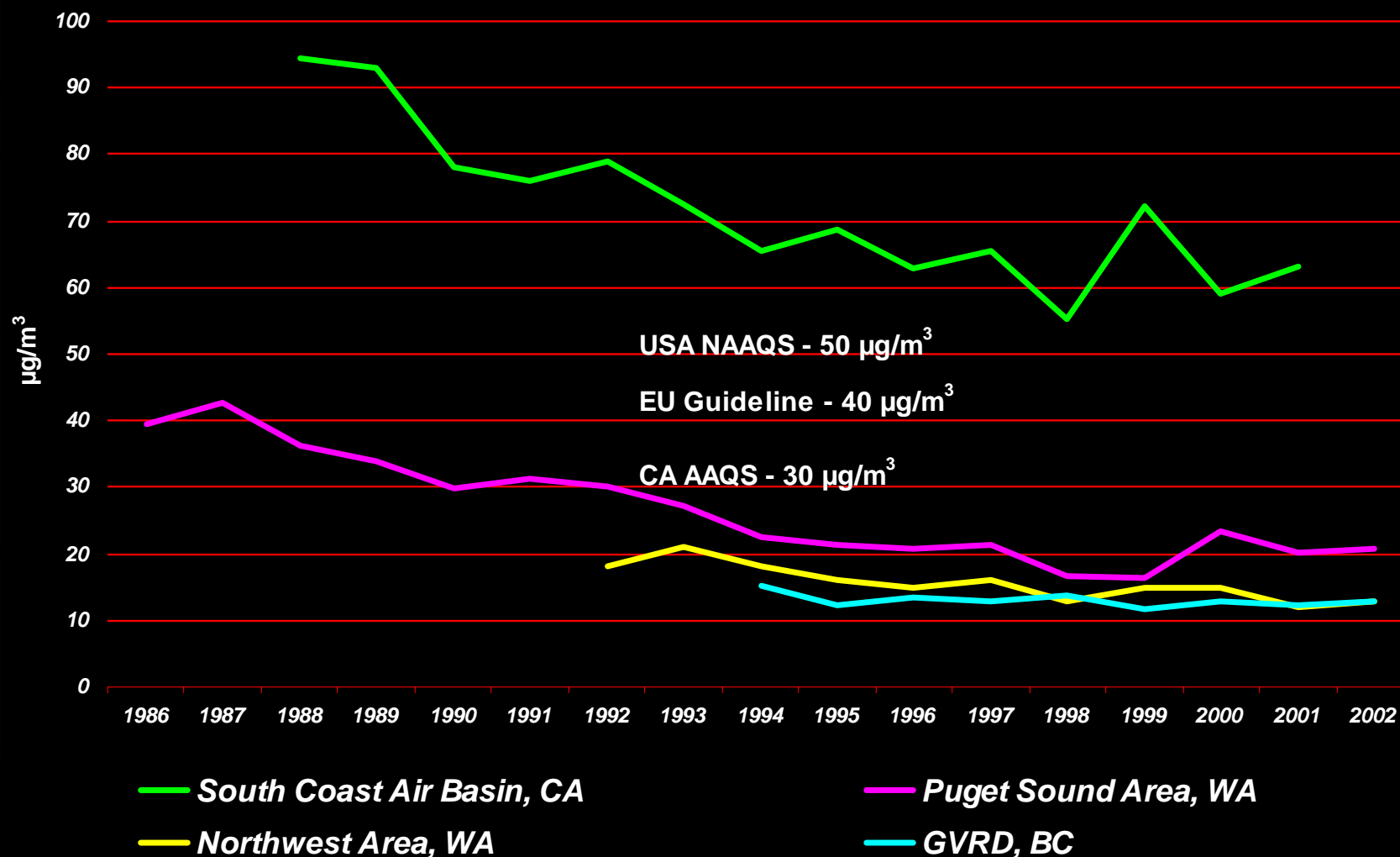
- PM (PM₁₀) – excluding fugitive dust
 - peaked in 1950's
- SO₂
 - peaked 1970's
- NO_x
 - peaked 1980's

National Trends Ambient Air Quality

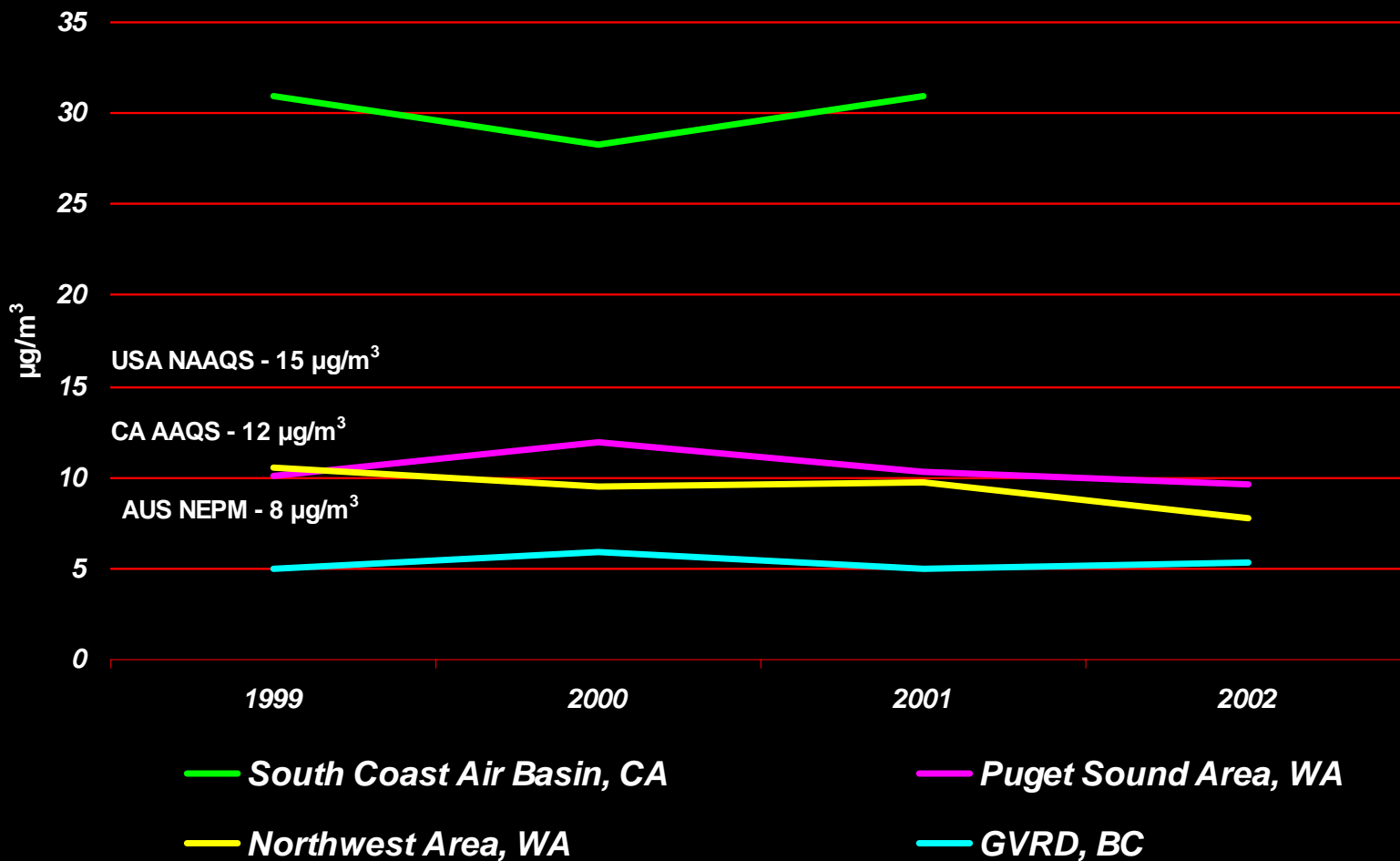


	Canada		United States	
	1983-2000	1993-2000	1983-2002	1993-2002
SO₂	- 36%	+ 5%	- 54%	- 39%
NO₂	- 32%	- 24%	- 21%	- 11%
TSP	- 43%	- 28%	-	-
PM₁₀	-	-	-	- 13%
PM_{2.5}	-	-	-	- 8%

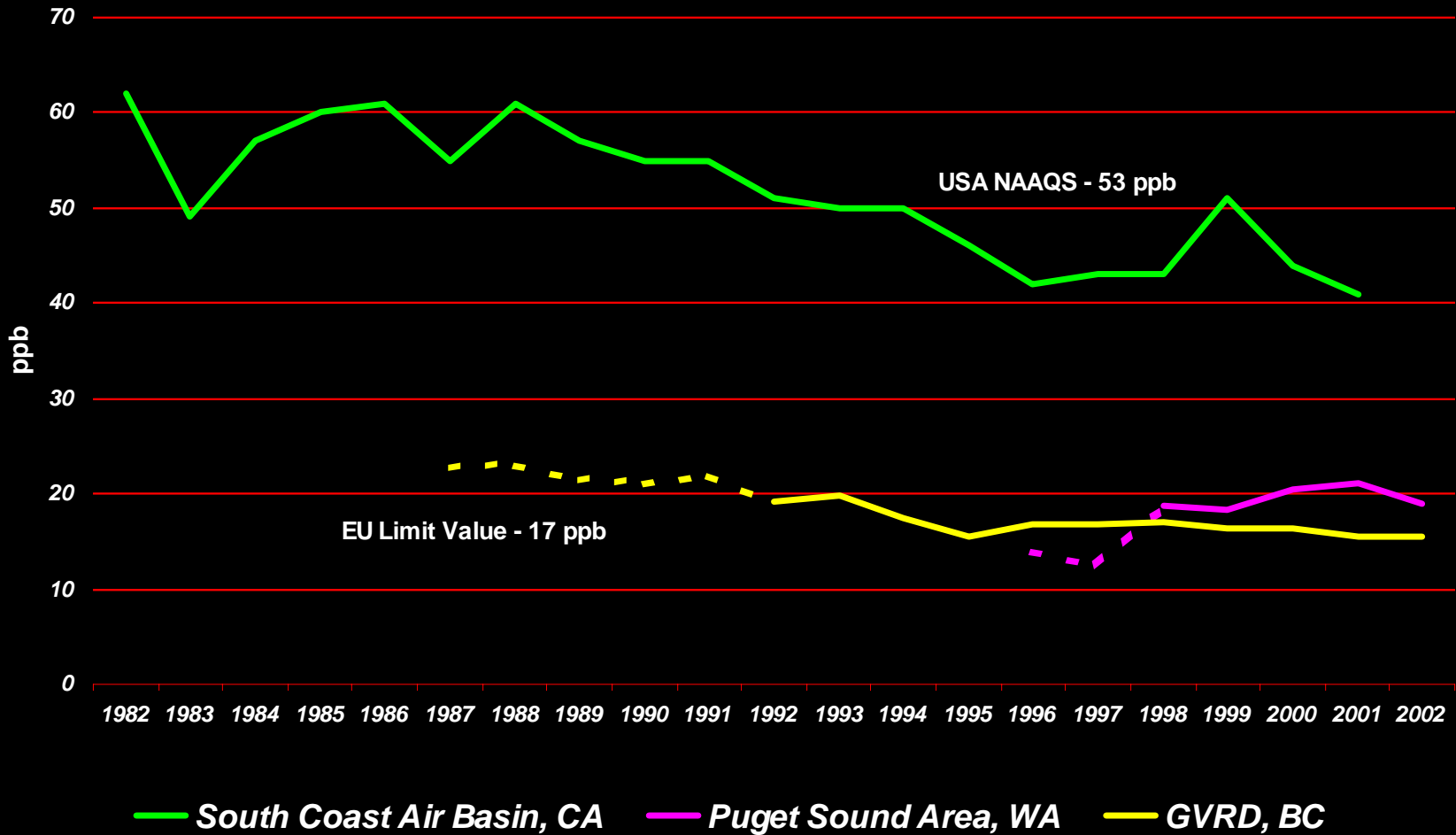
Regional Trends in Mean PM₁₀



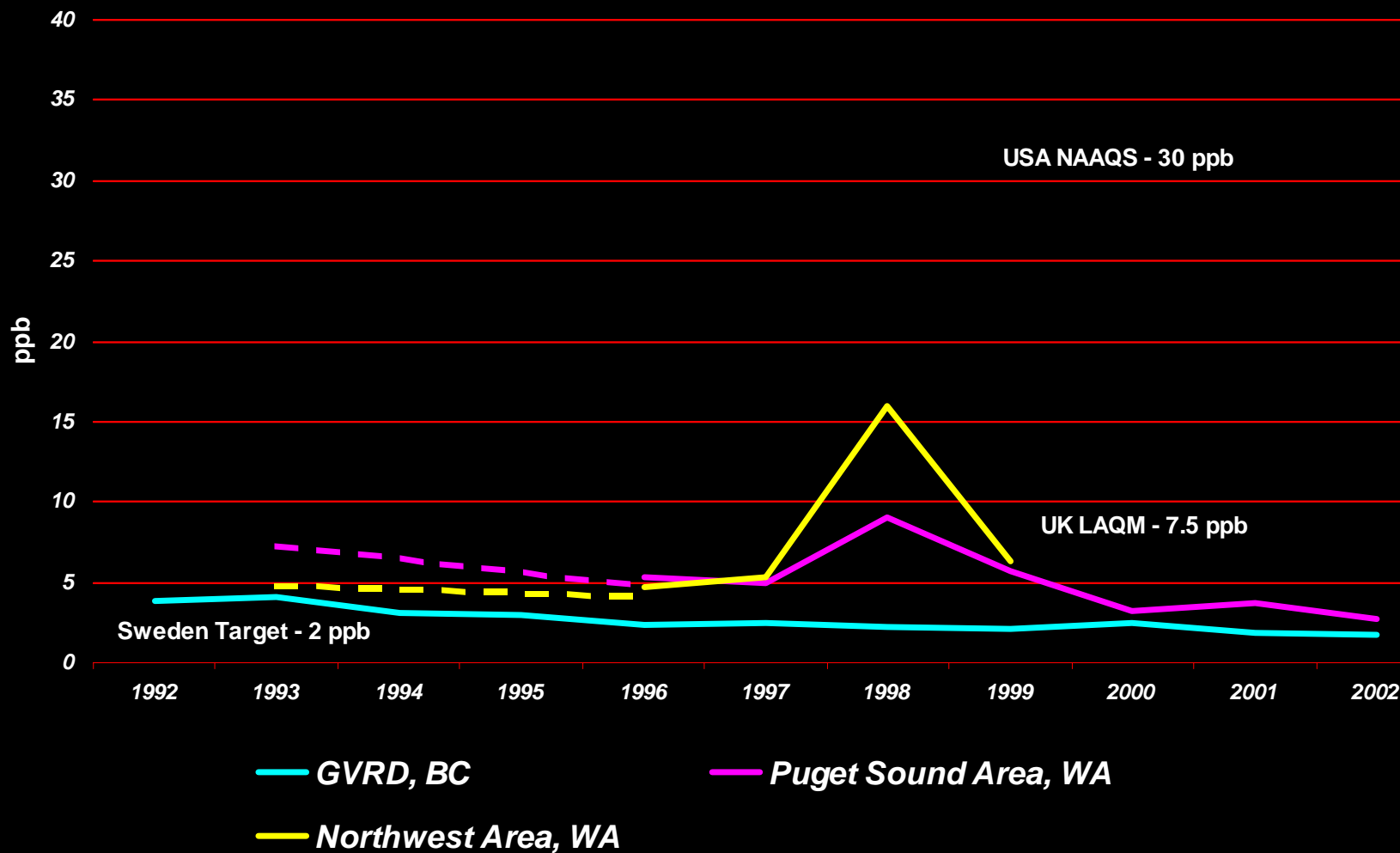
Regional Trends in Mean PM_{2.5}



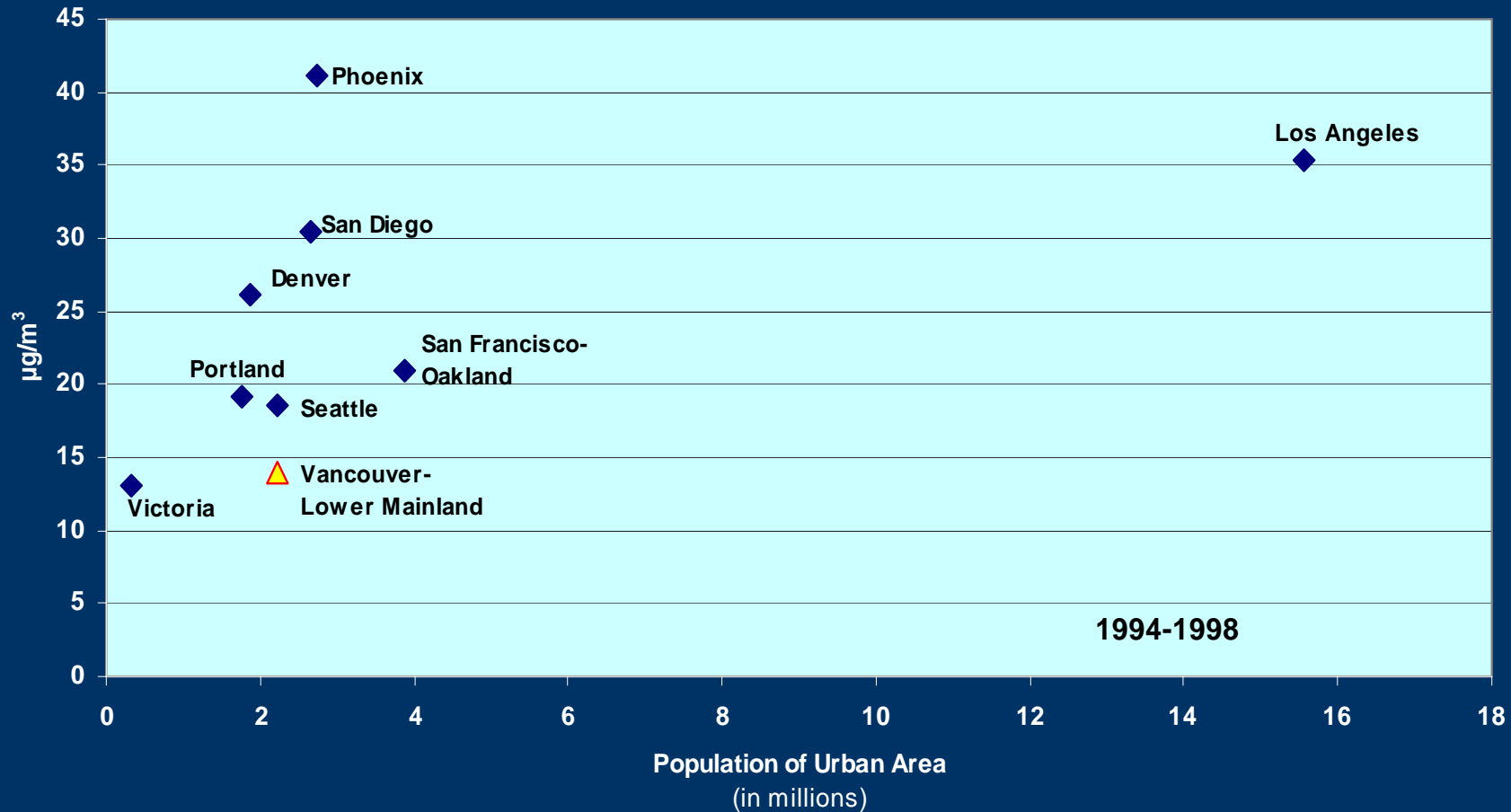
Regional Trends in Mean NO₂



Regional Trends in Mean SO₂



Average Annual PM₁₀ Large Urban Areas



A Strategy to Manage Air Emissions



- Data Baseline
- Increased Operational Efficiency
- Innovative Technological Improvements
- International Regulatory Change

Data Baseline



- Compile information about air emissions and the contributions of marine, truck and rail traffic as well as terminals.
- Quantify reductions achieved in the last 5 years due to operational and technological improvements
- Develop a process to quantify emissions credits and establish baselines

- Truck reservation system
- Cruise passenger buses
- Cruise traffic management
- Transshipment intermodal yard
- Transportation studies aimed at reducing congestion in urban streets
- Rail studies

- Clearing House
- Shore Power review
- O2 Diesel
- Water Injection
- CombustAll
- Biodiesel

International Regulatory Change



- Significant and On-going reductions
- Level playing field
- Barriers and opportunities

Vancouver Port Authority

