

NEXT STEPS IN IMPLEMENTING THE PRINCE GEORGE AIRSHED PLAN

Presented to: BC Clean Air Workshop 2007

Presented for: PG Air Quality Implementation Committee

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Next Steps in the Prince George Airshed Plan, cont'd.

- **Objective:**
- *To achieve and maintain acceptable air quality by reducing the emission of those air contaminants that are causing unacceptable air quality, and by preventing future air quality problems from developing.*

Next Steps in the Prince George Airshed Plan, cont'd.

- **Phase I Management Recommendations (1998-2005):**
- **Management Structure**
 - ✓ Establishment of multi-stakeholder groups:
 - Air Quality Steering Committee
 - Air Quality Implementation Committee
 - Air Quality Research Working Group
 - Air Quality Monitoring Working Group

Prince George Air Quality Committee Structures

PRINCE GEORGE AIR QUALITY STEERING COMMITTEE

MOE Regional Manager
Regional District of Fraser-Fort George
City of Prince George
Industry Representative (Canfor)
Northern Health Authority

PRINCE GEORGE AIR QUALITY IMPLEMENTATION COMMITTEE

- Ministry of Environment Designates (2)
- Ministry of Transportation Designate (1)
- Northern Health Authority Designate (1)
- City of Prince George Designates (2)
- Regional District of Fraser-Fort George Designates (1)
- Industry Representation (1 from each)-
 - Canfor,
 - CN Rail,
 - Husky Energy,
 - Central Interior Wood Processors' Association,
 - Carrier Lumber
- UNBC Designates (2)
- Prince George Chamber of Commerce Designate (1)
- Prince George and District Medical Society Designate (1)
- NGO's, with an interest in air quality (2)**
- Lheidli T'enneh Designate (1)
- Public Members (2)**

MONITORING WORKING GROUP

Standing committee that reports on status of monitoring

RESEARCH WORKING GROUP

Standing committee that reports on a variety of research and health topics

Next Steps in the Prince George Airshed Plan, cont'd.

- **Fine Particulate Management Actions**

- ✓ 3 beehive burners eliminated
- ✓ Paving of Willowdale Rd. (Penn Rd. to Carrier Mill)
- ✓ Installation of electrostatic precipitators:
 - Canfor Intercon power boiler (1998)
 - PG Pulp & Paper recovery boiler (2002)
- ✓ Clean Air Bylaw (2001 and 2005): open burning restrictions
- ✓ Wood stove exchange program

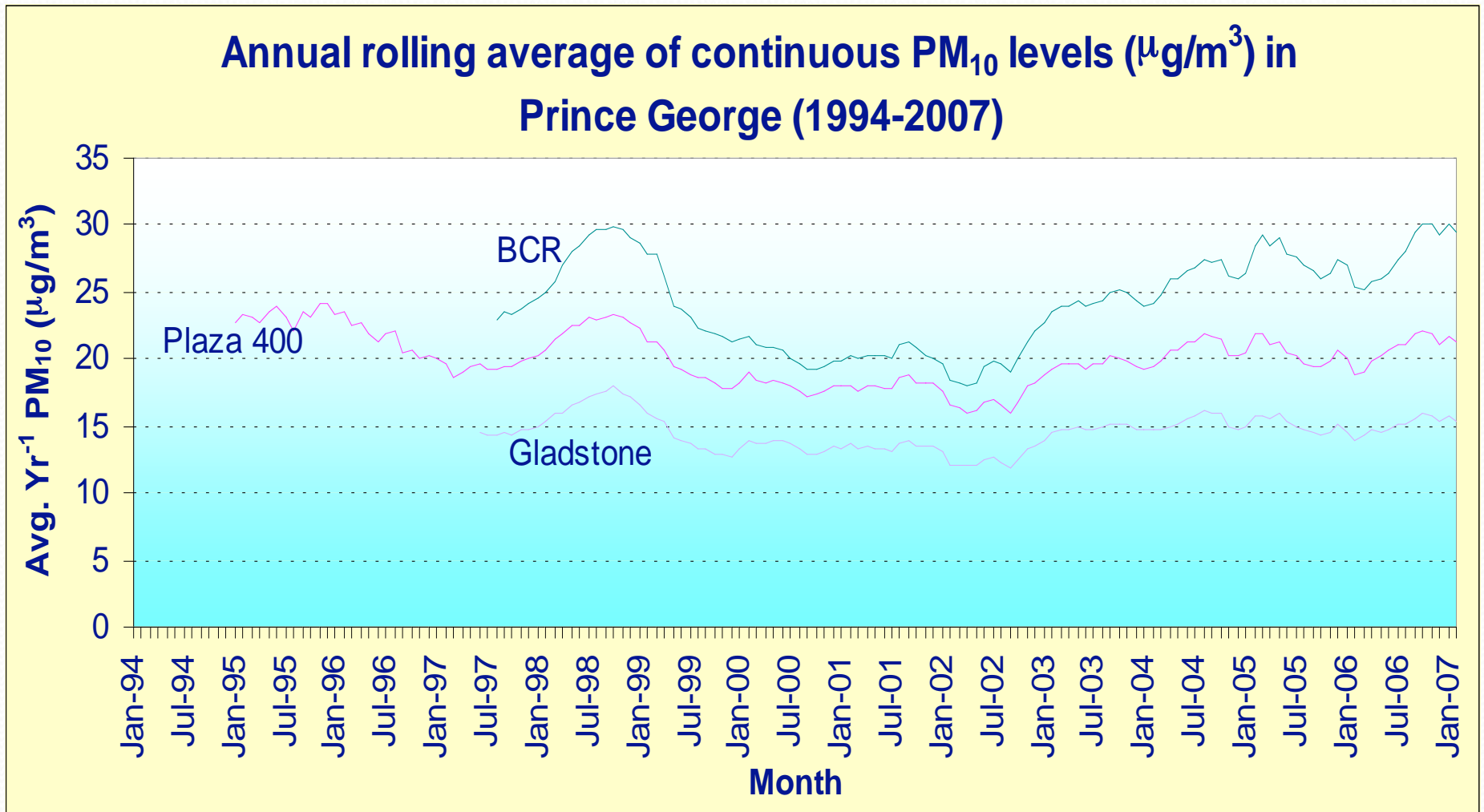
Next Steps in the Prince George Airshed Plan, cont'd.

- **Community & Regional Planning**
 - ✓ Air quality issues (e.g. road dust, vehicle exhaust, wood stoves) considered in PG Official Community Plan
 - Industrial Lands Study: locating of new industry within 30 miles of PG (*on-going*)
- **Prevention of Air Quality Problems**
 - MOE evaluation of new air permit applications based on “lowest achievable discharge rate” – no new permits issued within PG airshed (*on-going*)
 - ✓ Vehicle Emissions Workshop (2003): 256 vehicles tested

Next Steps in the Prince George Airshed Plan, cont'd.

- **Management of Poor Air Quality Episodes**
 - MOE requests temporary PM emission reductions from primary sources during AQ advisories (*on-going*)
 - Predicting PM episodes (*on-going*)
- **Monitoring & Research**
 - ✓ Ambient air monitoring program (*1994-present*)
 - ✓ Wind sector analysis (*2004*)
 - PM_{2.5} speciation study (*Sept. 2007*)
 - Updated emissions inventory (*Sept. 2007*)
 - Source & receptor dispersion modelling studies (*Mar. 2008*)

Next Steps in the Prince George Airshed Plan, cont'd.



Next Steps in the Prince George Airshed Plan, cont'd.

Annual average of continuous PM_{2.5} levels ($\mu\text{g}/\text{m}^3$) at Plaza 400, Prince George (1998-2005)



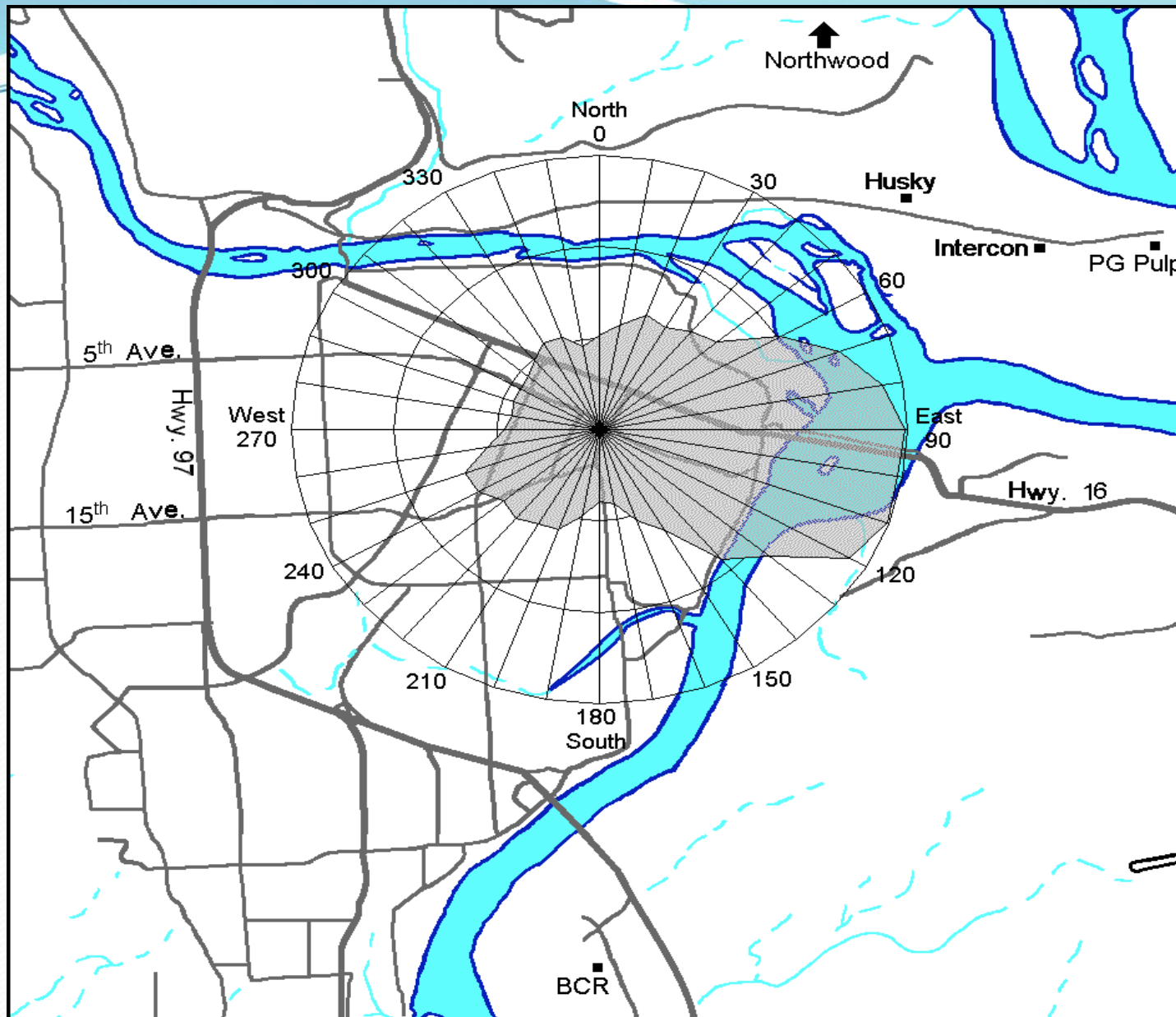
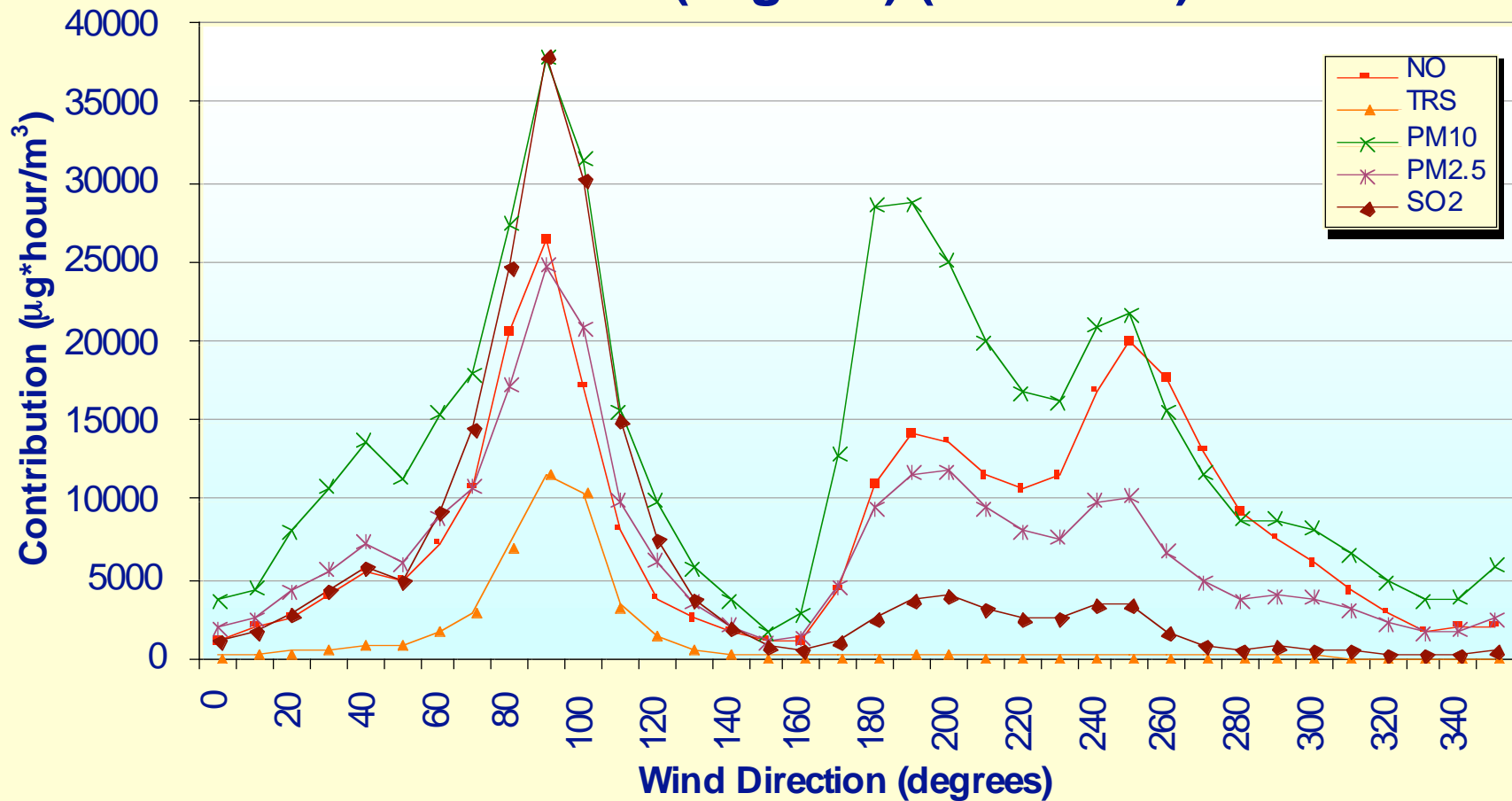


Figure 1: Distribution of average (1998 - 2004) Prince George Plaza 400 $PM_{2.5}$ concentrations ($\mu g/m^3$) by wind direction (degrees). Each circle = $6 \mu g/m^3 PM_{2.5}$.

Next Steps in the Prince George Airshed Plan, cont'd.

Cumulative contributions ($\mu\text{g}\cdot\text{hour}/\text{m}^3$) based on wind sector (degrees) (2000-2004)



Next Steps in the Prince George Airshed Plan, cont'd.

- **Phase II Management Recommendations (2006-2008):**
- **Fine Particulate Management Actions**
 - Increase frequency of street sweeping/dust control measures
 - Pave gravel roads within BCR Industrial Way
 - Pass Clean Air Bylaw ban on recreational fires
 - Develop strategies to reduce open burning of land-cleared debris in areas surrounding Prince George
- **Community & Regional Planning**
 - Consider alternative fuel sources for public transit & increased transportation efficiency in PG Official Community Plan

Next Steps in the Prince George Airshed Plan, cont'd.

- **Prevention of Air Quality Problems**
 - Continue vehicle emissions reductions programs
 - Expand anti-idling zones
 - Conduct diesel mobile emissions testing (Env. Canada)
 - Promote public awareness & education of air quality issues
- **Climate Change Management Actions**
 - City of PG: complete milestones of the Partners for Climate Protection Program
 - Regional District development of Landfill Gas Management Plan

Next Steps in the Prince George Airshed Plan, cont'd.

- **Monitoring & Research**
 - Prince George airshed odour study (2008)
 - Conduct research on air quality and health effects
 - Complete source apportionment studies
 - Independent review of integrated results
 - Rank emission sources for reduction under ***Phase III Plan***

Next Steps in the Prince George Airshed Plan, cont'd.

- **Other Phase II Management Needs**
- **Interim Management of New Emissions and Expansions to Existing Sources**
 - Zoning of Alternate Sites for Large Sources
 - Feasibility of Compensating for Small Sources with Offsets from Existing Sources
 - Need Improved Emission Inventory (Apportionment Study)
- **Potential for Co-management of GHG`s and PM?**
 - Further Reduction of Existing PM Sources

Next Steps in the Prince George Airshed Plan, cont'd.

- **Preparation of Phase III Plan**
 - **Will Need:**
 - PM_{2.5} Objectives (annual and 24-hour)
 - Ability to Manage both Episode and Longer-term Levels
 - Flexibility to manage emissions according to local conditions
 - Provincial Regulations and Codes
 - Stakeholder Support (Local Government, Industry, etc.)
 - Public Education
 - Public Support (PACHA)

Next Steps in the Prince George Airshed Plan, cont'd.

- **Phase III Needs, Cont'd.**
- **Voluntary or Legislated Actions?**
 - Quesnel Experience with Voluntary Plan



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Ministry of Environment, Omineca-Peace staff for preparing the data figures and Air Quality Plan summaries (Dennis Fudge and Brenda Leatham)

Please Check the MOE Posters at the Workshop.



QUESTIONS?