

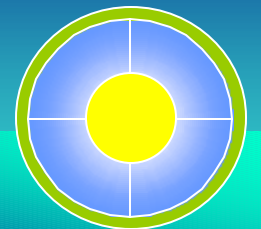
Goals and Indicators for the BVLD Airshed Plan

A Presentation to Community
Working Groups
June 2003



Overview

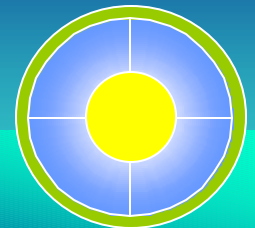
- Setting targets
- Existing objectives and reference levels
- Comparison to BVLD air quality
- Quality of Life Indicators
- Regional vs. Community Targets
- Potential Targets
- Justifications/Strategies for setting targets



Setting Targets

- Assessment of air quality
- Establish criteria for new/changing sources
- Episode management strategies
- Long-term management strategies
- Progress evaluation

State of Knowledge Report Draft, Ministry of Water, Land and Air Protection 2002



National Levels

- Canada-Wide Standards (CWS)
 - PM_{2.5}: 30 $\mu\text{g}/\text{m}^3$, 24 hour average (achievement based on annual 98th percentile averaged over 3 consecutive years by 2010)
 - PM₁₀: not defined
- National Ambient Air Quality Objectives: Reference Levels
 - PM_{2.5}: 15 $\mu\text{g}/\text{m}^3$, 24 hour average
 - PM₁₀: 25 $\mu\text{g}/\text{m}^3$, 24 hour average



What is a Reference Level?

- Defined as:

Level above which there is statistical confidence in the relationship between concentration of pollutant and response (ie. health effect)

Therefore...

Do not interpret as a threshold of effects



Provincial Levels

- PM10: Maximum Acceptable 24 hour average of $50\mu\text{g}/\text{m}^3$
 - In response to growing concerns about health (developed in 1995)
 - $50\mu\text{g}/\text{m}^3$ viewed as level where health effects were demonstrated
 - Consistent with objectives in California
 - Is an acceptable interim objective (however no Maximum Desirable level has been defined-long term protection for all environments)



Environmental Appeal Board Hearing Results

- Appeal hearings held concluded November 9, 2000 with respect to section 44 of the Waste Management Act (1996) regarding issuance of permits for beehive burners
- Participants included CanFor, HFP, PIR, MWLAP, BC Lung Assoc. and three private citizens
- Report (90 pages) on results of appeal issued April 25, 2002

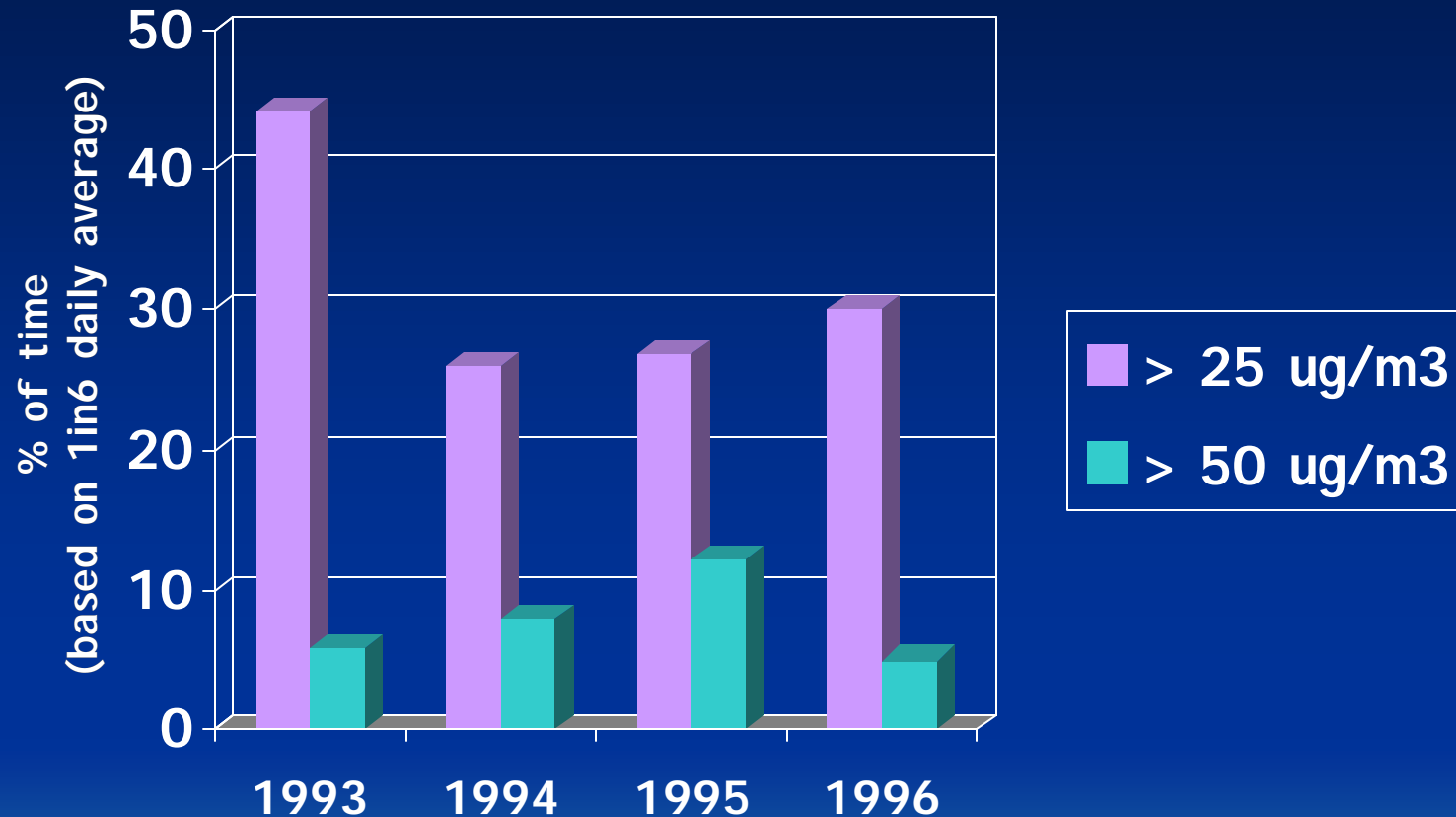


EAB ruling on setting objectives

- Panel ruled that it is reasonable for the Ministry to set objectives for specific areas of the province, taking into account provincial objectives and regional air quality and health considerations
- The Panel “finds it is reasonable and appropriate to apply an air quality objective of $25\mu\text{g}/\text{m}^3$ for the Bulkley Valley” (p. 53); note that this objective is consistent with national guidelines



Hazelton PM10 Levels

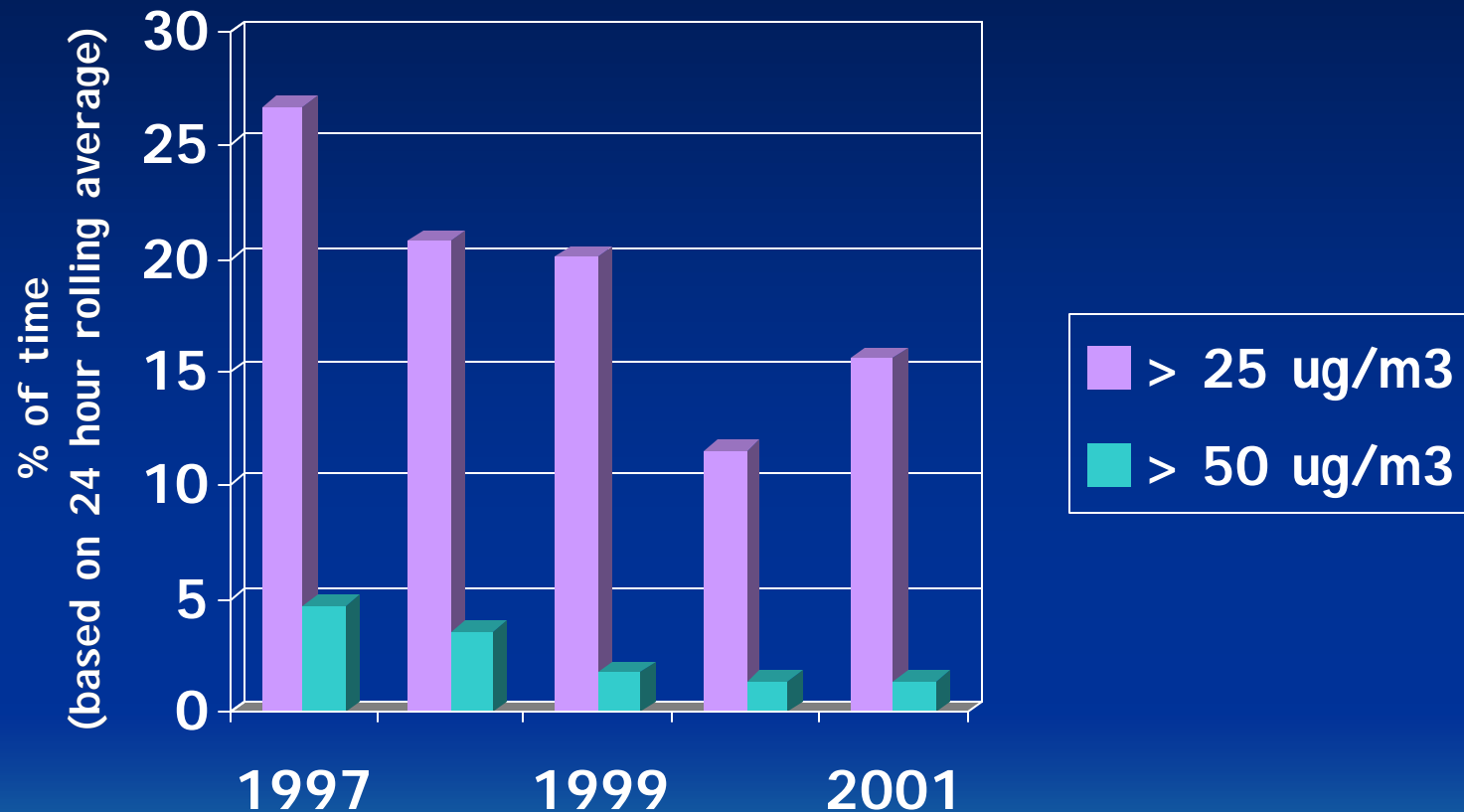


Note: -1993 data covers March 8 onwards
-1996 covers only to September 12

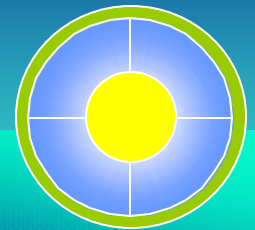


Houston PM10 Levels

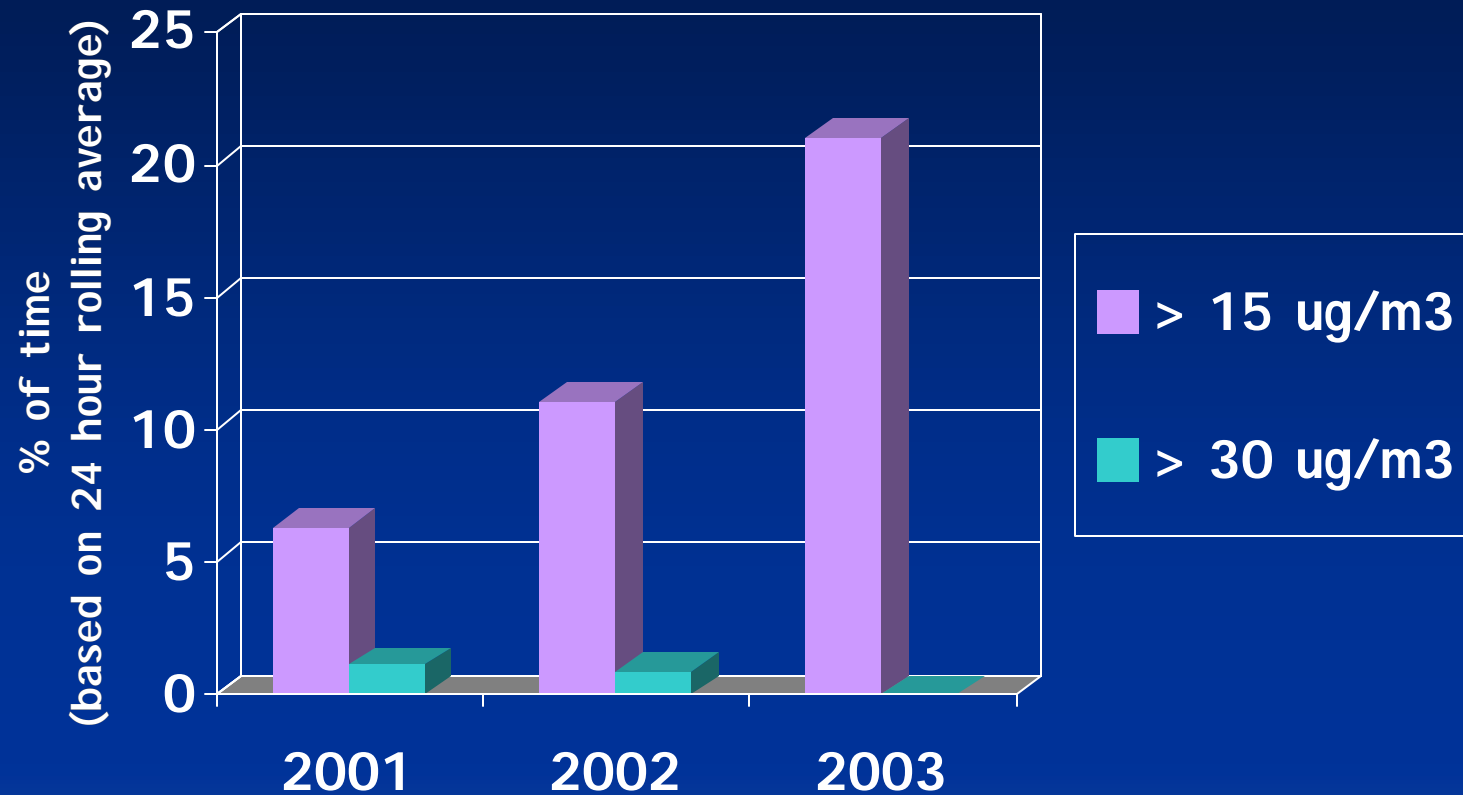
(Levelton Consultants Ltd. 2002)



Note: -1997 data covers Feb 10 onwards
- 2001 covers only to Dec 1



Houston PM2.5 Levels

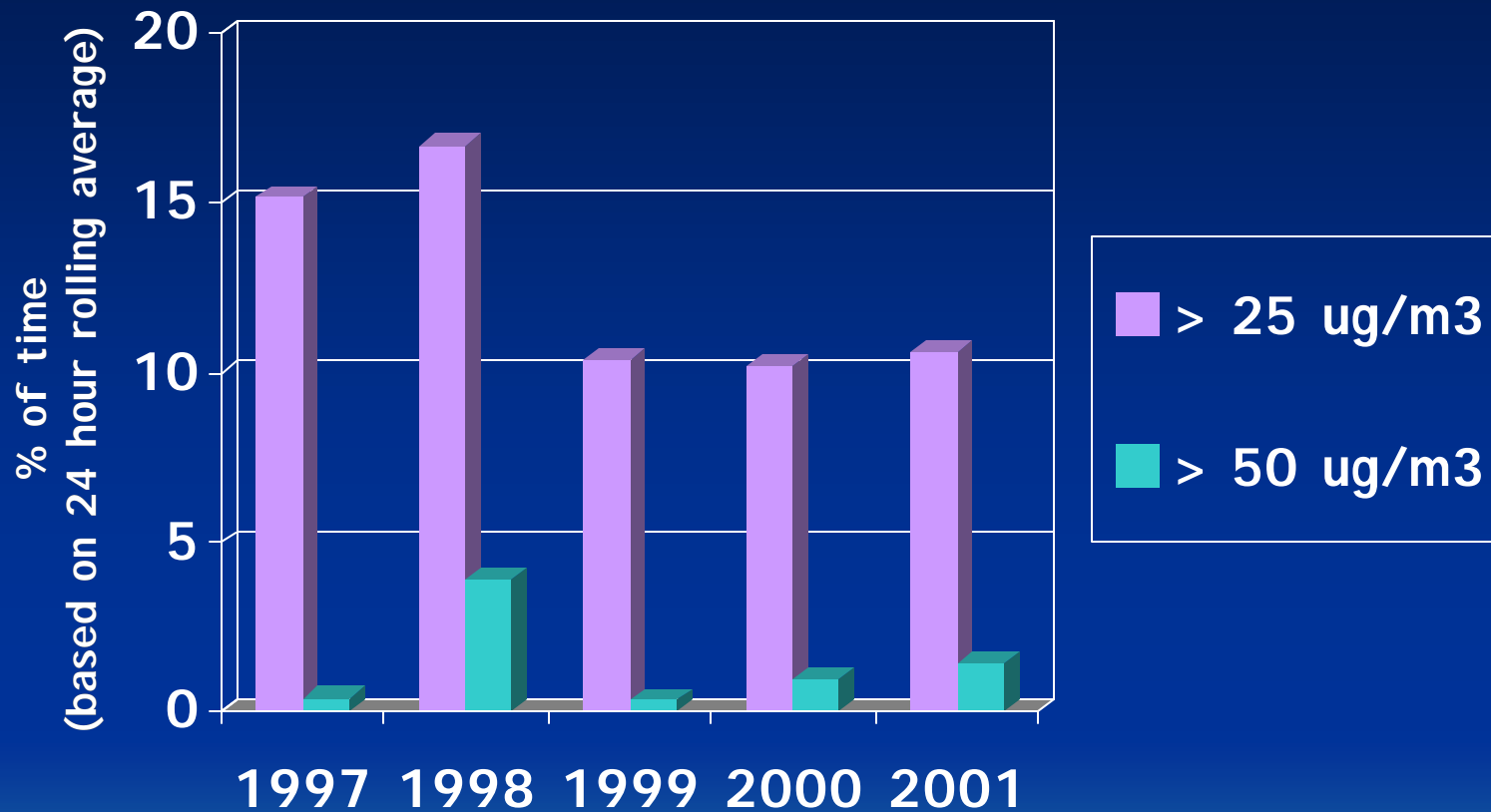


Note: -2001 data covers July 26 onwards
- 2003 covers only to Jan 31



Smithers PM10 Levels

(Levelton Consultants Ltd. 2002)

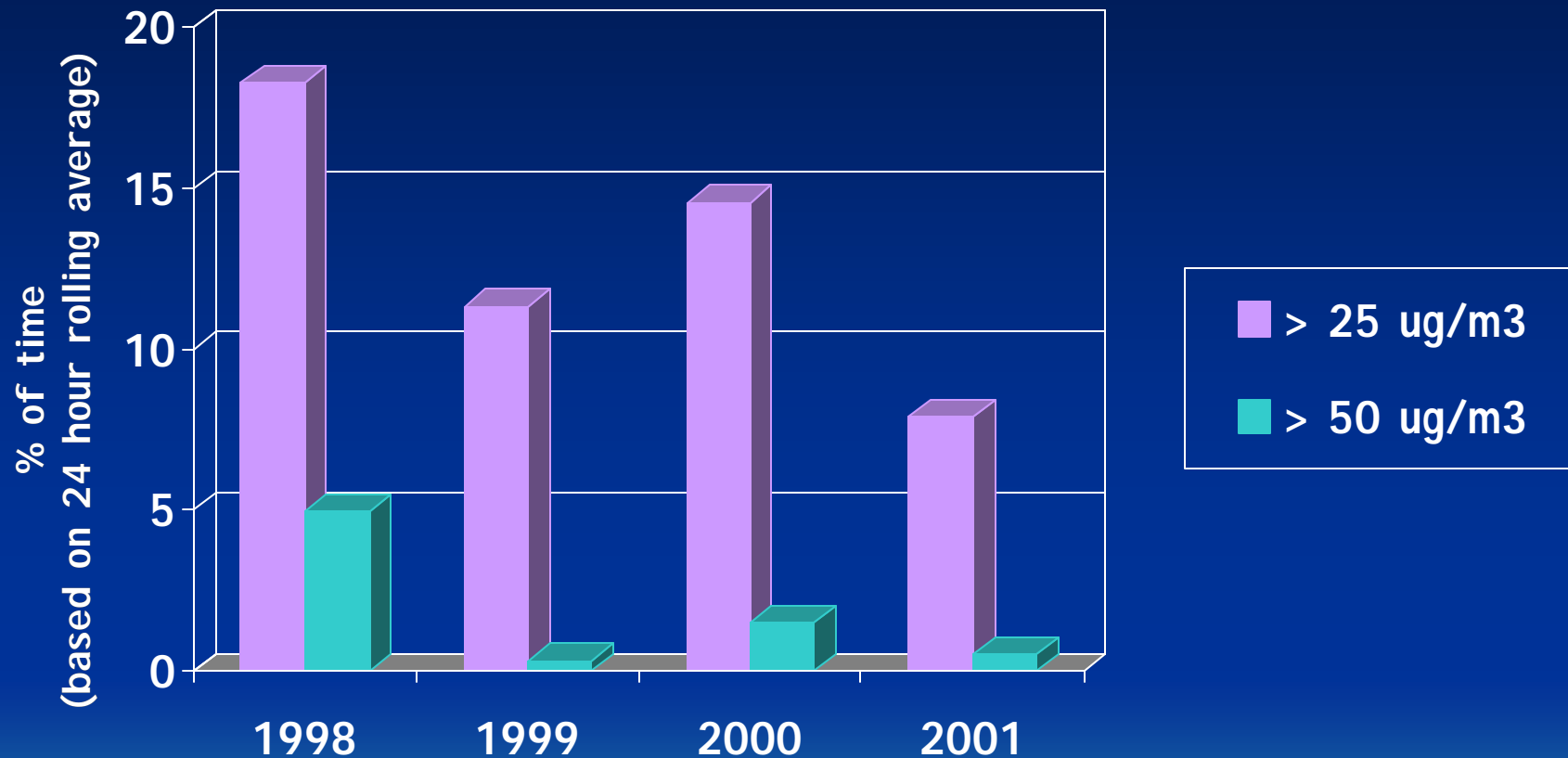


Note: -1997 data covers Feb 11 onwards
- 2001 covers only to Dec 1



Telkwa PM10 Levels

(Levelton Consultants Ltd. 2002)

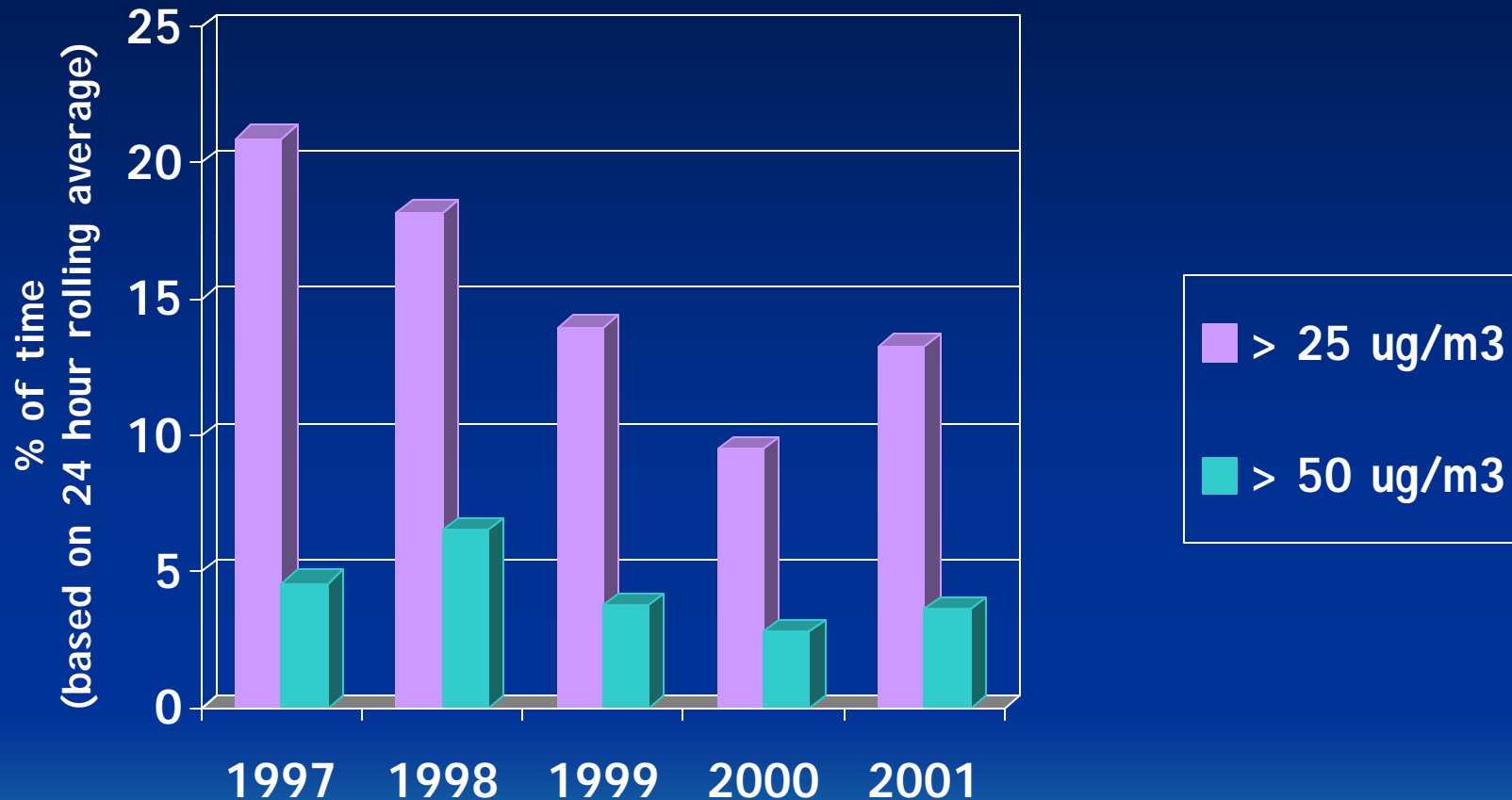


Note: -1998 data covers Feb 4 onwards
- 2001 covers only to Dec 1

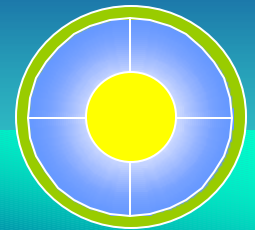


Burns Lake PM10 Levels

(Levelton Consultants Ltd. 2002)



Note: -1997 data covers March 8 onwards
- 2001 covers only to Dec 1



Summary of Data

- All 4 communities regularly exceed PM10 reference level
- Exceedances of Maximum Acceptable objective ranged from almost never to more than 10% of time (*note: >10% was with non-continuous monitor in Hazelton ie. 1 day in 6*)
- PM2.5 data for only full year (2002) shows >10% of time above reference level, and very low frequency above CWS



Quality of Life Indicators

- School absenteeism
- Missed days of work
- Ability to have clear view of scenery
- # jobs in region
- # air quality complaints per year
- Others?



Regional and Airshed-Wide Potential Targets

- Decrease airshed-wide emissions from all sources by $X\%$ for year 200?
- Decrease community emissions from source A by $Y\%$ for year 200?
- Fewer exceedances of target by 200? in community or entire airshed
- Others?



Justifications/Strategies for Setting Targets

- Attainable
- Results-based
- Improve Quality of Life
 - Protective of health and environment
 - Economic Development
- Others?

