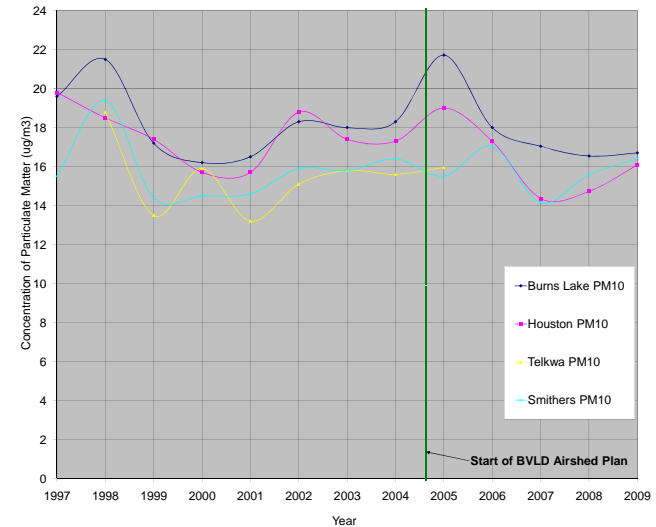


# Ambient Air Quality in the BVLD

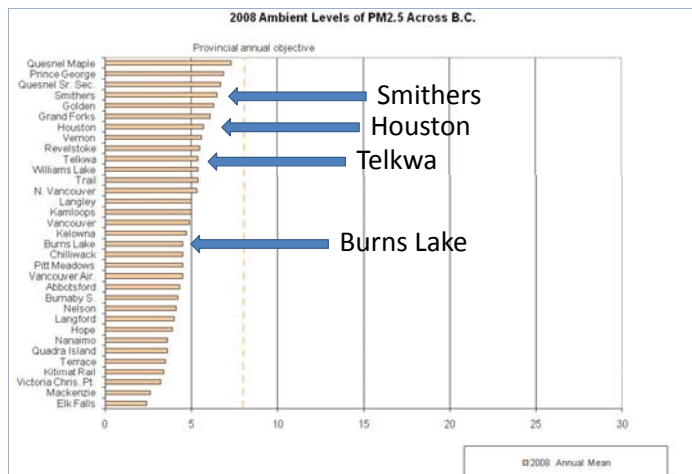
## PM10 Advisory-Level Days in the BVLD

Month	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January							3				1	1	
February	2	6						1	5	4	2	2	1
March	5	13	4	7	4	3	8	8	7	8	4	8	3
April	6	4	3	1	7	7	2	1		5	5		6
May	2	1				1							1
June			1			1							
July													
August					1								
September													
October	4	2					1						
November	1	2	6			8	5		1	1		1	1
December	1			1								2	
<b>Total</b>	<b>21</b>	<b>28</b>	<b>14</b>	<b>9</b>	<b>12</b>	<b>20</b>	<b>19</b>	<b>10</b>	<b>13</b>	<b>18</b>	<b>12</b>	<b>14</b>	<b>12</b>

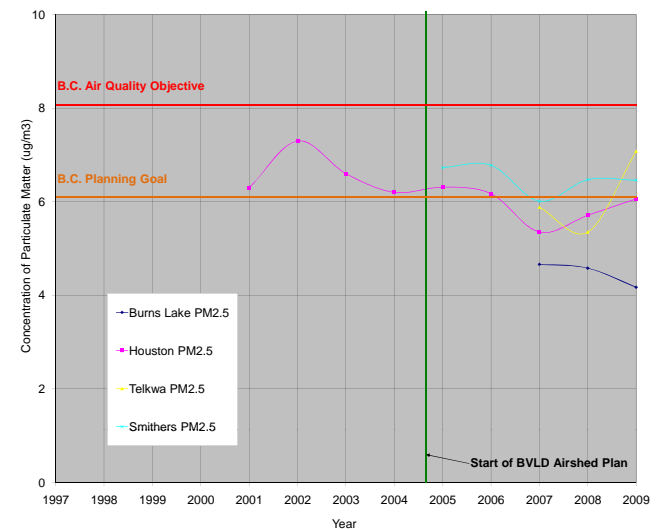
## Annual Average PM10 Concentration



## Comparison of BVLD Communities - 2008



## Annual Average PM2.5 Concentration



# A History of Advisory-Level Days

PM2.5

Burns Lake

Month	2006	2007	2008	2009
January		1		
February		2		
March				
April				
May				
June				
July				
August				
September				
October				
November				
December	2			
<b>Total</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>

Houston

Month	2001	2002	2003	2004	2005	2006	2007	2008	2009
January			1	2	1			1	
February			1				1		2
March			1						
April									
May									
June									
July									
August					1				
September		1							
October		1							
November	4	1	2	3		2	1	4	
December			2		1	1			
<b>Total</b>	<b>4</b>	<b>3</b>	<b>7</b>	<b>5</b>	<b>3</b>	<b>3</b>	<b>2</b>	<b>5</b>	<b>2</b>

Smithers

Month	2004	2005	2006	2007	2008	2009
January		1		1		
February				2		
March						
April						
May						
June						
July					1	
August						
September						
October						
November	2		1			
December	2		2		3	1
<b>Total</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>2</b>

BVLD Airshed

Month	2001	2002	2003	2004	2005	2006	2007	2008	2009
January			1	2	2		1	1	
February			1				2		1
March			1						
April									
May									
June									
July									1
August									
September									
October		1							
November	4	3	2	5		2			
December			2	2	1	2	1	6	1
<b>Total</b>	<b>4</b>	<b>4</b>	<b>7</b>	<b>9</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>7</b>	<b>3</b>

Burns Lake

PM10

Month	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January											1		
February		4			1			1	1		2		
March	1	11	2	7	5	2	7	7	1	8	4	8	3
April	6	3	2	1	7	2	2	2		5	5		6
May													1
June													
July													
August													
September													
October			1				1						
November	1		6			7	3					1	1
December												1	
<b>Total</b>	<b>8</b>	<b>19</b>	<b>10</b>	<b>8</b>	<b>13</b>	<b>11</b>	<b>13</b>	<b>10</b>	<b>2</b>	<b>13</b>	<b>12</b>	<b>10</b>	<b>11</b>

BVLD Airshed

Month	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January							3				1	1	
February	2	6						1	5	4	2	2	1
March	5	13	4	7	4	3	8	8	7	8	4	8	3
April	6	4	3	1	7	7	2	1		5	5		6
May	2	1				1							1
June			1			1							
July													
August						1							
September													
October	4	2					1						
November	1	2	6			8	5		1	1		1	1
December	1			1								2	
<b>Total</b>	<b>21</b>	<b>28</b>	<b>14</b>	<b>9</b>	<b>12</b>	<b>20</b>	<b>19</b>	<b>10</b>	<b>13</b>	<b>18</b>	<b>12</b>	<b>14</b>	<b>12</b>

Houston

Month	1997	1998	1999	2001	2002	2003	2004	2005	2006	2007	2008	2009
January											1	
February	1							5	3			1
March	5	9	2	4	3	6	3	7	4		4	
April	4	2	1		6	1	1					1
May												
June												
July												
August												
September												
October	1	1										
November	1	1	1		4	1		1			1	
December	1											
<b>Total</b>	<b>13</b>	<b>13</b>	<b>4</b>	<b>4</b>	<b>13</b>	<b>8</b>	<b>4</b>	<b>13</b>	<b>9</b>	<b>0</b>	<b>6</b>	<b>2</b>

Smithers

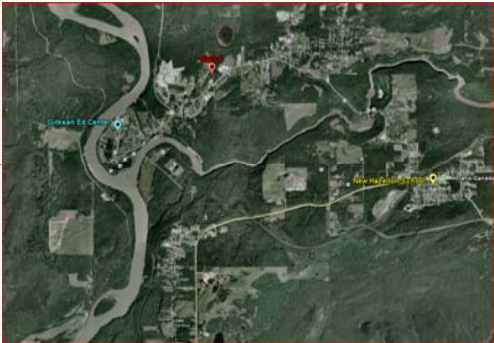
Month	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
January							3						
February	1	5							1	4		2	1
March	1	8		1	3			5	1	2		4	1
April					1	3					1		
May													
June													
July													1
August													
September													
October			1										
November						2	3			1		1	
December				1									
<b>Total</b>	<b>2</b>	<b>14</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>5</b>	<b>2</b>	<b>7</b>	<b>1</b>	<b>7</b>	<b>3</b>

# Bulkley Valley – Lakes District Airshed & Air Quality Monitoring Stations

**Kitwanga School**  
 > Meteorology

**Misc. Hazelton**  
 > PM2.5 Partisols  
 > Meteorology

**Hazelton Correlation Study (2009 & 2010)**

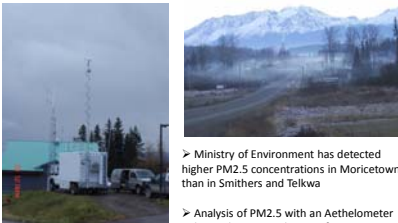


- > Goal is to find the best location to monitor in future
- > Historically, Ministry of Environment monitor has been located at NWCC
- > In 2009, dual monitors were deployed at NWCC and New Hazelton School

(units ug/m <sup>3</sup> )	NWCC	New Hazelton
Average	5.6	6.4
Maximum	26.1	34.1
98 <sup>th</sup> Percentile	22.1	26.8
# Exceedences	1	3

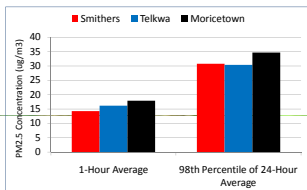
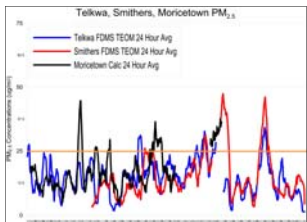
- > In 2010, dual monitors are deployed at NWCC and Gitksan Ed. Center

## Moricetown Mobile Air Monitoring Study – Winter 2009



> Ministry of Environment has detected higher PM2.5 concentrations in Moricetown than in Smithers and Telkwa

> Analysis of PM2.5 with an Aethelometer indicates large contributions from woodsmoke



**Smithers St. Joes**  
 > PM2.5 TEOM  
 > PM10 TEOM  
 > PM2.5/10 FDMS TEOM  
 > PM2.5/10 Partisol  
 > CO  
 > Nox  
 > O3  
 > Meteorology

**Telkwa**  
 > PM2.5 TEOM  
 > PM2.5 FDMS TEOM  
 > PM2.5 Partisol  
 > Meteorology  
 > Precipitation

**Houston Firehall**  
 > PM2.5 TEOM  
 > PM10 TEOM  
 > Meteorology

**Burns Lake Fire Center**  
 > PM2.5 TEOM  
 > PM10 TEOM  
 > Aethelometer  
 > Meteorology