

Air Quality Management Plan

clean air

breathe easy





Air Quality Management Plan for Greater Vancouver

1. SUSTAINABILITY

Sustainability encompasses community well-being, economic prosperity, and environmental integrity; it is the core of Greater Vancouver's vision for the future. The Sustainable Region Initiative identifies the need for a series of plans to address the delivery of programs and services according to the principles of sustainability. The plans set strategic directions and formalize policies and actions that will provide health, economic and environmental benefits for the region. This Air Quality Management Plan (AQMP) takes a long-term view to ensure that clean air will still be available for future generations.

Sustainability and the Air Quality Management Plan

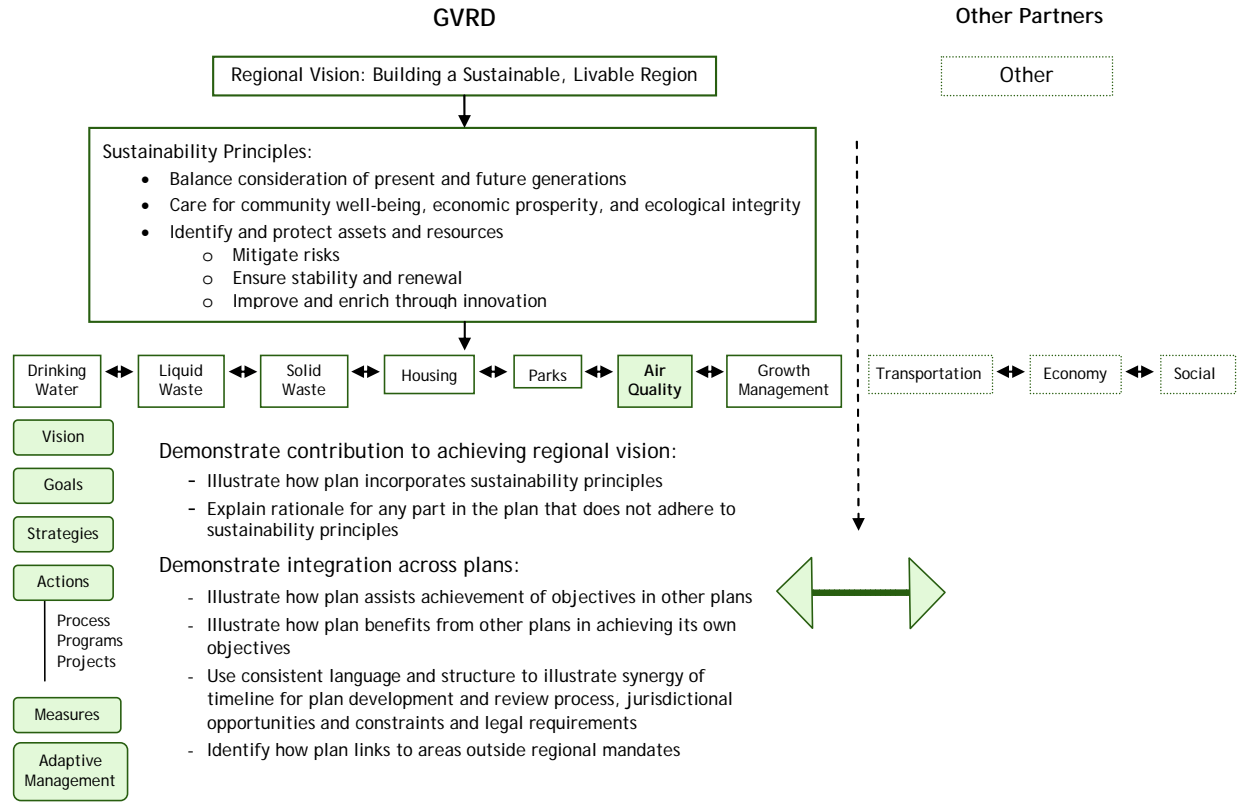
The AQMP provides a management framework to maintain and improve air quality in the region. Predicted changes in our society, economy and environment have the potential to degrade the quality of Greater Vancouver's air. Although Greater Vancouver currently experiences good regional air quality relative to most other urban areas, emissions of some air contaminants – such as particulate matter and greenhouse gases – are forecast to increase as a result of predicted growth in population, trade and transportation. The AQMP will contribute to creating a more sustainable region by reducing emissions from human activities.

Actions that reduce emissions of common air contaminants and increase energy efficiency will be the most sustainable. Greater reliance on renewable energy sources and technologies with low or no emissions will directly benefit public health, the environment, tourism and agriculture. A shift towards a less energy-intensive region will be necessary in the long-term. In the short-term, emission reductions and associated benefits can be achieved by adopting more efficient operating practices, and using cleaner fuels and emission control technologies to make combustion as clean and efficient as possible. The costs of implementing emission reduction strategies will be somewhat offset as a result of reduced energy consumption.

Links between the Air Quality Management Plan and other Regional Plans

The Sustainable Region Initiative (SRI) provides the framework for linking the AQMP with other plans such as the Regional Growth Strategy, the Regional Parks and Greenways Plan, the Solid Waste Management Plan, Drinking Water Management Plan, and the Liquid Waste Management Plan. The following figure shows the relationships between the regional vision, sustainability principles and individual plans.

Sustainable Region Initiative Framework for Regional Mandates



The following table identifies linkages between the AQMP, other regionally mandated plans and activities delivered by other partners.

| Plan | To help achieve objectives in other plans, the AQMP will: | To benefit the AQMP, other plans will: |
|--|--|--|
| GVRD mandated plans | | |
| Regional Growth Strategy | Provide residents with clean and healthy air and hence make the region more “livable.” Reduce the deposition of air pollutants to vegetation thereby helping to maintain ecological integrity and agricultural food production. | Achieve a compact metropolitan region, build complete communities and increase <i>clean</i> transportation choice, thereby encouraging residents to use their cars less and live in more energy efficient housing. |
| Regional Parks and Greenways Plan | Reduce the deposition of air pollutants that may cause damage to park ecosystems. | Protect regional carbon sinks in the Green Zone, thereby offsetting some of Greater Vancouver’s greenhouse gas emissions. |
| Utility plans | Reduce the deposition of air pollutants that may cause contamination of water resources. | Increase energy efficiency, reduce demand for infrastructure services, and reduce emissions through improved design and operations. |
| Activities delivered by others | | |
| Transportation | Provide support for increased <i>clean</i> transit provision. | |
| Social | Minimize the risk to public health from air pollution and improve quality of life. | |
| Economy | Promote energy efficiency, energy cost savings and technological innovation. Decrease air pollution-related costs to the public health care system. | |

Vision for a Sustainable Future

Social, economic and environmental sustainability is a fundamental objective in all GVRD activity, from the corporate level through to the service delivery mandates, and from the various management plans to partnerships with external agencies for actions beyond the GVRD mandates. The AQMP will contribute to a sustainable region by providing:

Clean and healthy air for current and future generations.

Goals of the Air Quality Management Plan

The AQMP has three primary goals:

- ***Minimize the risk to public health from air pollution***
The freedom to breathe clean air is a basic human right. The GVRD is committed to minimizing the risk to public health from air pollution.
- ***Improve visibility***
The public often uses the clearness of our beautiful vistas as a general “yardstick” to gauge the level of air pollution. With improved visibility, the residents of Greater Vancouver and visitors can better enjoy the region’s magnificent scenery.
- ***Minimize Greater Vancouver’s contribution to global climate change***
Climate change is occurring worldwide. Greater Vancouver has a global responsibility to reduce its greenhouse gas emissions, thereby minimizing its contribution to global climate change.

The key strategies and actions to achieve the goals of the AQMP are set out in Section 3.

2. AIR QUALITY IN GREATER VANCOUVER

Greater Vancouver’s air quality compares favourably to that of other major North American cities. However, we still do not meet our ambient air quality objectives all of the time. In addition, over the next 15-20 years emissions of primary particulate matter, several ozone and particulate matter precursors, and greenhouse gases are predicted to increase significantly as a result of growth in population, international trade and transportation. If we conduct “business as usual” and allow these emissions to increase, ambient air quality will deteriorate. To improve air quality in Greater Vancouver, emissions reductions will need to come from all sectors. The AQMP identifies actions that will result in improved air quality and significant societal benefits based on the following principles:

- | | |
|---------------------------------------|---|
| <i>Pollution Prevention:</i> | Using processes, practices, materials and energy in ways that avoid or minimize the creation of pollutants and wastes at the source |
| <i>Continuous Improvement:</i> | Taking remedial and preventative actions to reduce emissions from human activities towards the long-term goal of reducing overall ambient concentrations and health risks |
| <i>Achieving Co-benefits:</i> | Favouring actions that reduce both common air contaminants <u>and</u> greenhouse gas emissions |
| <i>Shared Responsibility:</i> | Partnering with other jurisdictions to address common priority issues, and building awareness and motivating action in all sectors of society |
| <i>Innovative Approaches:</i> | Using market-based and community-based approaches to complement conventional air quality management |

3. STRATEGIES AND ACTIONS

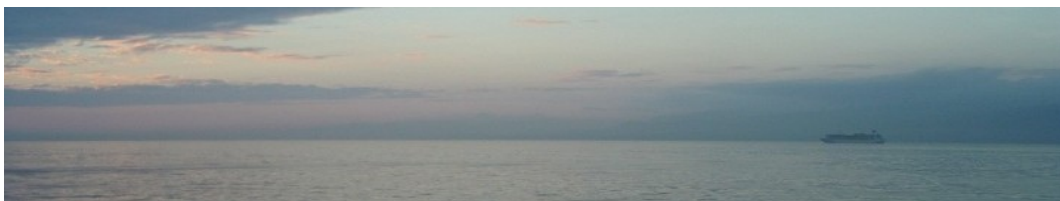
Strategies for achieving the AQMP goals include:

1. **Reduce emissions from major regional sources**
2. **Develop and implement local air quality management programs**
3. **Enhance air quality information and public awareness**

The actions under each strategy will be prioritized based on their potential to reduce public exposure to pollutants that pose the highest risk to human health, and their potential to achieve greenhouse gas co-benefits. Cost-effectiveness, technical feasibility, community and other concerns will be considered as actions are further refined and implemented.

Strategy #1: Reduce Emissions from Major Regional Sources
 Reducing primary particulate matter emissions, as well as ozone and particulate matter precursor emissions from the major sources in the Lower Fraser Valley will help to *minimize the risk to public health from air pollution* and *improve visibility*. Reducing greenhouse gas emissions from the major sources in the Lower Fraser Valley will *minimize Greater Vancouver's contribution to global climate change*. This strategy has the following actions, grouped by source:

| Actions for MARINE SOURCES | |
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| <p><i>The GVRD will:</i></p> <ol style="list-style-type: none"> 1. Increase GVRD's influence with respect to marine vessels and port operations. | <p>The GVRD will seek to obtain an agreement with the port authorities requiring that lessees obtain GVRD air quality permits similar to those required on private land, and adhere to permit requirements, as a lease condition.</p> <p>With other governments and agencies, the GVRD will investigate potential localized air quality impacts associated with marine vessels and port operations, and pursue action if necessary.</p> |
| <ol style="list-style-type: none"> 2. Partner with other government organizations to identify and implement emission reduction measures for <i>ocean-going vessels, ferries, harbour vessels, and port operations</i>. | <p>The federal government and the International Marine Organization (IMO) regulate marine vessel emissions. Therefore, the GVRD will partner with these organizations and local operators to identify and implement cost-effective particulate matter, nitrogen oxide and sulphur dioxide emission reduction measures for marine vessels and port operations (e.g., trucks, locomotives, cargo handling equipment). Measures may include, but not be limited to:</p> <ul style="list-style-type: none"> • establishing an IMO Sulphur Emissions Control Area on the Coast of North America (ocean-going vessels) • installing improved engine technology • improving fuel quality and composition • improving on- and off-shore operating practices. <p>Through the Georgia Basin Marine Vessel Working Group, the GVRD will continue to recommend that the ports show leadership by implementing these types of measures.</p> |



Actions for CARS, TRUCKS AND BUSES

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| <p><i>The GVRD will:</i></p> <p>3. Seek to continue emission inspection and maintenance programs that effectively reduce emissions from light and heavy-duty vehicles.</p> | <p>With the provincial government, the GVTA and the Fraser Valley Regional District, the GVRD will help to design and implement more effective and user-friendly emissions inspection and maintenance programs for the most polluting light and heavy-duty vehicles. In conjunction with other partners, the GVRD will also put more emphasis on diesel emissions, as diesel vehicles are anticipated to increase in popularity.</p> |
| <p>4. Facilitate on-road diesel engine retrofits and accelerate the use of cleaner fuels.</p> | <p>To reduce diesel particulate matter, nitrogen oxide and greenhouse gas emissions from existing on-road diesel engines, the GVRD will partner with interested public and private on-road diesel fleet managers to identify promising emission reduction measures. The GVRD will seek funding from senior levels of government to defray costs of equipment retrofits and/or cleaner fuels.</p> |
| <p>5. Request that the GVTA achieve emission reductions by incorporating the regional air quality objective of continuous improvement into management of the transit fleet through acquisition of low emission vehicles/fuels and retrofits to older vehicles.</p> | <p>The GVTA Act requires the GVTA to support GVRD air quality objectives. In part, this may be achieved by incorporating the regional air quality principle of continuous improvement into the fleet management program through acquisition of new low emission transit vehicles/fuels and through retrofits to older vehicles and vessels. The air emission characteristics of the fleet should be reported in the GVTA annual report.</p> |
| <p>6. Promote adoption of the GVRD's model anti-idling bylaw by local governments, and assist major transport centres with the introduction of anti-idling measures.</p> | <p>The GVRD's model anti-idling bylaw, for adoption and enforcement by local governments, applies to private and commercial cars, trucks and buses. The GVRD will provide technical assistance and advice to local governments that wish to adopt this model bylaw.</p> <p>With the federal and provincial governments, and major transport centre operators, the GVRD will help to develop idling reduction policies and plans for major transport centres such as the ports, and cruise ship, train and bus terminals.</p> |
| <p>7. Develop a model Sustainable Fleet Management Policy for use by businesses and local governments.</p> | <p>The GVRD will develop a model Sustainable Fleet Management Policy, inform businesses and local governments about the benefits of such a policy and help them apply it to their unique fleets.</p> |
| <p>8. Promote trip reduction services in business and residential outreach programs.</p> | <p>The GVRD will continue to promote the benefits of combining multiple errands in one-vehicle trips and the GVTA's programs that provide alternatives to single-occupancy vehicle transportation.</p> |
| <p>9. Strongly encourage the federal government to implement stringent national fuel efficiency standards for light and heavy-duty vehicles.</p> | <p>The GVRD will continue to actively encourage the federal government to implement stringent national fuel efficiency standards for light and heavy-duty vehicles, with the proviso that they will not result in increased particulate matter emissions.</p> |
| <p>10. Strongly encourage the federal and provincial governments to promote cleaner, fuel-efficient vehicle purchases by providing financial incentives.</p> | <p>To encourage cleaner, fuel-efficient vehicle purchases and increase their representation in the private vehicle fleet, the GVRD will recommend that the federal and provincial governments provide private vehicle owners with additional incentives such as rebates and reduced sales taxes.</p> |

Actions for CONSTRUCTION, RAIL AND AGRICULTURAL EQUIPMENT

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| <p><i>The GVRD will:</i></p> <p>11. Strongly encourage ongoing federal government actions to improve national non-road engine emission and fuel standards.</p> | <p>Environment Canada is developing national regulations to restrict the level of sulphur in non-road diesel fuel and establishing emission standards for some non-road sources (e.g., small spark-ignition engines, compression ignition engines and other categories of non-road engines - outboard engines and personal watercraft, recreational vehicles, and large spark-ignition engines). Environment Canada is also investigating how greenhouse gas emissions can be reduced from the non-road sector. The GVRD will participate actively in federal consultation on emerging non-road regulations, and recommend implementation of the strictest feasible non-road engine and fuel emission standards that will reduce particulate matter, sulphur dioxide, nitrogen oxide, volatile organic compound and greenhouse gas emissions as soon as possible.</p> |
| <p>12. Facilitate non-road diesel engine retrofits and accelerate the use of cleaner fuels.</p> | <p>To reduce particulate matter, sulphur dioxide, nitrogen oxide, volatile organic compound and greenhouse gas emissions from existing non-road engines, the GVRD will encourage users of non-road equipment (such as construction companies and local governments) to implement cost-effective emission reduction measures. The GVRD will seek funding from federal sources to defray costs of equipment retrofits and/or using cleaner fuels.</p> |
| <p>13. Partner with other governments to investigate and implement measures to reduce emissions from locomotives and railway maintenance equipment.</p> | <p>Since rail emissions are regulated by the federal government, the GVRD recommends that they establish a railway emission working group to investigate nitrogen oxide and diesel particulate matter emission reduction measures for diesel locomotives operating in the Lower Fraser Valley Airshed. For example, the rail industry could reduce fuel consumption and emissions by using idling control devices, electronic fuel injection and automatic stop/start systems, new hybrid electric switcher locomotives in local railyards, and changing rail lubrication to reduce rolling resistance. As with other non-road engines, the GVRD will strongly encourage the federal government to adopt stringent locomotive engine standards that will reduce particulate matter and nitrogen oxide emissions.</p> |



Actions for INDUSTRIAL, COMMERCIAL AND INSTITUTIONAL (ICI) SOURCES

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| <p><i>The GVRD will:</i></p> <p>14. Require continuous improvement from ICI point sources by developing a tiered approach that includes incentives, voluntary and mandatory initiatives, and innovative approaches.</p> | <p>In consultation with ICI point sources, the GVRD will develop a fair regulatory program, based on continuous improvement by:</p> <ul style="list-style-type: none"> • requiring new and modified ICI sources to minimize their emissions, thereby avoiding adverse health impacts and environmental degradation, • requiring new, and modified, major ICI sources to identify opportunities for common air contaminant and greenhouse gas emission trading and/or offsets, • developing business assistance and recognition programs to encourage businesses to adopt pollution prevention and eco-efficiency measures, • establishing sector-based emission standards and/or set performance standards for process or equipment modifications, • managing emissions from ICI point sources in conjunction with local air quality planning initiatives, and • reviewing the funding strategy for the air quality regulatory system. |
| <p>15. Strongly encourage Washington State authorities to implement ICI actions that support continuous improvement.</p> | <p>As Whatcom County’s primary metals and petroleum refineries are significant sulphur oxide emission sources in the Lower Fraser Valley, the GVRD will recommend that Northwest Clean Air Agency and Washington State Department of Ecology require these facilities to upgrade to the best available technology.</p> |
| <p>16. Develop, promote and implement best management practices for priority area emission sources.</p> | <p>The GVRD will develop and implement best management practices (BMPs) to reduce emissions from priority area sources using regulatory tools, economic instruments and voluntary approaches as appropriate. For example, BMPs are under development to reduce emissions from the construction and demolition industry. Based on the results of several recent studies, the GVRD will develop a list of additional priority sectors that will require BMP development and implementation.</p> |
| <p>17. Support the development of federal and provincial government ICI emission reduction programs, and implement locally relevant actions that support continuous improvement.</p> | <p>The GVRD will participate in developing national and provincial ICI emission reduction initiatives, and strive for the most stringent regulations and guidelines feasible. For example, the GVRD will promote locally relevant actions in the federal agenda to reduce volatile organic compounds from consumer and commercial products, such as those for architectural and industrial maintenance coatings.</p> |
| <p>18. Implement an odour management strategy.</p> | <p>The GVRD recently developed a draft odour management strategy that outlines decision-making frameworks, odour evidence collection methods, triggers for odour assessment and enforcement actions, and effective complaint management and communication protocols. This strategy will be implemented following further stakeholder and public consultation.</p> |

Actions for COMMUNITIES

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| <p><i>The GVRD will:</i></p> <p>19. Partner with local governments, businesses and major utilities to develop and promote clean and efficient energy sources and technologies for space heating.</p> | <p>By developing and promoting clean and energy efficient space heating (such as low energy use building design and operations, community energy systems, and heating alternatives to fossil fuel combustion like geo-exchange, passive solar gain, active solar, etc.), the GVRD and other partners will help reduce emissions of particulate matter, nitrogen oxides and greenhouse gases.</p> |
| <p>20. Strongly encourage the provincial government to enact a minimum efficiency regulation for new residential furnaces and boilers, and develop public education programs to achieve early introduction of these more efficient units.</p> | <p>The GVRD will encourage the provincial government to enact their planned energy efficiency regulation for residential furnaces and boilers as early as possible. Should this regulation not come to fruition, the GVRD could enact a regional bylaw to the same effect. Through homeowner information programs, the GVRD will encourage the early introduction of high efficiency heating and cooling equipment, and the use of clean heat sources.</p> |
| <p>21. Strongly encourage the senior governments to develop and implement a regulation on the manufacture and sale of wood-burning appliances, and implement an old wood-burning appliance change-out program.</p> | <p>The GVRD will proactively partner with the provincial and federal governments to develop a regulation that would control the types of appliances manufactured, sold or used in Canada with a goal of reducing common air contaminant emissions from residential wood burning. Should this regulation not come to fruition, the GVRD could enact a regional bylaw to the same effect.</p> <p>To accelerate the turn-over of old, inefficient wood-burning appliances, incentives need to be given to encourage residents to purchase units that are more energy efficient and meet more stringent emission standards. In addition, a public outreach program will give information about the costs and benefits of cleaner fuels and technologies. This program will also inform the public about the risks of improper installation, operation and maintenance of wood-burning appliances.</p> |
| <p>22. Assist interested parties to identify and implement energy reduction measures in new building construction, renovation and retrofit projects by providing them with educational materials, business case analyses and technical assistance.</p> | <p>To increase the proportion of new green building construction in Greater Vancouver, the GVRD will help local governments use rating systems such as Leadership in Energy & Environmental Design (LEED®) for their civic buildings. The GVRD will also promote acceptance and application of green building principles, strategies, and technologies among professionals and building developers.</p> <p>Through education and outreach efforts, the GVRD will support the application of a rating system, such as LEED for Existing Buildings (LEED-EB®), to civic building retrofits and operations and encourage its application to private sector retrofit projects for commercial and institutional buildings.</p> |
| <p>23. Pilot and demonstrate the use of shared or renewable energy source technologies.</p> | <p>To increase the use of alternative or renewable energy source technologies in Greater Vancouver, the GVRD will pilot and demonstrate innovative projects based on potential benefit, ease of replication, effectiveness, funding and partnership opportunities, and market acceptance.</p> |

| Actions for COMMUNITIES (continued) | |
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| 24. Expand the delivery of a natural yard care outreach program for homeowners. | In partnership with several local governments, community and professional groups, the GVRD has developed a program that encourages homeowners to adopt more sustainable yard care practices such as reducing or eliminating the use of chemical fertilizers, gasoline-powered lawn mowers and other yard care equipment. The GVRD plans to work with local governments and delivery partners to expand this program to reach more residents. |
| 25. Incorporate the AQMP's goals into long-range plans, such as the Regional Growth Strategy, and Transportation Plan. | To protect air quality, the GVRD will explicitly consider the implications for air quality and global climate change while developing other long-range plans. The GVRD will also provide an air quality framework for transportation planning and development. |
| 26. Establish a regional greenhouse gas emission reduction target and program objectives, and work with local governments on the development and implementation of greenhouse gas reduction initiatives. | <p>Working with local governments, the GVRD will develop a regional greenhouse gas emission reduction target and inform the public about progress toward meeting this target.</p> <p>Community energy planning looks at a community's energy use from the perspective of long-term integrated resource planning, energy efficiency and sustainable practices. The GVRD will provide local governments with planning tools to help align their community energy plans and local greenhouse gas management plans with the goals of the AQMP.</p> <p>The GVRD will partner with other governments and non-government organizations to help identify priority areas and deliver targeted programs that reduce greenhouse gas emissions and minimize emissions of common air contaminants.</p> |
| Actions for AGRICULTURE | |
| <i>The GVRD will:</i> 27. Partner with other governments to investigate and implement measures that will reduce emissions from farm operations. | The management of manure on farms can release ammonia, which may cause odours and contribute to the formation of fine particulate matter. The GVRD will work with the appropriate policy-makers to identify and implement effective and harmonized strategies that will reduce ammonia and particulate matter emissions, reduce odour complaints, and improve visibility. On-farm stationary combustion source emissions are regulated under a GVRD Air Quality Bylaw. |



Strategy #2: Develop and Implement Local Air Quality Management Programs

It is possible that local air quality can become degraded while regional air quality remains acceptable. By developing and implementing local air quality management programs the GVRD will help to *minimize the risk to public health from air pollution*. This strategy has the following actions:

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| <p><i>The GVRD will:</i></p> <p>28. Assess and monitor possible local air quality priority areas and where needed partner with the appropriate governments, health agencies, the public and emission sources to develop and implement local air quality action plans.</p> | <p>The GVRD will use spatially allocated emission inventories and health risk information to identify possible local air quality priority areas. To confirm the existence of local air quality issues, ambient monitoring will be conducted where possible. After identifying local air quality priority areas, the GVRD will work with the appropriate governments, health agencies, the public and emission sources to develop and implement local air quality action plans.</p> |
| <p>29. Develop and implement an integrated episode advisory and management program.</p> | <p>With the help of local media, the public and key emission sectors, the GVRD will develop and implement an integrated episode advisory and management program. This program will include voluntary and mandatory emission curtailment measures for industry, commerce and residents, depending on the severity of the event.</p> |

Strategy #3: Enhance Air Quality Information and Public Awareness

To determine the quality of Greater Vancouver's air at any given time and longer-term air quality trends, the GVRD must continue to enhance monitoring of ambient air quality, conduct regular detailed emission inventories and forecasts, carry out research studies, and report to the public on these items. Residents, businesses, researchers and policy-makers can use this information to make informed decisions that will *minimize the risk to public health from air pollution, improve visibility and minimize Greater Vancouver's contribution to global climate change*. This strategy has the following actions:

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| <p><i>The GVRD will:</i></p> <p>30. Continue to conduct and enhance detailed emission inventories in concert with other jurisdictions in Canada.</p> | <p>As knowledge about health risk of air contaminants continues to grow, the GVRD will continue to improve and enhance its emissions inventories and forecasts. Adding more priority contaminants to the inventories and moving to geographic information system-based emission inventories will help to identify potential localized areas of concern. Emission inventories will also be used to evaluate the success of emission reduction measures in the AQMP.</p> |
| <p>31. Update and improve the ambient monitoring network to respond to ongoing changes in regional and local air quality management priorities and needs.</p> | <p>As air quality issues continue to emerge and monitoring technology improves, the GVRD will update and improve the monitoring network. This will ensure that the network continues to provide accurate, reliable and pertinent air quality information on issues of local, regional and national concern, as well as for the continuing assessment of the success of the AQMP.</p> |

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| <p>32. Improve communication of air quality information, and promote actions for local governments, businesses and residents.</p> | <p>The GVRD will participate in national efforts to update the Air Quality Index in order to better communicate air quality information to the public. The GVRD will continue to post ambient air quality information on its website and through an automated phone messaging system. This information is distributed to the public via some newspapers, radio and television stations.</p> <p>The GVRD will provide guidance for local governments and businesses regarding actions they can take to support the goals of the AQMP. To assist them in making informed decisions, the GVRD will continue to provide researchers and policy-makers with information on ambient air quality, emissions, emission reduction studies and other research.</p> <p>Air quality messaging will be developed so that residents become more aware of their role in improving air quality. This messaging will be incorporated into current outreach programs such as the GVRD's Home Pages.</p> |
| <p>33. Utilize the Ambient Air Quality Objectives to evaluate and report on ambient air quality in Greater Vancouver, evaluate permits, and develop regulations and air quality management programs.</p> | <p>The Ambient Air Quality Objectives (AAQOs) in the following table are based on current knowledge about air quality and health science. The intent of the AQMP is that air quality throughout Greater Vancouver will meet these AAQOs, recognizing that they may not be achieved for brief periods during natural events such as forest fires. The AAQOs will be used to formulate an integrated management program comprised of, but not limited to, the following components:</p> <ul style="list-style-type: none"> • Long-term surveillance monitoring • Reporting on the quality of the air • One of several decision factors in permit evaluation and regulation development • One of several decision factors in determining the need for and developing air quality management programs for area and mobile sources. <p>In accordance with the continuous improvement provision of the Canada-wide Standards, the AAQOs are medium-term, health-based objectives and a step towards the lowest observable effects levels.</p> |

Ambient Air Quality Objectives for Greater Vancouver ($\mu\text{g}/\text{m}^3$)

| Air Contaminant | Averaging Time | Ambient Air Quality Objectives |
|---|----------------|--------------------------------|
| Carbon monoxide | 1-hour | 30,000 |
| | 8-hour | 10,000 |
| Nitrogen dioxide | 1-hour | 200 |
| | Annual | 40 |
| Sulphur dioxide | 1-hour | 450 |
| | 24-hour | 125 |
| | Annual | 30 |
| Ozone | 8-hour | 126 |
| Inhalable particulate matter (PM_{10}) | 24-hour | 50 |
| | Annual | 20 |
| Fine particulate matter ($\text{PM}_{2.5}$) | 24-hour | 25 |
| | Annual | 12 |

4. PERFORMANCE MEASURES

The following performance measures will be used to monitor progress in achieving the goals of the AQMP over the next decade.

Goal A: Minimize the risk to public health from air pollution

- Reduce regional ambient inhalable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}) and ground-level ozone levels
- Reduce emissions of PM₁₀, PM_{2.5}, and precursors to PM₁₀, PM_{2.5}, and ozone formation
- Improve local air quality

Goal B: Improve visibility

- Reduce regional ambient PM_{2.5} levels
- Reduce emissions of PM_{2.5} and its precursors

Goal C: Minimize Greater Vancouver's contribution to global climate change

- Reduce regional greenhouse gas emissions

5. ADAPTIVE MANAGEMENT

As the region grows and changes, air quality and health science improves, and public values evolve, the AQMP will be reviewed and revised. An adaptive management approach will be taken, with an AQMP progress report every two years and a comprehensive review of the Plan every five years. Policy direction may need to be adjusted at that time to ensure the continued achievement of the AQMP's goals.

